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KARELIAN IN GRAMMARS

A study of phonetic and morphological variation

Scientific electronic edition

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The endangered Karelian language is spoken in two countries, Finland and Russia. For 150 years, Finnish and Russian linguists have written grammatical descriptions of Karelian and its varieties. The aim of this study is to summarise the diversity of the Karelian language and to point out the similarities and differences between its varieties. To this end, 21 grammatical descriptions have been analysed and compared in terms of phonetics, phonology, and morphology. Our research material comprises seven published and six unpublished descriptive grammars and also eight normative ones.

All varieties of Karelian are represented — Karelian Proper by nine, Livvi-Karelian by six, and Ludic by three grammatical descriptions, while three grammars represent the grammatical systems of common literary language varieties. Our comparative data are presented in 76 tables and commented from the point of view of linguistic variation. The study shows how and to what extent normative grammars are based on descriptive ones. Also, there are grammatical categories in Karelian on which there is little or no research. To fill in some of these gaps, the data in the grammars have been supplemented by information available in other studies, language samples, and the dialect data in *Karjalan kielen murrekartasto* [Dialect atlas of the Karelian language] (1997).

The results of our study support the view of Karelian as a single language with diverse phonetic and morphological variation characteristic to any living language. Differences between the varieties are more pronounced in terms of phonetics, whereas they are considerably more similar in terms of morphology, which shows their common grammatical structure. In a continuum of linguistic variation, differences between the varieties are explained to a great extent by linguistic contacts with other closely related languages and with Russian. Features shared by Karelian varieties and those that vary between them are summarised and examined with cluster maps. The most regionally homogeneous variety of Karelian is Livvi-Karelian. The influence of linguistic contacts is most pronounced in Ludic. Viena Karelian is rather unified, whereas the geographical isolatedness of the South Karelian varieties from one another has resulted in dialect differences. The interinfluence of South Karelian and Livvi-Karelian is most pronounced in the dialects of the former Finnish Border Karelia.

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PREFACE

The Karelian language belongs to the Northern Finnic subgroup of the Balto-Finnic branch of the Uralic language family. Its closest linguistic relatives are Ingrian, Finnish, and Veps.

The number of Karelian speakers in the Russian Federation was approximately 25,600 in 2010 according to the Russian Census of the same year. The number had halved since the 2002 census. Karelian speakers were reported to live mostly in the Republic of Karelia (19,100), in the Tver (3,641), Leningrad (573), Murmansk (397), and Moscow oblasts (116) and in the cities of Saint Petersburg (511) and Moscow (166). Karelian was regarded as their first language by 17,000 speakers (Itogi).[1] The size of the Karelian language community in Finland has been estimated at 30,000 people, 11,000 of whom have been estimated to know Karelian well or better (see Sarhimaa 2017: 111–115).

Karelian is traditionally divided into three main dialects: Karelian Proper, Livvi-Karelian, and Ludic, which are divided into dialects and further into subdialects.[2] Karelian dialect speech has been studied for as long as 150 years by Finnish, Russian (Soviet), and Estonian linguists.

The first attempts to create a literary standard for Karelian were made in the 1930s. In the present day, a few standard varieties are being developed and used to publish language study materials and literature. Karelian is taught at certain educational institutions and on courses. It is also used in the press, radio, television, and electronic mass media.

This publication presents the results of the analysis of various descriptions of the grammatical structure of the Karelian language which was conducted as part of a Finnish-Russian research project. The *Vertaileva karjalan kielioppi* [Comparative Grammar of Karelian] project ran from 2015 to 2018 and was headed by professor Lea Siilin. It was funded by the Finnish Kone Foundation. This publication is intended both for linguists and for anyone interested in the phonetics, morphology, and dialects of Karelian.

The purpose and goal of the project was

1) to document, compare, and analyse descriptive and normative descriptions of Karelian dialects and dialect groups, and to identify the common features of the Karelian language and the distinct phonetic, phonological, and morphological features of its dialects;

2) to present and publicise manuscripts of previously unpublished descriptive grammars of Karelian to the linguistics community;

3) to map which linguistic categories of Karelian have been described in detail and to identify remaining research gaps;

4) to fill in gaps in the descriptions by utilising data provided by linguistic studies, dialect dictionaries, published language samples, and the dialect atlas of the Karelian language, along with the questionnaire booklets used in the atlas's data gathering programme, which are stored in the Scientific Archives of the Karelian Research Centre of the Russian Academy of Sciences; and

---

[1] These numbers also include the speakers of Ludic. In the 2010 census, 60,815 people reported themselves as Karelians, of whom the majority – 45,570 people – resided in the Republic of Karelia, which makes up 74.9% of all Karelians living in the Russian Federation. Tver Karelians numbered at 7,394 (see Karjalainen et al. 2013: 20–25). See appendices *B* and *C*.

[2] For details, see *Introduction* and its subchapter *Dialect division of Karelian*.

5) to present the corresponding dialect variants of certain phonetic and morphological phenomena that have been standardised in normative grammars, and maybe even present the possibilities for their unification.

In the Finnic linguistics tradition, the grammar of a language can be analysed on the level of phonetics, phonology, morphology, and syntax. This is also reflected in the descriptive and normative grammars that were used as the primary sources of this study.

Morphology studies the structure of meaningful units (word forms), which allows us to distinguish word inflection and derivation. Of those grammars analysed in this study that detail the inflectional system of Karelian, some describe word formation in conjunction with inflection, while others detail them in individual chapters; from the rest it is missing. Normative grammars focus on the morphological means of word formation. Due to its diversity and considerable variety, word formation in Karelian is not examined in this study. Instead, it would make for a topic for further research.

Compared to the phonetics and morphology of Karelian, its syntax has been studied only little, as evidenced by the linguistic descriptions that serve as the primary sources for this study. For this reason, the syntactic level of Karelian has also been excluded from this study.

This study contains three extensive parts. The **Introduction** serves as a brief glimpse into the formation history of the main dialects, dialects, and standard varieties of the Karelian language. The first part, **Phonetic system of the Karelian language**, describes acoustic phenomena. The second part, **Phonology of Karelian**, analyses the functional laws of the phonological system of Karelian, in particular the phonological variation of consonants and vowels. The inflectional system, including the class of uninflected words, is described in the third chapter, **Morphology of Karelian**. The analysis focusses on the regional distribution of linguistic phenomena in particular, but their formation history is also detailed to an extent to explain dialect differences. The **Grammars and atlas maps** subchapters utilise cluster maps to summarise and compare data on each aspect of grammar in the grammatical descriptions and in *Karjalan kielen murrekartasto* [Dialect atlas of the Karelian language] (1997).

The **Conclusions** chapter presents the conclusions on the grammatical structure of Karelian, its dialects, and standardised varieties as a whole. The **Tables** and **Cluster maps** chapters contain all the tables and cluster maps referenced in the text. The **Dictionary of table lexemes** provides English translations for the some 1,300 Karelian lexemes that appear in the 76 tables of this study. As this publication is intended to serve as a handbook, an **Index** of linguistic terms is also provided. **Appendices** contain a map of the traditional dialect division of Karelian, maps of Karelian inhabitation in the Republic of Karelia and in the Tver oblast (according to the Russian Census of 2010), a screenshot of the audio map of Karelian dialects available at http://karjalankieliopit.krc.karelia.ru, a list of Karelian toponyms with their Russian, Karelian, and Finnish names, and finally, a thematic research bibliography.

The audio map of Karelian dialects that was produced as part of the *Vertaileva karjalan kielioppi* project is freely available on the Karelian Research Centre's website linked above.

We warmly thank the Kone Foundation, whose funding made it possible to carry out this Finnish-Russian joint research project and to publish its results. We also thank our background organisations: the Humanistic Department of the Joensuu Campus of the University of Eastern Finland, and the Institute of Linguistics, Literature and History of the Karelian Research Centre of the Russian Academy of Sciences and its Audio Archive for fruitful cooperation. We give our special thanks to the Tape Archives of the Institute for the Languages of Finland and to the Research Archives of the Karelian Research Center in Petrozavodsk for the opportunity to use their archive materials, and also to the Karjalan Kielen

Kodi in Vedlozero for their hospitality and help in organising our project events. Finally, we would like to thank everyone who took part in our events, acted as our informants, or provided us consultation in Finland and Russia.

Šuuret passipot kaikilla!
Šuuret passibot kaikilla!
Suuret passibot kaikil!
Suuret passibot kaikile!

In Joensuu and Petrozavodsk on the 4th of November 2018

Irina Novak, Martti Penttonen, Aleksi Ruuskanen, Lea Siilin

READER'S AID

For the purposes of systematising, analysing, and comparing the linguistic data located in the grammars[3] that were examined for this study, and also for those of illustration and ease of access, we have gathered the data into tables. The order in which we present the data in the descriptive grammars of Karelian is geographical, running from north to south and west to east. Thus, data concerning Karelian Proper dialects, including the enclave dialects of Inner Russia, are given first; then Livvi-Karelian and Ludic. This serves to illustrate the common features and essential differences between the main dialects as well as dialects of Karelian. Normative grammar data are presented chronologically in the tables. Data from grammars that represent a single standardised variety of Karelian have been placed in the same column, which is titled according to the grammar's abbreviation and the relevant pagination. Table comments contain the main conclusions on the occurrence of a linguistic phenomenon in various dialects and also on the formation history of differences between dialects. Linguistic examples are written in italics. The chapter on morphology also provides examples of certain grammatical categories in context.

The grammars that we examined used various transliteration systems and rules. Bubrih's and Anisimov's common Karelian language grammars and Beljakov's, Anisimov's, Manžin's descriptive grammars are written in the Cyrillic script. Examples provided by them have been transliterated into the Latin alphabet. Other grammars follow various transliteration principles. This concerns both the symbols for single phonemes, length, palatalisation, reduction, etc. and the rules of their use or non-use.

All examples provided are given in a simplified version of the Finno-Ugric transcription system for readability. Diacritics are used as needed in the chapter on phonetics.

The close labial front vowel is marked with *y*, but tables and examples with a reference retain the original orthography (*y* or *ü*). Affricates are marked with the graphemes *c*, *č*, *dž*. Long vowels and geminates are marked with two identical graphemes (*uu*, *yy*, *ii*, *tt*, *kk*, *pp*, *čč*, etc.). Length (half long, extra-short, etc.) is not marked. Such important dialect features as the use of the semi-vowel *w* and instances of assimilation and vocalisation are given in their original source format.

This study marks palatalisation to a significantly lesser extent than its sources. The apostrophe ['] marks the non-positionally determined palatalisation of dentals and alveolars (*d*, *l*, *n*, *r*, *s*, *z*, *t*) either before back vowels and at the absolute word end, or when palatalisation is an important, dialect-distinguishing phonematic feature. This does not apply to chapter 2.3, which details palatalisation and retains the original palatalisation markings used in the source grammars.

The following symbols are used in the phonology and morphology chapter tables that include possible variants of phonemes or affixes: V = vowel, C = consonant, A = *a* or *ä*, O = *o* or *ö*, U = *u* or *y*, T = *t*, *d* or *tt*, S = *s* or *š*, Z = *z* or *ž*, K = *k*, *g* or *kk*, P = *p* or *b*, N = *n* or *nn*. The nasal *ŋ* has been marked in the tables with *n*. Semicolon [:] separates consonant gradation pairs; tilde [~] separates back and front vowel suffix variants; forward slash [/] separates variants between dialects. Hypothetical forms are preceded by an asterisk [*].

Transliteration of the Cyrillic script follows the international ISO 9 standard, with the exception of я = *ja* (not *â*), ю = *ju* (not *û*), and щ = *šč* (not *ŝ*). Fixed given last names

[3] The term *grammar* is used henceforth to cover all grammatical descriptions of the Karelian language.

(Barantsev, Zaitseva, Zaikov) follow the Finnish national standard SFS 4900. The names of Karelian localities are transliterated as in Russian street and road signs, which for the most part conforms to the BGN/PCGN romanisation standard of Russian.

If there is no grammar abbreviation in the text, Karelian Proper examples are given first (from the most common to the rarest); then Livvi-Karelian and Ludic variants. If no variants and dialect references are provided, the cited example occurs in all dialects.

Usage examples of various grammatical forms that contain no dialect differences originate mostly in normative grammars. English translations are given in single quotation marks. Additional explanatory comments are in square brackets. If needed, a word-for-word translation or explanation is given in parenthesis. Locality-based dialect names are usually written in full, with the exception of tables, in which abbreviations are used.

Citations from sources in the Russian or the Estonian language have been translated by the authors of this study.

In-text references include the name of the author or authors and the title of the work and publication year, with the exception of abbreviations, with which the year is not mentioned (e.g. OFUJA). First names and patronymics are given mainly in the *Introduction* chapter; later, mostly last names are used.

This publication is the English edition of our study, which was originally written in Russian and published under the title *Karel'skij jazyk v grammatikah. Sravnitel'noe issledovanie fonetičeskoj i morfologičeskoj sistem* (KNC RAN, 2019) and subsequently published in Finnish[4] and Karelian[5]. Each edition has been tailored to suit their intended audiences, and they differ in their linguistic conventions and terminology accordingly. Any errors in the Russian, Finnish, and Karelian editions noticed by the authors have been corrected in this edition.

Exclusive to this English edition are the included dictionary of table lexemes, which provides basic English translations to the some 1,300 lexemes contained in the dialect comparison tables of this study and which may also be used as a very limited Karelian–English dictionary, and Appendix E. which, when possible, provides the Russian, Karelian, and Finnish equivalents of a total of 204 Karelian locality names.

[4] *Karjala kieliopeissa: fonetiikan ja morfologian vertaileva tutkimus.* Petroskoi : KNC RAN, 2019.

[5] *Karjalan kieli kielioppilois: foneetiekan da morfolougien verdailu*. Karjalan kielen kodi, 2020.

ABBREVIATIONS

Grammatical abbreviations

1sg = 1st person singular
1pl = 1st person plural
2sg = 2nd person singular
2pl = 2nd person plural
3sg = 3rd person singular
3pl = 3rd person plural
abe. = abessive
abl. = ablative
acc. = accusative
ade. = adessive
all. = allative
appr. = approximative
com. = comitative
con. = conditional
egre. = egressive
ela. = elative
ess. = essive
exess. = exessive
gen. = genitive
ill. = illative
imperf. = imperfect
imp. = imperative
ind. = indicative
ine. = inessive
inf1 = 1st infinitive
inf2 = 2nd infinitive
inf3 = 3rd infinitive
ins. = instructive
nom. = nominative
par. = partitive
pot. = potential
pre. = present
prol. = prolative
ptcp1 = 1st participle
ptcp2 = 2nd participle
term. = terminative
tra. = translative

adj. = adjective
adp. = adposition
adv. = adverb
anat. = anatomical
conj. = conjunction
freq. = frequentative
indef. = indefinite
inter. = interrogative
intrans. = intransitive
n. = noun
refl. = reflexive
trans. = transitive
v. = verb

Dialect and subdialect abbreviations

KrP = Karelian Proper
KrV = Viena Karelian
KrS = South Karelian
KrL = Livvi-Karelian
Ld = Ludic
LdC = Central Ludic
LdS = South Ludic
Knd = Kondushi
Kst = Kiestinki
Mkh = Mikhailovskoye
Pdn = Padany
Rbl = Reboly
Shz = Shuyezero
Slm = Salmi
Smz = Syamozero
Srv = Suoyarvi
Tlm = Tulomozero
Vdl = Vidilitsa
Vdn = Vidany

General abbreviations
cf. = compare
e.g. = for example
et al. = and others
etc. = et cetera
i.e. = that is
n.d. = no date
sb = somebody
sic = thus had it been written
smth = something
smwh = somewhere

INTRODUCTION

History of Karelian dialects

The formation of the main dialects, dialects, and subdialects[6] of Modern Karelian has been quite a lengthy process, having involved the interinfluence of Old Karelian, Old Veps, and Saami, and also the influence of Russian and Finnish that has continued for centuries.

The main dialects of Modern Karelian are descendants of Old Karelian. By the 9th century, the Baltic Finns inhabiting the shores of the Gulf of Finland, Lake Ladoga, and Lake Onega had begun to form distinct tribes based on differences in their language, living habits, and their relations with other peoples (Kirkinen 1994: 20). According to Terho Itkonen, Old Karelian was formed toward the end of the first millennium after the separation of the Eastern and Northern Proto-Finnic dialects of Late Proto-Finnic (Itkonen 1983: 349–353; see also Leskinen 1998: 353–354). They diverged c. 800–950 CE, which led to the formation of Old Karelian and Old Veps. Old Karelian was formed on the northern and northwestern shores of Lake Ladoga, while Veps was born on its southern and southeastern shores, which was outside the reach of strong Tavastian influence (Sammallahti 1977: 133). According to contemporary research, the eastern group of Late Proto-Finnic was based on a language variety named the Ladogan protolanguage, which was spoken by the indigenous people of the Karelian tribe on the southern and southwestern shores of Ladoga by the 8th century at the latest. The current understanding is that Old Karelian was formed from both western and eastern dialect elements of Late Proto-Finnic. (Sammallahti 1977: 127–134; Lehtinen 2007: 163–164.)

The 1100s and early 1200s were the heyday of Old Karelian culture. Busy trade relations were formed, cultural exchange took place, and neighbouring peoples got in contact with each other. This led to Karelians' spreading into different directions: into the areas that are now Finnish North Karelia, the Mikkeli region, and North Ostrobothnia; later on even into the Olonets Isthmus and the shores of the White Sea (see Bubrih 1947a; Karely 1983: 17; Kirkinen 1994: 17–20, 30, 33). Having spread so widely, the Old Karelian language obviously could not remain unified for long. Hence, c. 1000–1100 CE, Proto-Ingrian was formed as a result of the language contact between the ancient Karelian inhabitants of the southwestern parts of the region with Old Votic and Old Estonian (see Kettunen 1940: 134; Nirvi 1961: 99–106; Uino 1991; Leskinen 1998: 356).

From the 12th century onwards, the northwestern area of Lake Ladoga became a stage for armed conflicts between the Russians and Swedes. Document analysis has led Aleksej Stepanovič Žerbin to conclude that the systematic migration of Karelians from the Priozersk district area into the Olonets Isthmus, which was inhabited by ancient Vepsians, and into the living grounds of the Sámi people in what is now Russian Karelia, began as early as in the 13th century; however, this was not yet mass migration (Žerbin 1956: 38). The treaty of Nöteborg, signed in 1323, defined the first known border between Sweden and Novgorod from Sestroretsk to the Gulf of Bothnia. As per the treaty's conditions, Sweden received Vyborg and Savolax (the so-called Greater Savonia), Äyräpää, and Jääski. Other regions of Karelia belonged to the Novgorodian Karelia (see e.g. Kočkurkina 1987: 16–65). These borders divided the lands

[6] The hierarchy of a *main dialect* with its *dialects* and their *subdialects* used in this study correspond to the Russian terms *наречие* (*narečie*), *диалект* (*dialekt*), and *говор (govor*), respectively, each of which is the supercategory of the next. For further details see p. 18 *Dialect division of Karelian.*

of the Karelian tribe — an ethnic whole — into three parts: Novgorodian Karelia (Priozersk district), Swedish or Vyborgian Karelia (Vyborg area, Äyräpää, and Jääski), and Savonia (Mikkeli area) (see Leskinen 1963: 14–15). In the regions of the latter two, the Eastern Finnish dialects were ultimately formed: the Southeastern dialects, which were heavily influenced by Western dialects, and Savonian dialects, which had originally developed without exposure to outside influence but in time were subjected to that of the Southeastern and Tavastian dialects of Finnish (see Leskinen 1976). The language spoken in the Priozersk district area served as a basis for the contemporary main dialects of Karelian. Continuous contact with Novgorod required a knowledge of Russian, and the migration of Russian-speaking population could not but affect the phonetic system and vocabulary of Old Karelian (see Tunkelo 1938: 21; Leskinen 1998: 357).

The wars fought between Russia and Sweden during the 16th and 18th centuries had a decisive impact on the formation of the contemporary main dialects and dialects of Karelian. The new border between Russia and Sweden, as defined in the Treaty of Teusina, ran from Lake Peipus to Varangerfjord in the Arctic Ocean; Russia lost its Gulf of Bothnia territories. In 1617, as per the conditions of the Treaty of Stolbovo, Sweden received the Priozersk district[7], which led to Karelians' migrating en masse from their historical homelands. A new war in 1656–1658 resulted in the vastest wave of systematic Karelian mass migration. (Virtaranta 1961: 32–36; Virtaranta 1980: 94–98; Saloheimo 2010.)

Karelians migrated from the Priozersk district into the pogosts of Lapland along the shore of the White Sea. A considerable stream of refugees headed south into the territories in Inner Russia which had been depopulated by the Polish–Muscovite War (the present-day Tver, Novgorod, Leningrad, Moscow, Kaluga, Vladimir, Smolensk, and Yaroslavl oblasts) (see Žerbin 1956: 4–75). Immigrants were welcomed by monasteries in particular, e.g. the Tikhvin, Valday Iversky, and Alexander-Svirsky monasteries, in which the corresponding groups of Tikhvin, Valday, and Kondushi Karelians were eventually formed. A significant number of Karelians moved to the Bezhetsky Verkh, leading to the formation of Tver Karelians (Virtaranta 1961: 34).

According to historians, the majority of Karelian immigrants arrived from the northern areas of the Priozersk district (the Finnish North Karelia). Meanwhile, to a degree, Border Karelia managed retain its Karelian population and therefore also the Karelian language (Leskinen 1998: 359).

Following the Great Northern War of 1700–1721, Russia gained access to the Baltic Sea and its previously lost territories. As a result, Karelians who had remained in the Priozersk district had the opportunity to reconnect with their families. (See Karely 1983: 38–62.) During the 18th century, Karelians on the shore of the Gulf of Bothnia also resettled into what is now the Kalevalsky district in the Republic of Karelia. Their language has been significantly influenced by Western Finnish dialects since the 14th century (see Bubrih 1971: 19–20).

Thus was formed one of the main dialects of the contemporary Karelian language: Karelian Proper, generally seen as the direct successor of the language of Novgorod Karelia (Priozersk Karelia). The northern dialects of Karelian Proper, known as Viena Karelian[8], show a strong influence of Finnish, whereas the southern dialects (called South Karelian), spoken in the Republic of Karelia, in the former Finnish Border Karelia, and in Inner Russia, remained relatively unchanged well into the middle of the 20th century. One should, however, note the influence of Livvi-Karelian on the South Karelian dialects of the Republic of Karelia and Border Karelia (Leskinen 1998: 357).

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[7] The Priozersk district used to encompass the present-day Finnish North Karelia, Border Karelia, eastern parts of the Karelian isthmus, and Ladoga Karelia, which includes the Sortavala region and Lake Ladoga's northwestern shores.

[8] Also "White Sea Karelian" in English and known as "North Karelian" in the Russian linguistic tradition.

Some Karelians migrated from their historical homelands also to the Olonets Isthmus, where the long-standing contacts between Karelians and Vepsians led into the final formation of Livvi-Karelian and Ludic. Bubrih states that ”from the linguistic point of view, the connection between not only Ludic-speaking but also Livvi-speaking Karelians and the ancient ves' tribe (Vepsians) is entirely obvious” (Bubrih 1947a). According to Virtaranta, the region of the present-day Olonets dialects and in part also the region of South Karelian dialects had at some point in time been populated by the low-numbered speakers of the subdialects of Ludic and Vepsian, with whom Karelian migrants mixed[9]. Furthermore, Virtaranta sees the Ludic subdialects and the Veps language as having descended from a common protolanguage. (Virtaranta 1972: 26–27.)

The indigenous Vepsian population obviously left its mark on the language of the settlers. T. Itkonen finds that Karelian came to be the dominant component in the formation of Livvi-Karelian, with Veps being the receding language and serving as the substratum. In contrast, some researchers consider Ludic to be a group of transitional dialects, having formed as Old Karelian as Old Veps mixed (see Itkonen 1971: 179, 182).

It was rather common for Karelian families to have sought to improve their living conditions by migrating from one place to another, sometimes even over considerable distances. Records exist of migration from the Ladvozero village in Viena Karelia into Tver Karelia in the 17th century, and families from Central Karelia (e.g. from the village of Sel'gi) resettled there as well (see Virtaranta 1961: 42–44). In addition, the rapid development of the Olonetsky uyezd during the 17th and 18th centuries incentivised Karelians to relocate to the Olonets Isthmus, which ”together with the migration from Priozersk caused dialect borders to shift and evened out linguistic differences between the local Karelian groups” (PFNR 2003: 177). Therefore, it can be said that the Karelian dialects had not been formed in full until the beginning of the 19th century.

Currently, Karelian is categorised in the 2016 UNESCO Atlas of the World's Languages in Danger[10] (formerly ”The Red Book” 1993–) as one of the ”definitely endangered” languages. The international ELDIA project showed that Karelian is at a very alarming state of endangerment in Finland (Sarhimaa 2013: 23) and severely endangered in Russia (Karjalainen et al. 2013: 189)[11]. The current state of affairs can be directly attributed to the historical events of the 20th century.

The birth of the Grand Duchy of Finland, and later that of the independent Finland, resulted in the Karelians' who had remained in the regions of Northwest Ladoga being assimilated by the Finnish population that arrived from the west. According to the numbers from 1938, approximately 45% of the population of Border Karelia were Karelians (see Punttila 1992: 5–7). However, due to the speakers' respective religions, both Finnish and Karelian were retained reasonably well on the border zone (Nirvi 1932: 11). After World War II, the Ladoga territory was conceded to the USSR and Karelians were evacuated into Inner Finland, where they were resettled based on their original places of living. The main relocation zones for the Karelian-speaking population were the Oulu region, Northern Savonia, and Finnish Northern Karelia. Their relocation to Inner Finland increased the Karelians' rate of assimilation into the Finnish society and also that of their adoption of the Finnish language. (See e.g. Hämynen 1998; Sarhimaa 2017: 20–24.)

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[9] ”– in dem Gebiet der heutigen olonetzischen Dialekte, teils auch in dem Südkarelischen, eine dünnere lüdisch-wepsische Grundbesiedlung gegeben hat, mit der sich Karelier vermischt haben.” (Virtaranta 1972: 27).

[10] Interactive map available at: http://www.unesco.org/new/en/culture/themes/endangered-languages/atlas-of-languages-in-danger/

[11] Ludic is labelled as severely endangered in the UNESCO Atlas; according to Pahomov (2017: 41), it is the most endangered of all autochtonic languages in the Republic of Karelia.

During the course of the 20th century, the influence of Russian on the Karelian dialects in the Republic of Karelia markedly increased. The aftermath of World War II, migration into the Republic of Karelia, Karelian migration into towns and cities in search of work, and the dissolution of villages in the countryside led to a rapid decrease in the numbers of Karelians in the Republic of Karelia — their numbers decreased from 108,600 in 1939 to 45,600 in 2010 — and an increase of the rate of assimilation (PFNR 2003: 181–184). Many of the villages in Central and Northern Republic of Karelia were Russified, and it is now likely to be impossible to find any speakers for some of the dialects. The situation is even more dire in the Karelian regions of Inner Russia. The number of Tver Karelians has plummeted from 140,600 in 1926 to 7,400 in 2010 (Itogi). The approximated number of Tikhvin Karelians is around 450 (Kuz'min 2008: 192). The Valday and Dyorzha dialects have become extinct.

Dialect division of Karelian

The terminology used in this publication concerning the names of the various Karelian lects is informed by Finnish linguistics, with some exceptions that are based on the Russian research tradition. Karelian lects are divided into main dialects (such as Karelian Proper), dialects (the Rypushkalitsy dialect), and smaller local subdialects (the dialect of a village or an obshchina)[12] (see LÈS). The Karelian language is divided into three main dialects: Karelian Proper, Livvi-Karelian, and Ludic. It is to be stressed that the purpose of this study is not to present a classification of Karelian dialects. For this reason, the following classification is used which combines the Finnish and Russian traditions of Finnic linguistics (See Appendix A for a map).

Karelian Proper					**Livvi-Karelian***	**Ludic**
Viena Karelian dialects		South Karelian dialects				
North Karelian dialects	Transitional dialects	Central Karelian dialects	Border Karelian dialects	Inner Russian dialects (enclave dialects)		
Voknavolok	*Panozero*	*Maslozero*	*Ilomantsi*	*Valday*	*Vedlozero*	*North Ludic (Kondopoga)*
Vychetaybola	*Poduzhemye*	*Myandusel'ga*	*Korpisel'kya*	*Ves'yegonsk*	*Vidlitsa*	*Central Ludic (Munozero)*
Keret	*Yushkozero*	*Padany*	*Suystamo*	*Dyorzha*	*Impilakhti*	*South Ludic (Svyatozero)*
Kestenga		*Porosozero*	*Suoyarvi*	*Tikhvin*	*Kondushi*	*Mikhailovskoye*
Kontokki		*Reboly*		*Tolmachi*	*Kotkozero*	
Olanga		*Rugozero*			*Nekkulitsy*	
Suomussalmi		*Tunguda*			*Rypushkalitsy*	
Tikhtozero		*Shuyezero*			*Salmi*	
Ukhta					*Syamozero*	
					Tulomozero	

* For more details on the Salmi and Impilakhti dialects of Border Karelia see page 20.

[12] A *main dialect* is the largest unit in dialect division; a body of dialects connected by common distinguishing features. A *dialect* is a form of language used as a means of communication by the people of a specific region. A dialect always manifests in opposition to other dialects, to which it is connected by a host of common linguistic features. Regional dialects differ in their phonology, grammar, word-formation, and vocabulary. A *subdialect* is the smallest regional unit of a language that is used as a means of communication by one or more neighbouring population centres, usually villages. There are no regional differences within subdialects. It is a functional linguistic system that differs from the systems of other subdialects due to its native phonetic, grammatical, word-formational, and lexical features. (LÈS).

The division of Karelian main dialects is based on a governmental one; the borders of Karelian dialects, for the most part, correspond to the volost division of the first half of the 20th century. According to Georgi Martynovič Kert and Vladimir Dmietrievič Rjagoev's introduction in *Karjalan kielen murrekartasto* [Dialect atlas of the Karelian language], "life inside the volost and congregational borders of that time was economically, religiously, and spiritually closed, which has also been reflected in the language" (Kert, Rjagoev 1997: 4, 8). This view is justified, although, on the one hand, it is not always possible to find significant differences between neighbouring dialects, e.g. in the case of Karelian Proper Viena Karelian dialects. On the other hand, it is fairly common to find significant phonetic and morphological differences between individual subdialects of the same dialect, and yet they have been classified as a single dialect, e.g. the Karelian Proper Padany subdialects.

Dialect borders do not always correspond to volost borders, as subdialects are located on the borders of dialects and they contain features from both neighbouring dialects. In his article *Die Dialekte des Karelischen* [the dialects of Karelian], Virtaranta gives the Miinoa village subdialect as an example. It is located in the former volost of Rugozero but still bears a closer resemblance to the dialect of Kontokki than to that of Rugozero. The same applies to the southern subdialects of Suojärvi, which are closer to Livvi-Karelian than to the Karelian Proper South Karelian dialects (see Virtaranta 1972: 10). The analysis of some of the subdialects of Ludic has shown that the Kashkana village subdialect, classified as belonging to the Mikhailovskoye dialect based on its location, differs from it greatly, whereas there are basically no differences between it and the neighbouring dialects of South Ludic (see Wiik 2004: 30–31). In this study, referencing the dialect atlas of the Karelian language makes it possible, for the most part, to define precisely the subdialects that are characterised by specific phonetic and morphological features.

The Karelian dialect division used in this study must only be seen as reflecting that of the first half of the 20th century — before World War II —, when the region inhabited by the Karelian population was still relatively linguistically homogenous and the borders between the main dialects and dialects were rather clear. In the present day, due to historical and political reasons, some Karelian dialects have become extinct whereas the borders between others have become markedly more obscure, and thus warrant clarification.

The area in which the **Karelian Proper** main dialect has been spoken in the past is quite sizeable. It includes the volosts of Loukhi, Kalevala, Kemi, Belomorsk, Segezha, Muyezerskiy, Medvezhyegorsk, and Suoyarvi; the area of the city of Kostomuksha in the present-day Republic of Karelia; Kandalakshsky district in the Murmansk area; Tikhvinsky and Boksitogorsky districts in the Leningrad area; Valdaysky district in the Novgorod area, and the Likhoslavlsky, Spirovsky, Maksatikhinsky, Rameshky, Bezhetsky, Molokovsky, Vesyegonsky, Sandovsky, and Zubtsovsky districts in the Tver oblast (see Appendices 1 and 2).

Karelian Proper is divided into the Viena Karelian and South Karelian dialect groups. The latter contains the enclave group comprising the Valday and Tikhvin dialects of the former Novgorod governorate and the dialects spoken in the Tver oblast (Tver Karelian). Enclave dialects are mainly based on the dialects that were spoken in the Priozersk region, from whence Karelians moved to Inner Russia in the 17th century. Unlike Russian researchers, Finnish linguists classify the Keret and Suomussalmi[13] dialects as dialects of Viena Karelian (see KKS IV: 6; Zaikov 2000: 27, ALFE I: 81). The Russian research tradition distinguishes a group of transitional dialects between Viena and South Karelian (Yushkozero, Panozero, Poduzhemye), all of which Finnish researchers consider to be dialects of Viena Karelian. Maps

[13] The Suomussalmi dialect of Viena Karelian could still be heard in the middle of the 20th century in the villages of Hietajärvi, Kuivajärvi, and Rimmi and in their neighbouring regions.

drawn by Finnish researchers depict the dialects of the former Finnish Border Karelia — the Ilomantsi, Korpisel'kya, Suystamo, and Suoyarvi dialects[14] — as belonging to the South Karelian dialect group.

The enclave dialect division, too, is based on the governmental division of the early 1900s. Hence, the Karelian subdialects spoken in the uyezds of Valday, Tihkvin, and Ves'yegonsk have been named respectively. Later on, the Karelian subdialects spoken in the population centres of Vyshny Volochok, Novotorzhok, and Bezhetsk uyezds, which largely belonged to the Karelian National Okrug, served as a basis for the Tolmachi dialect. Until recent times, in the Zubtsov uyezd area (later Zubtsovsky district) one has been able to encounter speakers of the Dyorzha (Zubtsov) dialect in some villages on the shore of the River Dyorzha. As the enclave dialects have for centuries been developing in a Russian-speaking environment, they have not been influenced as much by the other Finnic languages, which sets them apart from the main dialects and other dialects of Karelian.

One of the contemporary standard varieties of Karelian that are being developed is based on the Viena Karelian dialects. In this study it is simply called *standard Viena Karelian*, shorthand for "the standard Viena Karelian variety of the Karelian language". The 1930s saw a brief period of an early standard variety of Karelian being developed based on the Tver Karelian Tolmachi dialect (Bubrih 1937: 4). In the 1990s, the standardisation of Tver Karelian began once more and continues to this day. Meanwhile, a new standard variety of Karelian, based on South Karelian dialects, is being developed in Finland. Its authors call it *Karelian Proper* (Karjala 2018); however, the term has traditionally been used to refer to both Viena and South Karelian as a whole.

Livvi-Karelian (Olonets Karelian, Olonetsian, or Olonets; endonym *liygi*) presently has the highest number of speakers of all the main dialects of Karelian. It is spoken by Karelians living in the Olonetsky and Pryazhinsky districts of the present-day Republic of Karelia. In the first half of the 20th century, Livvi-Karelian had also spread into the eastern and southeastern parts of the present-day Pitkyarantsky and Suoyarvsky districts, respectively, in southeastern Border Karelia. For this reason, Finnish researchers consider the dialects of Salmi and Impilakhti — with the exception of Ruokoyarvi and Syuskyuyarvi —, and the southeastern dialects of Suystamo and Suoyarvi (the so-called "Hyrsylän mutka" ["Hyursyulya bend"] of the former Finnish Border Karelia to be dialects of Livvi-Karelian (see Turunen 1982: 75). Meanwhile, in keeping with the volost division, they divide the Syamozero dialect into Syamozero and Munozero dialects. The Kondushi dialect group in the Lodeynopolsky district in the Leningrad oblast also belongs to Livvi-Karelian as an enclave. Until World War II, the Kondushi selsoviet or rural council consisted of twenty villages; however, during the war, a large number of houses and farms were destroyed and the population was evacuated. Only one sixth of the population of Lodeynoye Pole remained after the war, which inevitably affected the Kondushi dialect. (Virtaranta 1973: 259–263.) One of the contemporary standard varieties of Karelian that are being developed is based on the Livvi-Karelian dialects. In this study it is simply called *standard Livvi-Karelian*, shorthand for "the standard Livvi-Karelian variety of the Karelian language".

Concerning the status of the **Ludic dialects** (*Ludian*, *Lude;* endonym *lüüdikiel'*), several views have been and still are being presented within the context of Finnic linguistics. Early on, it was suggested that they ought to be regarded as part of the Veps language, but this view failed to gather later support (Genetz 1872: 3–6). At present, two views exist both in Finland and Russia. One sees the Ludic dialects as belonging to the Karelian language. This view is rooted in the studies of D.V. Bubrih (see Bubrih 1947a, 1948; Zaikov 2000; Rodionova et al.

[14] Before World War II, Finland possessed the territory of Border Karelia, which consisted of Salmi hundred (Salmi, Soanlahti, Suistamo, Suojärvi, Impilahti, and Korpiselkä municipalities). Karelian was also spoken in eastern Ilomantsi. (Uusitupa et al. 2017: 68, cf. Turunen 1982: 65.)

2017: 9–11), and at present it is the dominant view in Russia. The other view considers Ludic to be an independent Finnic language. This view, dominant in Finland, originates in P. Virtaranta (see Virtaranta 1972), and it appears to be rooted in studies that find the Ludic dialects to be transitional dialects between Karelian and Veps (e.g. Kujola 1910; Turunen 1946: 24; Itkonen 1971: 181). In Finland, a view has recently been put forth by M. Pahomov that the Ludic subdialects "have descended from the protolanguage of Early Ludic" and "meet the criteria set for an independent language, as a system which is distinct from its surroundings can be identified in them". (Pahomov 2017: 9, see also 33, 108, 285.)[15]

The speaking area of the Ludic main dialect is a rather narrow strip running from north to south, approximately 220 kilometres from Lake Onega (from Paloselga to Mikhailovskoye) (present-day Pryazhinsky, Kondopozhsky, and Olonetsky districts in the Republic of Karelia). Finnish researchers of Ludic divide it into Hirvas (Girvas), Koikari (Koykari), Haljärvi (Gallezero), Pyhäjärvi (Svyatozero), Latva (Ladva), and Kuujärvi (Mikhailovskoye) dialects (see KKS IV: 6; ALFE I: 81; Rodionova et al. 20127: 9–11)[16]. In comparison with the classification introduced earlier, Girvas is North Ludic, Koykari and Gallezero represent Central Ludic, whereas Svyatozero and Ladva are South Ludic (see also Pahomov 2017: 161–162). These classifications differ mainly in their terminology and the size of the dialect area, whereas the borders are mostly the same.

There is no accurate number of Ludic speakers. Aimo Turunen estimated their numbers to be slightly over 10,000 in the beginning of the 20th century. According to A.P. Barantsev, their numbers had diminished to 6,000–7,000 speakers by the 1960s. M. Pahomov estimates a maximum of 300 Ludic speakers (see Pahomov 2017: 8). Standard Ludic is being developed based on the Mikhailovskoye dialect (Pahomov 2017: 43).

In this section, the main differences between Karelian dialects at the grammatical level are presented as a background for the analysis in this study.

In Karelian dialectology, the following have generally been regarded as the most important phonetic features that differentiate the three main dialects of Karelian from one another:

– the representation of nominal stems ending in *-a, -ä* (excluding disyllabic nominals with a short first syllable) and the partitive and essive endings, e.g. **Karelian Proper:** *adra* 'plough', *päivä* 'day', *akka* 'wife, old woman', *akkana (*ess. sg. of *akka*), *ikkuna* 'window'; **Livvi-Karelian:** *adru, päivy, akku, akannu, ikkun*; **Ludic:** *adr / adre, päiv / päive, akk / akke, akkan / akkannu, ikkun* (see Virtaranta 1972: 19–21; Atlas: maps 27–30, 116, 119);

– the representation of translative endings: **Karelian Proper:** *-kši*, *-ksi* (*miukši / miuksi – mie* 'I' tra. sg); **Livvi-Karelian:** *-kse* (*minukse*); **Ludic:** *-ks* (*minuks*) (Beljakov 1958: 58; atlas map 120);

– the representation of 1pl and 2pl endings in verb conjugation: **Karelian Proper:** *-mma* / *-mmä*, *-tta* / *-ttä* (*myö niämmä* 'we see'); **Livvi-Karelian:** *-mmo* / *-mmö*, *-tto* / *-ttö* (*myö näimmö*); **Ludic:** *-mme* / *-mm*, *-tte* / *-tt* (*myö nägemme* / *nägemm*) (atlas map 140);

– the representation of the first vowel in the imperative form of the negative auxiliary verb: **Karelian Proper:** *elä*, *elkyä* / *elkeä* / *elgyä* / *elgeä* / *elgiä*, *elkäh* / *elgäh*; **Livvi-Karelian, Ludic:** *älä*, *älgiä* / *älgeä*, *älgäh*, *älgäheze* (atlas map 163);

– The occurrence or loss of a diphthong ending in *i* in front of *sk*, *šk*, *st*, *št*, e.g. **Karelian Proper:** *laiska* 'lazy', *muista-* stem of 'to remember'; **Livvi-Karelian, Ludic:** *lašku*, *musta-* / *mušta-* (see Virtaranta 1972: 21; atlas map 36);

[15] See Palander 2001:40.

[16] See Pahomov 2017: 159–167 for further information on the dialect division of Ludic.

– the presence or absence of a diphthong or a triphthong ending in *i*, e.g. **Karelian Proper:** *repo* / *rebo* 'fox'; **Livvi-Karelian:** *reboi*; **Ludic:** *reboi* / *rebuoi* > *rebuo* (see Atlas: map 41). The same applies to imperf. ind. 3sg forms, e.g. **Karelian Proper:** *šano* / *sano* 'said'; **Livvi-Karelian:** *sanoi*; **Ludic:** *sanoi* / *sanuoi* / *sanui* / *sanuo* (Atlas: map 143);

– such features of consonant gradation as the lack of plosive gradation in the third and further syllables, and, in Livvi-Karelian, in a voiceless position; the lack of qualitative gradation in Ludic and the quantitative gradation of *ss* : *s*, *šš* : *š*, *hh* : *h* and the weak grade becoming more common in quantitative gradation in front of diphthongs ending in *i* in Livvi-Karelian and Ludic, e.g. **Karelian Proper:** *akka* : *akat* / *akad* 'a wife : wives', *pelto* / *peldo* : *pellot* / *pellod* 'a field : fields', *emäntä* / *emändä* : *emännät* / *emännäd* 'a matron : matrons', *petkelet* / *petkeled* : *petel* 'pestles : a pestle', *kukko* 'a rooster'; **Livvi-Karelian:** *akku* / *akat*, *kassu* : *kasat* 'a braid : braids', *peldo* / *pellot*, *emändy* : *emändät*, *petkelet* : *petkel*, *kukoi*; **Ludic**: *akk* / *akke* : *akat* / *akad*, *kass* / *kasse* : *kasat*, *peldo* / *peld* : *peldot* / *peldod*, *emänd* / *emände* : *emändät* / *emändäd*, *petkelet* / *petkeled* : *petkel*, *kukoi* / *kukuoi* > *kukuo* (see Turunen 1946: 25; Virtaranta 1972: 14–18; Atlas: maps 58–68; Novak 2014: 67–129). Several peculiarities of the Ludic main dialect are due to the distinct features of its consonant gradation system.

The following have been regarded as the most important morphological features that differentiate the three main dialects of Karelian:

– characteristics of the case system that have to do with the merging of adessive and allative in Karelian Proper (*-lla* / *-llä*, *-la* / *-lä*); the merging of inessive and elative in Livvi-Karelian and Ludic (*-s*); the merging of adessive, ablative, and allative in Livvi-Karelian (*-l*); and the merging of adessive and ablative in Ludic (*-l*). For example, **Karelian Proper:** *mečäššä* / *mečässä* (ine. sg of *meččä* 'a forest'), *mečäštä* / *mečästä* (ela. sg), *veičellä* (ade.-all. sg of *veičči* 'a knife'), *veičeltä* / *veičeldä* (abl. sg); **Livvi-Karelian, Ludic:** *mečäs* (ine.-ela. sg); **Livvi-Karelian:** *veičel* (ade.-abl.-all. sg); **Ludic:** *veičel* (ade.-abl. sg), *veičele* (all. sg) (see Virtaranta 1972: 21–22; Atlas: maps 121, 123). In addition, Livvi-Karelian and Ludic have developed postpositional elative (*-späi*, *-spiäi*) and ablative (*-lpäi*, *-lpiäi*) cases, which helps to avoid case syncretism so that grammatical forms with different functions do not overlap (Leskinen 1998: 381; Zaikov 2000: 23);

– the extensive use of the late-formed postpositional elative (*-späi*, *-spiäi*), ablative (*-lpäi*, *-lpiäi*), terminative (*-ssah* / *-ssäh*, *-ssuai*), and approximative (-lluo / -llyö) cases in Livvi-Karelian and Ludic is a Vepsian influence. For example, **Livvi-Karelian:** *kyläspäi* 'from village', *l'evolpäi* 'from roof', *pihassah* 'to yard (and not any further), *mučoilluo* 'to wife'; **Ludic:** *ruadospäi* 'from work', *niitylpäi* 'from meadow', *poigalloh* 'to one's son' (see Kovaleva & Rodionova 2011: 79–90);

– personal pronoun forms, e.g. **Karelian Proper:** *miun* (*mie* 'I' gen. sg), *hiän* / *heän* / *heen* 'he/she'; **Livvi-Karelian, Ludic:** *minun* (*minä* 'I' gen. sg), *häin* / *häi* / *hän* (see Atlas: maps 125–131);

– particular 1pl and 2pl endings in the imperfect (*-ma, -mä* and *-ja, -jä*, respectively) in Karelian Proper, whereas in Livvi-Karelian and Ludic tenses are formed with a single set of personal endings. For example, **Karelian Proper:** *šanoja* / *sanoja* 'you said (2pl)'; **Livvi-Karelian:** *sanoitto*; **Ludic**: *sanoitte* / *sanuitte* / *sanuitt* (see Zaikov 2000: 60–80, Atlas: maps 144–146);

– particular active 2nd participle suffixes, used to form negations and compound tenses (*-Cut*[17] / *-Cyt*, *-Cun* / *-Cyn*, *-n* in Karelian Proper, *-Cuh* / *-Cyh* in Livvi-Karelian and *-Cu* / *-Cy* in Ludic), e.g. **Karelian Proper:** *en lukenun* / *en lugenun* / *en lugennun* / *en lugenut* / *en lugen* 'I did not read'; **Livvi-Karelian:** *en lugenuh* / *en lugenut*; **Ludic:** *en lugenu* (Atlas: maps 161–162; Leskinen 1998: 381);

[17] *C* corresponds to any consonant, the choice of which in this case depends on the verb's conjugation type.

– the use of four tenses in the conditional mood in Livvi-Karelian and Ludic, whereas only two tenses are used in Karelian Proper dialects (see Zaikov 2000: 220–246; Atlas: map 155);

– distinct 3sg and plural imperative endings in Livvi-Karelian, whereas in the other two main dialects they have merged, e.g. **Livvi-Karelian:** *kaččokkah* 'let him/her look', *kačottaheze* 'let them look'; **Karelian Proper:** *kaččokkah* 'let him/her/them look' (see Zaikov 2000: 208–220);

– features in the formation of reflexive verbs, e.g. **Karelian Proper:** *kumartavun* / *kumardavun* / *kumarduaten* / *kumarduačen* 'I bow'; **Livvi-Karelian, Ludic:** *kumardamos* / *kumardammos*; **Ludic:** *kumarzun* / *kumardun* (see Atlas: maps 164–172);

– the occurrence of incoative verb forms in Ludic, e.g. *pajataškan* 'I begin to sing' (Turunen 1946: 25; Atlas: map 173).

Kalevi Wiik's quantitative study on Karelian dialects, in which the number of features that differentiate certain dialects and subdialects was counted using data from *Karjalan kielen murrekartasto* [Dialect atlas of the Karelian language] (1997), showed that the difference between Karelian Proper and Ludic varies from 63% to 89%, between Karelian Proper and Livvi-Karelian from 50% to 80%, and between Ludic and Livvi-Karelian from 38% to 70% (54% on average) (Wiik 2004: 63–64, 67). However, the atlas contains only those phonetic and morphological phenomena and lexemes that show variation between the main dialects and dialects. Therefore, studying all the data contained in the booklets that were filled as part of the data gathering programme for the atlas in similar fashion could yield completely different results and lower percentages.

Distinct features that vary between and inside the Karelian main dialects are due to the influence of neighbouring languages and main dialects of Karelian. There is no doubt, for instance, that the grammatical structure and vocabulary of the Viena Karelian dialect of Karelian Proper and even the western dialects of South Karelian have been influenced at a late stage by Finnish. Differences inside the Padany and Myandusel'gya dialects of Karelian Proper can be explained by their being located on the border of the main dialects of Karelian; they contain features from Livvi-Karelian and Ludic. Phonetic and morphological comparison of the Ludic dialects shows that the differences between them are mainly caused by the influence of the neighbouring main dialects and the Veps language. South Ludic has been influenced by Livvi-Karelian, the northern dialects of Ludic by Karelian Proper, and the Mikhailovskoye dialect by Veps.

Research on Karelian

The first researchers to start gathering data from the regions inhabited by Karelians were, in the first half of the 19th century, Finnish folklorists Anders Johan Sjögren, David Emmanuel Daniel (Taneli) Europaeus, Axel August Borenius, Elias Lönnrot, and Matthias Alexander Castrén. Arvid Genetz[18] (1848–1915) has traditionally been regarded as the founder of the study of the Karelian language. He published three grammatical descriptions that contain analyses of the phonologies, inflectional systems, and word formation systems of the three essential main dialects of Karelian: ***Wepsän Pohjoiset Etujoukot***[19] [The northern vanguard of Veps] (1872), ***Tutkimus Venäjän Karjalan Kielestä*** [A study on the Karelian language of Russia] (1880), ***Tutkimus Aunuksen kielestä*** [A study on the language of Olonets] (1885) and ***Kertomus Suojärven pitäjäästä ja matkustuksistani siellä v. 1867*** [A report on the municipality of Suojärvi and my travels there in 1867] (1870). By describing in his studies a

[18] For a personal history see KKS I: VIII–XV.

[19] The 21 grammars that comprise the research material of this study are in boldface.

significant portion of the dialects of Karelian Proper, Livvi-Karelian, and Ludic, he effectively divided Karelian into three main dialects, although he instead classified Ludic as a northern dialect of the Veps language.

In the 20th century, Finnish researchers continued their intensive work of gathering dialect data and studying the Karelian language during the Neogrammarian period. Heikki Ojansuu's *Karjalan äänneoppi* [Phonology of Karelian], published in 1905, contained a comparative analysis of the distinct phonological features of the main dialects of Karelian. This work served as a basis for his study on the historical phonology of Karelian, called *Karjala-aunuksen äännehistoria* [A phonological history of Karelian-Olonets] and published in 1918.

Alongside these in-depth studies, phonetical descriptions of some Karelian dialects and subdialects were written, such as Jooseppi Mustakallio's *Vuokkiniemen Akonlahden kylän ynnä sitä ympäröivien kylien kielimurteesta* [On the dialect of the Bab'ya Guba village of Voknavolok and its surrounding villages] (1883), Juho Kujola's *Ääneopillinen tutkimus Salmin murteesta* [A phonological study of the Salmi dialect] (1910), Tahvo Liljeblad's *Tunkuan murteen konsonantismi* [The consonant system of Tunguda] (1931), Ruben Erik Nirvi's *Suistamon keskusmurteen vokalismi* [The vowel system of the central Suistamo dialect] (1932), and Eino Leskinen's *Tulemajärven murteen vokalismi* [The vowel system of the Tulomozero dialect] (1933). Kujola wrote a dictionary of Ludic dialects titled *Lyydiläismurteiden sanakirja* (1944) [Dictionary of Ludic dialects].

After World War II, Finnish linguists resumed the study of Karelian. Aimo Turunen examines the formation of vowels and consonants in Ludic dialects in his two-part study *Lyydiläismurteiden äännehistoria I, II* [A phonological history of Ludic dialects] (1946, 1950). In ***Haljärven lyydiläismurteiden muoto-oppia*** [Some morphology of the Ludic Gallezero dialects] (1986), Pertti Virtaranta[20] (1918–1997) described the morphological system of the Ludic Gallezero subdialect based on recordings of the Ludic informant Stefan Huotarinen from the village of Gallezero.

In 1971, Terho Itkonen examined the formation of the Livvi-Karelian main dialect in his extensive article *Aunuksen äänneopin erikoispiirteet ja aunukselaismurteiden synty* [Phonological features of Olonets and the birth of the Olonets dialects]. Heikki Leskinen's articles *Vepsän, karjalan ja inkeroisen asemasta kolmen äänepiirteen valossa* [On the status of Veps, Karelian, and Ingrian regarding three phonological features] (1990) and *Karjala ja karjalaiset kielentutkimuksen näkökulmasta* [Karelia and Karelians from the point of view of linguistics] (1998) focussed particularly on the topic of the formation of the Karelian main dialects. Virtaranta's 1973 article *Über den olonetzischen Konduši-Dialekt* [On the Olonets Kondushi dialect] is the only description of the phonological system of the Kondushi dialect. In 2000, Miikul Pahomov published his study *Muinaisvepsän tytärkielten historiallista äänneoppia: Kuujärven lyydiläismurteen klusiilit astevaihtelusuhteineen* [Historical phonology of daughter languages of Old Veps: Plosives and their consonant gradations in the Ludic Mikhailovskoye dialect] on the phonological history of the Mikhailovskoye dialect of the Karelian language. Pahomov published his dissertation *Lyydiläiskysymys: Kansa vai heimo, kieli vai murre?* [The Ludian question: Nation or tribe, language or dialect?] in 2017.

In addition to studying and describing of the Karelian language, Finnish linguists have edited and published a wide collection of Karelian language samples since the beginning of the 20th century: Ojansuu's *Karjalan kielen opas* (1907), Kujola's *Karjalan kielen opas* (1922), Eino Leskinen's three-part *Karjalan kielen näytteitä* (1932–1936), Jalo Kalima, Heikki Ojansuu, and Lauri Kettunen's *Lyydiläisiä kielennäytteitä* (1934) and *Lyydiläisiä tekstejä* (1963, 1964, 1976, 1984), Virtaranta's *Vienan kansa muistelee* (1958), *Kultarengas korvaan* (1971), *Vienan kyliä kiertämässä* (1978), *Kauas läksit karjalainen* (1986), *Karjalan kieltä ja kansankulttuuria* (1990), etc. The effort to create a dictionary of the Karelian language on the basis of the vast dialect

[20] See https://www.kotus.fi/aineistot/tietoa_aineistoista/henkiloarkistot/virtaranta_pertti for a personal history.

data that had been collected since 1894 began in 1933. The first part of *Karjalan kielen sanakirja* (edited by Virtaranta) was published in 1968, and the sixth and final part was published in 2006 (edited by Raija Koponen). The dictionary's Internet version[21] in particular has become an invaluable tool for researchers and language users alike.

The Karelian language has been the topic of licentiate theses and dissertations in Finland (see the Thematic bibliography).[22]

The University of Eastern Finland (Joensuu campus) is currently the centre of Karelian language research. Most of the unique Karelian dialect data are located there, however, audio recordings are also held in the Tape Archive of the Institute for the Languages of Finland (Helsinki) and the collections of The Finnish Literature Society (Helsinki).

Karelian vocabulary has been gathered in the Russian Empire since the beginning of the 20th century, although even before this a list of 285 words in the "languages" of "Karelian" and "Olonets" had already been included in Peter Simon Pallas's dictionary *Linguarum totius orbis vocabularia comparativa* [Comparative dictionary of all the languages in the world] (1787–1789). Mikhail Dmitrievič Georgievski's *Russko-korel'skij slovar'* [Russian-Karelian dictionary] based on the Ludic Svyatozero dialect was published in 1908, and Viktor Korolev's *Russko-Karel'skij slovar* [Russian-Karelian dictionary] based on the Livvi-Karelian Vidlitsa and Rypushkalitsy dialects in 1913.

In the Soviet Union, the study of the Karelian language and its dialects was pioneered by Dmitri Vladimirovič Bubrih[23] (1890–1949). His *Instruktsija po sobiraniju materialov po finsko-karel'skim govoram* [Instructions for gathering materials on Finnish-Karelian dialects] was published in 1928. The first dialect gathering expedition into Karelia, the purpose of which was to study the Karelian language, was organised in 1930. That is when Bubrih had the idea of conducting a comprehensive study on the region's dialects and creating a dialect atlas (Kert & Rjagojev 1997: 1–2). As soon as 1937, the first hundred maps of the dialect atlas of the Karelian language were drawn, based on the data collected into dialect gathering booklets in 150 localities. In the beginning of 1938, the work essentially halted and did not continue until after World War II. Dialect data were also gathered in the population centres of the Kalinin oblast (present-day Tver) (Kert & Rjagojev 1997: 2–3). After Bubrih's death, his work to finish the atlas was continued by Aleksandr Antonovič Beljakov[24] (1901–1995) together with Nikolai

[21] Available at https://kaino.kotus.fi/cgi-bin/kks/karjala.cgi

[22] M. Ojanen *Adjektiivikategoria venäläis-lyydiläisissä kontakteissa: Lingvistinen interferenssitutkimus* [The adjective category in Russian-Ludic contacts: A study on linguistic interference] (1985), M. Larjavaara *Itämerensuomen demonstratiivit 1: Karjala, aunus, lyydi ja vepsä* [Balto-Finnic demonstratives 1: Karelian, Olonets, Ludic, and Veps] (1986), V. Koivisto *Itämerensuomen refleksiiviverbien semantiikkaa: Karjalan ja suomen itämurteiden refleksiivitaivutus* [Semantics of Balto-Finnic reflexive verbs: reflexive inflection of Karelian and Eastern Finnish dialects] (Lisensiaatintutkielma 1989), A. Sarhimaa *Kokijarakenteet kontakteissa: Venäläis-itämerensuomalaisten kielikontaktien tutkimuksen teoriaa ja käytäntöä* [Experiencer structures in contacts: theory and practise of Russian–Balto-Finnic language contact research] (Licentiate thesis, 1992), I. Suoniemi-Taipale *Itämerensuomalaisten kielten prolatiivi* [Prolative in Balto-Finnic languages] (1994), V. Koivisto *Itämerensuomen refleksiivit* [Balto-Finnic reflexives] (1995), R. Pyöli *Venäläistyvä aunuksenkarjala: Kielenulkoiset ja -sisäiset indikaattorit kielenvaihtotilanteessa* [The Russifying Olonets Karelian: Extra- and intralanguage indicators in a language switching situation] (1996), A. Sarhimaa *Syntactic transfer, contact-induced change, and the evolution of bilingual mixed codes: Focus on Karelian-Russian language alternation* (1999), N. Kunnas *Miten muuttuu runokylien kieli: Reaaliaikatutkimus jälkitavujen A-loppuisten vokaalijonojen variaatiosta vienalaismurteissa* [The change of language in the Viena Karelian villages: A real-time study of phonological variation in Viena dialects] (2007), M. Uusitupa *Rajakarjalaismurteiden avoimet persoonaviittaukset* [Open personal references in Border Karelian dialects] (2017), M. Pahomov *Lyydiläiskysymys: Kansa vai heimo, kieli vai murre?* [The Ludian question: Nation or tribe, language or dialect?] (2017), etc.

[23] See Učenye: 353–354; http://illhportal.krc.karelia.ru/section.php?plang=r&id=1376 for a personal history.

[24] See Virtaranta 1992: 79; Učenye: 351; http://illhportal.krc.karelia.ru/section.php?plang=r&id=1331 for a personal history.

Aleksandrovič Anisimov[25] (1891–1960) and Grigori Nikolaevič Makarov. Their work was finished in 1956, but the atlas was not published until 1997. The final version also included the maps of the Tver Karelian dialects compiled by Aleksandra Vasiľevna Punžina (Kert & Rjagojev 1997: 4). *Karjalan kielen murrekartasto* [Dialect atlas of the Karelian language] is an exceptionally valuable source for researchers. It contains 209 maps, the data of which have been gathered in 250 localities in the Republic of Karelia and in the Tver oblast.

In the Soviet Union, in parallel to the compilation of the atlas, audio recordings of Karelian dialects were made, individual dialects were described, and historical-comparative research was conducted on various phonetic, morphological, and lexical phenomena.

Anisimov wrote detailed statistical descriptions of the phonetical and morphological systems of the Livvi-Karelian Kotkatjärvi subdialect: ***Fonetika sela Kotkozera*** [Phonology of the Kotkozero village] (1948, unpublished) and ***Grammatika karel'skogo jazyka (kotkozerskij govor)*** [Grammar of the Karelian language (Kotkozero subdialect)] (1948, unpublished). The Ludic Svyatozero subdialect was described by Aleksandr Pavlovič Barantsev[26] (1931–2012) in *Fonologičeskie sredstva ljudikovskoj reči* [Phonological means of Ludic] (1975) and ***Ljudikovskij dialekt karel'skogo jazyka: Fonetika i morfologija svjatozerskogo areala*** [Ludic dialect of the Karelian language: Phonetics and morphology of the Svyatozero area] (1985). Vladimir Rjagoev[27] (1935–) detailed the Livvi-Karelian Syamozero dialect in ***Očerki po livvikovskomu dialektu karel'skogo jazyka: Fonetika i morfologija*** [Studies on the Livvi dialect of the Karelian language: Phonetics and morphology] (1987, unpublished).

Karelian enclave dialects have not been ignored by researchers, either. Beljakov studied Tver Karelian in *Fonetika karel'skogo jazyka s. Tolmači Kalininskoj oblasti* [Phonetics of the Tolmachi village in the Kalinin oblast] (1947), *Morfologičeskaja sistema sobstvenno-karel'skogo dialekta (kalininskoe narečie)* [Morphological system of the Karelian Proper dialect (Kalinin main dialect] (1954) and ***Grammatika karel'skogo jazyka: Kalininskoe narečie sobstvenno-karel'skogo jazyka*** [Grammar of the Karelian language: Kalinin main dialect of Karelian Proper] (1948, unpublished). The phonological and morphological systems of the Ves'yegonsk dialect were described in Konstantin Vasiľevič Manžin's (1903–1978) manuscript ***Očerk ves'egonskogo govora sobstvenno-karel'skogo jazyka*** [Study of the Ves'yegonsk subdialect of Karelian Proper] (1964). The grammatical system of the Valday enclave dialect is presented in the study ***Karjala Valdai murrak*** [The Valday dialect of Karelian] (1962) by Pauline (Paula) Palmeos[28] (1911–1990). Rjagoev's study ***Tihvinskij govor karel'skogo jazyka*** [The Tikhvin subdialect of the Karelian language] (1977) is a synchronic description of the language of the Tikhvin Karelians.

In the past few decades, Russian Finno-Ugristics has prioritised the study of individual phenomena and linguistic categories between dialects. Petr (Pekka) Mefod'evič Zaikov's[29] (1946–) *Dialekty karel'skogo jazyka* [Dialects of the Karelian language], published in 1987, describes the most significant distinct features of the Karelian main dialects. Zaikov's study *Glagol v karel'skom jazyke* [Verb in the Karelian language], published in 2000, analysed synchronically and diachronically the grammatical categories of person, number, tense, and mood in the three main dialects of Karelian.

Phonetic and morphological phenomena of the Karelian language are the topic of Svetlana Kovaleva's monography *Tradicionnoe i novoe v leksike i grammatike karel'skogo jazyka* [Traditional and new in the lexicon and grammar of the Karelian language] (2011), Aleksandra Pavlovna Rodionova's monography *Semantika karel'skoj grammatiki* [Semantics of the grammar of Karelian] (2015), and also of Irina Petrovna Novak's monographies *Stanovlenie*

[25] See Učenye: 347–348; http://illhportal.krc.karelia.ru/section.php?plang=r&id=873 for a personal history.
[26] See Virtaranta 1992: 70–72; Učenye: 350 for personal histories.
[27] See Virtaranta 1992: 67–69; Učenye: 391 for personal histories.
[28] See https://et.wikipedia.org/wiki/Paula_Palmeos for a personal history.
[29] See Učenye: 360–361 for a personal history.

al'ternacionnoj sistemy soglashnyh karel'skoj dialektnoj reči [Formation of consonant gradation in the dialectic speech of Karelian] (2014) and *Tverskie dialekty karel'skogo jazyka: Fonetika. Fonologija* [Tver Karelian dialects of the Karelian language: Phonetics. Phonology] (2016).

Since 1941, Karelian language dialect data have been studied in a great number of candidate theses and doctoral dissertations in the Soviet Union or Russia[30], the main results of which may be found in the numerous articles by their authors (see *Appendix F. Thematic bibliography*).

In addition to the descriptions of individual subdialects and study of grammatical phenomena of main dialects and dialects, there are also several Karelian language sample collections, e.g. *Obrazcy ljudikovskoj reči* [Samples of Ludic] (1975), *Obrazcy karel'skoj reči* [Samples of Karelian] (1963, 1969, 1980, 1994), *Slušaju karel'skij govor* [Listening to Karelian subdialect] (2000), etc. There are also Karelian dialect dictionaries, such as G.N. Makarov's *Slovar' karel'skogo jazyka (livvikovskij dialekt)* [Dictionary of the Karelian language (Livvi dialect)] (1990), A.V. Punžina's *Slovar' karel'skogo jazyka (Tverskie govory)* [Dictionary of the Karelian language (Tver subdialect)] (1994), and Vieno Petrovna Fedotova and Tatjana Boiko's *Slovar' sobstvenno-karel'skih govorov Karelii* [Dictionary of the Karelian Proper subdialects in Karelia] (2009).

The Karelian language is presently being studied by researchers at the Institute of Linguistics, Literature and History Karelian Research Centre Russian Academy of Sciences (ILLH KarRC RAS, Petrozavodsk) and linguists in Petrozavodsk State University. The Scientific Archives of the Karelian Research Centre hold manuscripts of valuable articles and studies that have never been published, a wide array of linguistic data on Karelian dialects, and research material from field expeditions. The Audio Archive of the KaRC Institute of Linguistics, Literature and History holds field expedition materials that have been gathered since the 1930s.

[30] A.S. Rohlin *Formy vozvratnyh glagolov v karel'skom jazyke* [Reflexive verb forms in the Karelian language] (1941), A.A. Beljakov *Sovremennyj karel'skij dialekt s. Tolmači* [The contemporary dialect of Karelian of the Tolmachi village] (1947), V.E. Zlobina *Fonetika oloneckogo govora karel'skogo jazyka* [Phonetics of the Olonets subdialect of the Karelian language] (1948), A.P. Barantsev *Fonologičeskie sredstva ljudikovskoj reči* [Phonological means of Ludic] (1971), A.V. Punžina *Imennye kategorii v kalininskih govorah karel'skogo jazyka* [Nominal categories in the Kalinin subdialects of the Karelian language] (1977), L.F. Markianova *Suffiksal'noe glagol'noe slovoobrazovanie v karel'skom jazyke* [Verb derivation in the Karelian language] (1979), V.D. Rjagoev *Tihvinskij govor karel'skogo jazyka* [The Tikhvin subdialect of the Karelian language] (1979), J. Õispuu *Sistema glagol'nogo slovoizmenenija v južno-karel'skih periferijnyh govorah* [Verb conjugation system in South Karelian enclave subdialects] (1985), T. Kukk *Slovoobrazovanie narečij v karel'skom jazyke* [Adverb formation in the Karelian language] (1987), E.L. Adel' *Sistema glagol'nogo slovoizmenenija padanskogo govora karel'skogo jazyka* [Verb conjugation system in the Padany subdialect of the Karelian language] (1995), J. Õispuu *Karjala keelesaarte sõnamuutmissüsteem* [Word inflection system in the enclave dialects of the Karelian language] (1996) (doctoral dissertation), P.M. Zaikov *Glagol'noe slovoizmenenie v karel'skom jazyke* [Verb conjugation in the Karelian language] (1997) (doctoral dissertation), N.M. Giloeva *Voprositel'nye, neopredelennye i obobščitel'no-opredelitel'nye mestoimenija v dialektah karel'skogo jazyka* [Interrogative, indefinite and definite pronouns in the dialects of the Karelian language] (2003), E.V. Bogdanova *Vozvratnoe sprjaženie v dialektah karel'skogo jazyka* [Reflexive conjugation in the dialects of the Karelian language] (2003), M.V. Naumova *Glagol'noe upravlenie v livvkovskom narečii karel'skogo jazyka* [Case government in the Livvi-Karelian main dialect] (2006), A.P. Rodionova *Puti razvitija poslelożnoj sistemy karel'skogo jazyka* [Developments of the postpositional case system in the Karelian language] (2007), I.P. Novak *Formirovanie i funkcionirovanie čeredovanija stupenej soglasnyh v karel'skom jazyke* [The formation and function of consonant gradation in the Karelian language] (2011).

Standard varieties of Karelian

There is a vast amount of oral folk poetry in the Karelian language. A birch bark letter found in Novgorod in 1957, dated to the 1100s or 1200s and thought to contain a thunder spell (see Eliseev 1959: 66), is traditionally regarded as the first literary monument of the Karelian language[31]. Some texts were published in Karelian in the early 1800s (see Kovaleva & Rodionova 2011: 9–10; Sarhimaa 2017: 35–37).

The Karelian-language literature created in 1930 for the Karelian population of the Tver National Okrug may be considered to be the first normative grammar of the Karelian language. Bubrih had suggested that the literary language[32] be based on the Tolmachi village subdialect and be written in the Latin alphabet. The basic rules of this variety of standardised written Karelian may only be inferred from an abc book and a number of school books that were printed in Karelian, as no grammar was ever published. Presently, the written language in Tver Karelia is still developed based on the Tolmachi dialect.

In August of 1937, a linguistic conference was held in Petrozavodsk, and it was decided that a literary language was to be developed for Karelian, ”not based on any individual main dialect of Karelian but instead widely on the language of the common people” (Bubrih 1937: 4). Bubrih's ***Grammatika karel'skogo jazyka***[33] [Grammar of the Karelian language] (1937) was written in the Cyrillic script, and its author sought to select and combine ”into a unified system the linguistic phenomena that best accomodate all Karelians regardless of the main dialect to which they belong”. According to Bubrih, ”the literary language thus constructed differs but little from the literary language that had already existed since 1931 in the Kalinin oblast” (Bubrih 1937: 4).

In January of 1938, Bubrih's grammar served as the basis for *Osnovnye pravila pravopisanija edinogo karel'skogo literaturnogo jazyka na novom alfavite* [Basic orthographical rules of the common Karelian literary language[34] written in the new alphabet], addressed at the meetings of the Leningrad affiliate of the institute of language and the written language of the peoples of the Soviet Union that sought to develop a common orthography for the Karelian language. In the course of this work, it was decided that a set of changes was to be made to the Basic orthographical rules, bridging the gap between the new standard and that of Tver Karelian even further. Although active measures were taken in Russian Karelia to implement the new literary language, it was not readily adopted, for which reason in 1938 work began in the Karelian Autonomous Soviet Socialist Republic to develop a new variety of the Karelian literary language. Its rules were to be developed by Anisimov, and this new variety was to be scourged of any Finnish or Tver Karelian influences, archaisms, and neologistic vocabulary. Anisimov's school grammar ***Karel'skoin kielen grammatika*** [Grammar of the Karelian language] was published in Karelian in 1939; however, the Karelian Autonomous Soviet Socialist Republic was turned into the Karelo-Finnish Soviet Socialist Republic soon after, and the Karelian language fell out of use. (Anttikoski 1998: chapter 10.)

Meanwhile, there was an on-going project to create rules for a common Karelian literary language in Finland as well. Edvard Vilhelm Ahtia[35] (1867–1953) wrote a three-part grammar of Karelian based on the Livvi-Karelian Rypushkalitsy and Syamozero and the Karelian Proper

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[31] While the monument is written in some Finnic language, whether the language in question is or is not (Old) Karelian remains a point of contention (see Laakso 1999; Sarhimaa 2017: 33–34).

[32] The term ”literary language” is used throughout this study as a synonym for ”standardised written language”.

[33] The names of the grammars that were used as the primary sources of this study to describe the phonetical and morphological systems of the standardised varieties of the Karelian language are in boldface.

[34] Esa Anttikoski in his licentiate thesis uses the term *unified Karelian literary language* (1998: Chapter 8).

[35] See KKS I: XXIV–XXXVIII for a personal history.

Suoyarvi dialects. The first part, ***Karjalan kielioppi: Äänne- ja sanaoppi*** [Grammar of Karelian: Phonology and Morphology] was published in 1938[36], but the following two parts *Johto-oppi* [Derivation] and *Lauseoppi* [Syntax] would remain unpublished until 2014.

A new attempt to create a common Karelian literary language was not made until half a century later. In May 1989, a conference called *Karelians: people, language, culture, economy, developmental problems and developments in the improvement of interpeople relations in the Soviet Union* was held by the Institute of Linguistics, Literature and History Karelian Research Centre Russian Academy of Sciences. Topics of the conference included the question of revitalising the Karelian language and the possibility of teaching Karelian in the schools of the Republic of Karelia. A decision was made to develop a literary language for Karelian using the Latin alphabet, based on the Karelian Proper (Viena Karelian dialects) and Livvi-Karelian main dialects.

New grammars were needed for the new literary language so that Karelian could be taught at schools in the Republic of Karelia. No later than 1990 saw the publication of such Karelian study materials as Zaikov's *Karjalan kielen kielioppie I, II* [Karelian Grammar] (1992, 1993) and Lyudmila Fedorovna Markianova's[37] (1941–) *Livvin murdehen foneetiekku* [Phonology of the Livvi-Karelian dialect] (1992), *Livvin murdehen morfolougii. Verbit. Adverbit* [Morphology of the Livvi-Karelian dialect. Verbs. Adverbs] (1995). They served as a basis for such later grammars as Zaikov's *Grammatika karl'skogo jazyka (fonetika i morfologija)* [Grammar of the Karelian language (phonology and morphology)] (1999), *Karjalan kielioppi 5–9* [Grammar of Karelian 5–9] (2002), *Vienankarjalan kielioppi* [Grammar of Viena Karelian] (2013), and Markianova's *Karjalan kielioppi 5–9* [Grammar of Karelian 5–9] (2002). A grammar of Livvi-Karelian in Finnish, *Livvinkarjalan kielioppi* [Grammar of Livvi-Karelian], was published in 2011. It was edited and written by Raija Pyöli based on Markianova's grammar. The rules presented in the grammars form the foundations for the contemporary, developing standard varieties of Karelian. They have served as a basis for abc books, dictionaries, reading books, and study materials published in the course of a quarter of a century. The work to standardise Viena Karelian and Livvi-Karelian is on-going.

Presently, there are attemps to develop standard varieties for Ludic and the South Karelian dialects of Karelian Proper. The literary language of the Tver Karelians is being developed based on the Tolmachi dialect. Each of these standard varieties lack a normative grammar, which is why it has not been possible to include them in the comparison of this study.

The Comparative Grammar of Karelian project

The main goal of our Finnish-Russian *Vertaileva karjalan kielioppi* [Comparative Grammar of Karelian] joint research project that ran from 2015 to 2018 and was funded by the Kone Foundation, was to produce data on the diversity of the phonetics and morphology of the Karelian language, for the use of researchers, Karelian speakers, and anyone interested in the language.

The main focus of the project was to study the structural diversity of Karelian and all of its varieties, including Ludic, which in Russia is considered to be one of the three main dialects of Karelian. There were two parallel activities in the project, each supporting the other: linguistic research and civic activity.

The research side of our project comprised a detailed linguistic comparison of phonetic and morphological features of the various Karelian lects. The goal was to assess the breadth of linguistic variation by means of comparative research. Variation itself was examined as a continuum, and the data were organised into the tables of this study in a manner that would

[36] The grammar's preface is dated 1936.

[37] See Virtaranta 1992: 74–75; Učenye: 378–379 for personal histories.

reflect that; the data are presented in each table lect by lect, first from the descriptive and then from the normative grammars. Thus it was possible to show that normative grammars do not fully cover the linguistic variation that is characteristic to Karelian. Our main focus was on describing this variation instead of attempting to explain its origin.

Karelian lects have lost their regional unity, which has enabled differences to form between them. However, little comparative research on Karelian exists. Zaikov's monograph *Glagol v karel'skom jazyke* (2000) gives an overview of the three main dialects. Also in *Dialektologija karel'skogo jazyka* [Dialectology of the Karelian language] (1987, 2017) Zaikov presents a comparison of the phonology and morphology of the dialects of Karelian and their most significant differences. Basic information on how Karelian lects differ from each other may be found in several brief overviews of the Karelian language in encyclopaedias (e.g. Makarov 1966, Kert 1983, Rjagoev 1993, 2001, 2003) and scientific articles (e.g. Beljakov 1958, Virtaranta 1972).

Our research data represents all varieties of Karelian and comprises fourteen descriptive and eight normative grammars.[38] There are ten grammars in total on Karelian Proper, three of them on Viena Karelian (Zaik, ZaiK, ZaikV), five on South Karelian, and one that covers both (GenV). Of the South Karelian descriptions, one is based on the Suoyarvi dialect (GenS), while four grammars detail the enclave dialects of Valday and Tikhvin (Palm and Rjag, respectively) and Tver Karelian (Bel, Manž). We examined six descriptions of Livvi-Karelian (AnisF, AnisG, GenA, Mark, Pyöl, RjagL) and three descriptions of Ludic (Bar, GenL, Virt). Finally, three grammars represent the Karelian literary languages developed in the 1930s; two in the Soviet Union (Bubr, Anis) and one in Finland (Aht).

These grammars are all traditional form-based language descriptions. Therefore, our comparison is based on the phonetic system and basic grammar, both of which form the basic structure of a language. Grammatical categories and phonetic features serve as our starting point in comparing different varieties of the same language and the phonetics and morphology of the grammars.

Comparison of the research data presented some challenges. One of them is temporal, as the grammatical descriptions have been written in different periods and in whichever research tradition was prevalent then; they also employ the terminology of their time and are written in various languages — namely Russian, Finnish, Karelian, and Estonian. The grammars span a period of some 150 years, in which three temporal points of comparison may be identified: the end of the 19th century, the 1930s, and the 21th century. Our oldest material consists of descriptive grammars. The earliest normative grammars, intended for school education, for instance, are from the 1930s. Some descriptive grammars were published in the 1900s as well, and normative grammars intended to be used as school books were published in the 21st century. Interestingly, the oldest grammars were been written by linguists who were not native speakers of the language (such as Genetz, Bubrih, Ahtia, but also Virtaranta and Palmeos), whereas with the newer grammars it is more often the case of a native speaker's describing their mother tongue (Zaikov, Markianova, Pyöli, Barantsev, Beljakov, Rjagoev).

Another challenge has been the fact that descriptive and normative (basically pedagogically-oriented, in part meant as school books) grammars serve different functions. Grammatical information is of course also cumulative, as grammarians benefit from existing works, which creates dependencies between them. The core of our research data is formed by these grammars that have been published in different societal and language-political situations. It has then been supplemented with unpublished descriptive grammars.

The result of the linguistic part of our research project, *Karelian in Grammars*, may be used as a handbook, as it employs basic theory of grammar and the results of the comparison

[38] See *Sources and references* for a detailed list.

have been documented and collected into 76 tables, which makes the information readily accessible. Table 77 of the *Conclusions* chapter illustrates which linguistic categories have been described at different times and also which ones still remain unstudied.

Our research data are then compared with the results of the Dialect atlas of the Karelian language for validation. Kalevi Wiik (2004) used the atlas data in his own quantitative analysis by compiling a distance table for the different dialects to classify them by eye. In this project, this method has been improved by using a computerised clustering algorithm to show the similarity between the dialects. Repeating the clustering process provides an opportunity to compare the dialects on different levels of accuracy. The results of the clustering are visualised on a map.

The dialect atlas contains 206 maps, each of which is based on a question concerning grammar or vocabulary. There are 186 places in the atlas in total, and the number of variants provided by the answers to each question ranges from 3 to 15. All the data in the atlas was first digitised. The atlas contains no information on the dialects of Border Karelia, and it is no longer possible to collect corresponding data from that area. However, data from the atlas have been supplemented with data from six Border Karelian volosts — Salmi, Impilakhti, Suystamo, Suoyarvi, Korpisel'kya, and Ilomantsi — by gathering information from the language samples in Eino Leskinen's (ed.) *Karjalan kielen näytteitä II*. Unfortunately, these data are very sparse and are not as reliable as those of the atlas; 206 maps contain an answer to each grammatical question from each locality, but 5 maps are missing the answer from Salmi, 21 from Impilakhti, 10 from Suystamo, 21 from Suoyarvi, 41 from Korpisel'kya, and 50 from Ilomantsi. However, these rudimentary data can be seen to provide an approximation of those dialects and have thus been included in the clustering. In total, (186+6)×206 data points with 3 to 15 answer options to each grammatical question, depending on the map, were collected for clustering. The grammatical distance of two localities is the number of grammatical questions to which they give a different answer, thus a number between 0 and 206.

The clustering programme pairs each locality with another whose answers differ the least. Once each locality has been connected to its linguistically closest neighbour, they form groups called *clusters*. Each cluster consists of at least two localities. If at least two clusters are formed, the procedure is repeated. The distance between two clusters is the shortest distance between their localities. If the number of localities on the map is p, at most $\log(p)$ number of iterations is needed until they merge into one cluster. As there are 186(+6) localities on in the atlas, it cannot take more than 8 iterations to combine all the village dialects into one language. In practise, 4 iterations will suffice when the distance is calculated on any given subset of the maps. Clustering represents dialects combining into larger dialects. If there are 4 clustering levels, they may be technically called *local dialects* (level 0), *subdialects* (level 1), *dialects* (level 2), *main dialects* (level 3), or a *language* (level 4). Each cluster map, which may represent any linguistic category or categories, may be viewed on levels 0, 1, 2, … On level 0, each locality has a separate dialect. The dialects combine on each level into larger wholes until they all finally merge into one *language*.

This publication includes only the most illustrative clustering maps. More may be found at http://karjalankieliopit.krc.karelia.ru. The maps offer a great deal more information in their interactive form.

Karelian in Grammars is a source of data for those who wish to obtain information on the different Karelian lects, for, for example, the creation of language products for linguistic communities. At the same time, with its thematic bibliography, it serves as a good starting point for further research on the grammatical structure of Karelian. It also offers basic information to the writers of new pedagogical grammars or even reference grammars.

Karelian in Grammars was initially published in Finnish and Russian, as Karelian is a language spoken both in Russia and Finland and its speakers are bilingual. It is also available in Karelian.

In parallel with our linguistic research, we have also engaged in civic activity in hopes of influencing the attitudes surrounding the Karelian language and increasing mutual respect and understanding between the speakers of Karelian and strengthening their linguistic identities. Karelian is but a spoken language to most, and the speaker community is divided between two countries, dispersed widely over a vast geographical area. Karelians have, therefore, only had a vague concept of the language spoken by other Karelians, and they might even be prejudiced against them, as few speakers have had the opportunity of finding out for themselves whether or not they can understand the speaker of some other Karelian variety.

We have organised events in the framework of our project in Russia and Finland that have sought to encourage each speaker to use their own lect but at the same time to be tolerant of the speakers of another varieties. In 2015 we held a Karelian dialect writing competition. The entries, some of which have been recorded in audio, have been published in the book *Minun oma kieli* [My own language]. The book's publication event took place in Karjalan Kielen Kodi [Home of the Karelian Language], Vedlozero, on July 22, 2015. It aimed at activating Karelian speakers to write about their linguistic identities in Karelian and to further the language's development into a day-to-day use language. In the following year, on October 15, 2016, an event called *Murdehien päivä* [Dialect Day] was held at the same place, with a dialect identification contest in which speakers of various Karelian lects took part. The 2017 event was a seminar called *Edvard Ahtia ja Dmitri Bubrih: karjalan kielen kehittäjät* [Edvard Ahtia and Dmitri Bubrih: developers of the Karelian language], held on November 10 together with the subject of Karelian language and culture in the Joensuu Campus of Eastern University of Finland, in honour of grammarians of Karelian. An overview of this project has been given in each event and also in the articles of the *Oma Mua* newspaper (2015, 2017 Petrozavodsk) and on *Karelija* (Petrozavodsk), Karelian state television.

We have created a website with an audio map of Karelian dialects to make them more familiar to Karelian speakers or anyone interested. By selecting a point that represents a locality on the map, the user can hear an audio recording excerpt that represents the dialect of that particular locality and read its transcript. These audio recordings were received courtesy of the Tape Archives of the Institute for the Languages of Finland and the Audio Archive of the KaRC Institute of Linguistics, Literature and History, with the exception of the newer recordings that came from the project's writing competition. The map is accessible at the Karelia Research Center's website at http://karjalankieliopit.krc.karelia.ru.

The *Vertaileva karjalan kielioppi* project team consisted of Lea Siilin, PhD (professor emerita, project lead, University of Eastern Finland), Martti Penttonen, PhD (professor emeritus, University of Eastern Finland), Irina Novak, Candidate of Philology (researcher at Karelia Research Centre, Petrozavodsk), Aleksi Ruuskanen, MA (2016–2018), and Sirkka Vepsä, MA (2015). Vepsä took part in gathering and tabulating research material with Novak (cd-rom, comparison tables with over 5,000 pages). Novak was responsible for the handling and comparison of the research data. She procured the unpublished research material of this study and wrote the Russian manuscript of the study. Novak also edited the Russian publication[39]. Siilin translated the Russian manuscript into Finnish and edited the Finnish publication, with editing contributions from the whole team. Ruuskanen participated in writing the manuscript's sections on infinitives, participles, postpositions, prepositions, conjunctions, and interjections, and also translated the study into English from the Finnish.

[39] Novak's editorial work was performed in the framework of the Institute of Linguistics, Literature and History Karelian Research Centre's budget theme AAAA-A18-118012490344-5 "The Baltic-Finnish languages of the North-West of the Russian Federation: linguistic research in social and cultural context".

Penttonen was the civic activity lead and also procured the published grammars for the project. He was also responsible for the project's IT implementations, wrote the Karelian dialect clustering computer programme, and translated the study into Karelian from the Finnish. Penttonen, Novak, and Ruuskanen created the audio map of Karelian dialects and transcribed its excerpts.

PHONETICS OF KARELIAN

The basic unit of a language's sound system is the phoneme. The phonemes of a language form oppositions between one another, which is to say they are in opposition in terms of one phonetic feature, e.g. voicing (LÈS). Phonemes serve as construction blocks for the smallest meaningful units of language, morphemes (VISK § 1). A single phoneme can be realised as several variants, called allophones (LÈS).

Phonemes are divided into two groups based on their articulatory features. Vowels are produced with no obstruction to the flow of air in the vocal tract, while consonants are always produced with a closing or narrowing in the vocal tract (cf. VISK § 1).

1 Vowels

Vowels are voiced sounds that are produced with no obstruction to the flow of air in the vocal tract. Their most important phonetic functions is to form syllables and construct the phonetic whole of a syllable and a word. As syllable-forming elements, vowels affect the quality of their neighbouring consonants.

Vowels are classified based on the following articulatory features: tongue height (the degree of openness or closeness), tongue backness (the degree of frontness or backness), and lip roundedness. In the Karelian language, monophthongs, diphthongs, and triphthongs are in phonemic opposition, whereas short and longs vowels are in length opposition.

The short vowel phonemes are the same in all dialects of Karelian. Depending on their place of articulation, i.e. whether the back of the tongue is raised during articulation, vowels are divided into usually two or, in some Karelian grammars, even three groups:

– back vowels, in which the back of the tongue is raised;

– front vowels, in which the middle part of the tongue is raised;

– central vowels, in which the part of the tongue somewhere between the former two is raised.

Traditionally, vowels are divided into the following groups based on the height of the tongue:

– closed vowels, which are characterised by the tongue being raised close to the roof of the mouth;

– open vowels, with the tongue minimally raised;

– mid vowels, in which the height of the tongue is less than in the case of closed vowels but more than in the case of open vowels.

Depending on the position of the lips, i.e. their roundedness or unroundedness, vowels are divided into labial vowels, articulated with the lips protruding and rounding, and illabial vowels, which are articulated with the lips in a neutral position. (See Genetz 1880: 165; Anisimov 1948: 1–3; Beljakov 1949: 10–11; Palmeos 1962; 7–8; Rjagoev 1977: 9; Barantsev 1985: 8; Rjagoev 1987: 23.)

The vowel phonemes in Karelian dialects are presented in Table 1.

In Karelian dialects, the vowel phonemes *i* and *e* have the central allophones [*i̯*] and [*e̯*] that occur mainly after non-palatalised consonants in back vowel lexemes and loan words, but also in some dialects in the diphthong *i̯a* (see Kujola 1910: 4; Ojansuu 1918: 89–93; Nirvi 1932: 18; Leskinen 1933: 46; Turunen 1950: 7, 12; Barantsev 1975: 39). The vowels *u* and *y* have the semivowel allophone *w*, which occurs in some dialects as the last segment in diphthongs and triphthongs and is not an independent phoneme. Each short vowel in Karelian may occur in the beginning, middle, or end of a word.

Analysis of Karelian dialect data reveals two word-medial vowel changes, namely, the labialisation of a vowel in a stressed syllable[40] and word-medial vowel loss.

1.1 Labialisation of *i* and *e* in a stressed syllable

Labialisation of the vowels *i* and *e* in a stressed syllable, caused by labial vowels or consonants that are either in their immediate proximity or some distance away, is typical of some Karelian dialects (see Kujola 1910: 17; Ojansuu 1918: 92–93; Nirvi 1932: 31–32; Leskinen 1933: 50–51). Karelian dialect dictionaries (KKVS, LMS) and the gathering programmes for the dialect atlas of the Karelian language provide the following examples:

– *keyhä / keyhy / keyh(e)* 'poor' (Livvi-Karelian, Ludic, Vychetaybola, Kestenga, Olanga, Ukhta, Voknavolok, Panozero, Poduzhemye, Yushkozero, Maslozero, Tunguda, Rugozero, Reboly, Porosozero, Padany, Myandusel'ga, Ilomantsi, Korpisel'kya, Suoyarvi, Suystamo, Tolmachi, Ves'yegonsk, Dyorzha)

– *köyhä / köyh* (Voknavolok, Kontokki, Yushkozero, Tunguda, Rugozero, Padany, Reboly, Tolmachi, Ves'yegonsk, Salmi; North, Central, and South Ludic) (Programmy: 11)

– *liyheš / liyhes / liyheh* 'a sheaf' (Kestenga, Ukhta, Voknavolok, Kontokki, Suomussalmi, Yushkozero, Tunguda, Rugozero, Suoyarvi, North Ludic, Suystamo, Tikhvin, Tolmachi, Ves'yegonsk, Dyorzha, Salmi, Tulomozero, Syamozero, Nekkulitsy, Rypushkalitsy, South Ludic)

– *lyyheš / lyyhes / lyyheh* (Padany, Myandusel'ga, Porosozero, Suystamo, Valday, Tolmachi, Ves'yegonsk, Vedlozero, Vidlitsa, Nekkulitsy, Rypushkalitsy)

– *pizyö / pisyö* 'to stay' (Kestenga, Ukhta, Voknavolok, Kontokki, Tunguda, Porosozero, Tolmachi, Ves'yegonsk, Dyorzha), *pyzyö* (Livvi-Karelian, Ludic, Padany, Suoyarvi, Suystamo, Tolmachi, Ves'yegonsk)

– *mityš / mitys* 'what kind' (Livvi-Karelian, Kestenga, Tikhtozero, Ukhta, Voknavolok, Kontokki, Padany, Suoyarvi, Suystamo, Valday, Tolmachi, Ves'yegonsk, Dyorzha; North, Central, and South Ludic

– *mytyš / mytys* (Vychetaybola, Voknavolok, Yushkozero, Tunguda, Rugozero, Reboly, Padany, Myandusel'ga, Tikhvin, Tolmachi, Ves'yegonsk, Central Ludic)

– *vemmel / bemmel* 'a shaft bow' (Karelian Proper, Livvi-Karelian), *vömmel* (Tolmachi), *bömböl* (Central Ludic).

As the examples show, labialisation occurs in Karelian Proper and Ludic rather inconsistently, whereas in Livvi-Karelian it occurs only rarely. Turunen sees the vowel labialisation in the first syllable in Ludic dialects as influence from Veps (Turunen 1950: 8–15). Labialisation is typical of other Finnic languages as well. According to Rapola, these changes are natural from the phonological point of view and might have occurred independently in each dialect (Rapola 1966: 346).

[40] For the labialisation of stem-final vowels see chapter 3.4 *Other stem-final vowel alternations*.

1.2 Syncope

Syncope, characteristic to Karelian dialects, is the loss of short vowels or even full syllables from the interior of a word.

In most dialects of Karelian, syncope occurs irregularly. Most often it is the case of vowels' randomly disappearing from unstressed syllables in rapid speech (*unohtelmah* inf3. ill. of *unohella / unohtella* 'to forget', *ad'vo* 'guest', *santah* pres. ind. 3pl of *sanuo* 'to say, to speak', *kačtah* pres. ind. 3pl of *kaččuo* 'to watch', *huomna* 'tomorrow'. (Genetz 1872: 19; Genetz 1885: 134; Rjagoev 1977:2; see also Ojansuu 1918: 126–129; Nirvi 1932: 67–69; Leskinen 1933: 94–95.) There is also a phenomenon in some Karelian dialects that is the opposite of syncope: the epenthetic use of a schwa vowel between consonants after a primary-stressed syllable (Yushkozero, Tolmachi: *šulahane* 'a groom'). More such examples exist in Karelian Proper dialects, including enclave dialects. This gives reason to believe that there is a common root to the phenomenon, the birth of which is likely to have been affected by Eastern Finnish dialects. (See Ojansuu 1918: 131; Leskinen 1998: 372; VISK § 33.)

In the Dyorzha dialect of Karelian Proper, regular syncope affects vowels in an unstressed syllable that is followed by a long syllable (i.e. one that is closed or contains a long vowel or a diphthong) (see SKG: 6; Palmeos 1966: 3) (*hambhat* 'teeth', *pelvhašt* [ela. sg of *pelvaš* 'flax'], *hebzet* 'horses', *šanelmah* [inf3. ill. of *šanella* 'to speak, to tell'], *aštah* [pres. ind. 3pl of *aštuo* 'to step, to walk'], *tyt't'zet* 'girls', cf. Tolmachi: *hambahat*, *pelvahašta*, *hebozet*, *šanelomah*, *aššutah*, *tyttözet*). According to Palmeos, vowel loss began in the word-final position and spread to the second syllable (Palmeos 1966: 4). One should not discount the possibility that this could have been influenced by the local dialects of Russian. Syncope is a recent phenomenon in the Dyorzha dialect, as language samples contain words in which the final vowels have not been reduced.

Syncope occurs regularly also in the Mikhailovskoye dialect of Ludic, in which, with the rare exception, it has spread also into the vowels in unstressed open syllables after long syllables (*leiktan* pres. ind. 1sg of *leikata* 'to cut', *kuivnu* act. ptcp2 of *kuivada* 'to dry', *painmaha* inf3 ill. of *painada* 'to press; to weigh', *peigлod* 'thumbs', *hatrad* 'foot wrappings', *лambahad* 'sheep [pl]', *rahvad* 'people') (Turunen 1950: 127–139). In the Mikhailovskoye dialect, syncope is similar to that in the Veps language (see Tunkelo 1946: 528), as also stated by Turunen. He focusses particularly on cases in which vowels have been re-inserted into the word due to the influence of the neighbouring Livvi-Karelian dialects. (Turunen 1950: 139–140.) According to Turunen, syncope may have previously occurred also in other Ludic dialects, but the restorative vowel insertion process has occurred in them differently from the Mikhailovskoye dialect (Turunen 1950: 154). In North Ludic subdialects syncope also affects 1st infinitive verb forms, some other conjugated verb forms, and also certain lexemes, e.g. North Ludic *antta* 'to give', *künttä* 'to plough', *anttau* pres. ind. 3pl, *künttää* pres. ind. 3pl, *anttii* imperf. ind. 3pl, *künttii* imperf. ind. 3pl; cf. Central and South Ludic *andada*, *kündädä* (see Turunen 1950: 127, 140).

In the case of both the main dialects and dialects of Karelian, their essential characteristics concern word-final vowels. This is due to the representation of the word-final **a, a, i* and also apocope in Late Proto-Finnic.

1.3 Apocope

Apocope, or the loss of the final vowel in a word, is typical of the Ludic Mikhailovskoye dialect and South and Central Ludic dialects (North and Central Ludic, Mikhailovskoye: *aid* 'a fence', *hein* 'hay', *haлg / haug* 'split firewood', *kainaл / kainoл* 'an armpit', *lind* 'a bird', *ar'g* 'time, day, or

food outside of fasting', *dälg* 'a trace; a footprint', cf. Central and South Ludic: *aide* / *aidu*, *heine* / *heiny*, *halgo*, *kainalo*, *lindu*, *argi*, *dälgi*). According to Turunen (Turunen 1950: 154–164), apocope in Ludic originates in the Veps language, in which the phenomenon is realised in the same manner (see also Tunkelo 1946: 560–561). It appears that word-final vowels in all Ludic dialects were affected by elision, but in some subdialects they have since been restored due to the influence of the neighbouring Livvi-Karelian dialects (see Turunen 1950: 161–165, 170).

In the Dyorzha dialect of Karelian Proper, word-final vowel elision affects bi- and polysyllabic word forms and the second segment of diphthongs (SKG: 6; Palmeos 1966: 2–3). 1966: 2–3). In some cases, the deleted vowel has been replaced by a reduced vowel *e* or *w*, which is close to a zero phoneme (*buabo šieľď viiď elošš* 'grandmother made it out of there alive', *diad alott šywv* 'grandfather began to eat', *makšu* 'to pay', *šiide* 'then', *ukk* / *ukke* '[an old] man', cf. Tolmachi *buabo šieldä viidi elošša*, *diedo alotti šywvä*, *makšua*, *šiidä*, *ukko*). Apocope in the Dyorzha dialect is considered a young and independently developed phenomenon, as evidenced by its not yet having spread into the speech of the older generation in the middle of the 20th century. Word-final vowel reduction has apparently been influenced by the local subdialects of Russian (see Õispuu 1985: 181).

Furthermore, cases in which positionally determined apocope is irregular are by and large characteristic to Karelian dialect speech. The phenomenon has mainly affected vowels located on the boundary between the components of compound nouns in which the initial component is disyllabic and the first syllable is long, whereas the second syllable begins with a vowel. It also occurs in speech stream on word boundaries when a vowel-final word form is followed by a vowel-initial word (*šüötett‿oliš* 'would have been fed', *omal‿akale* 'for his own wife' [GenL], *kus taht‿olgah* 'wherever they might be', *äjj‿on* 'there is a lot' [GenA], *tän vuoden* '[during] this year', *käz‿aštie* a handwashing device, *hein‿aiga* 'harvest-time [lit. hay time]' [Palm], *mučokš‿annettii* '[she] was given as a wife', *mäntie* 'no idea [lit. go (and) know]', *kakštoista* 'twelve' [Rjag]). (See Genetz 1870: 214; Genetz 1872: 8; Genetz 1885: 133; Kujola 1910: 14, 27; Ojansuu 1918: 133; Nirvi 1932: 72–74; Leskinen 1933: 99–100; Turunen 1950: 170.)

1.4 Word-final vowel alternations

Alternation of the word-final **a* and **ä* in certain phonetic positions (excluding disyllabic nominals with a short first syllable) is characteristic to Livvi-Karelian and Ludic dialects. As shown by the descriptive grammar data, this alternation occurs particularly in the nominative of stems that end with *a* or *ä* (Karelian Proper: *adra* / *atra* 'a plough', *päivä* 'a day', *akka* 'a wife' [Dyorzha: *akk*, *päiv*, *akk*]). The nominative of disyllabic stems with a long or closed first syllable ends with *u* or *y* (*adru*, *päivy*, *akku*) in Livvi-Karelian and its neighbouring eastern Suystamo, southeastern Suoyarvi, and western South Ludic subdialects. In the Livvi-Karelian Kondushi dialect, *o* and *ö* typically occur in this position (*adro*, *päivö*, *akko*) (Virtaranta 1973: 267–275). In South Ludic and its neighbouring Central Ludic subdialects, the vowel *e* occurs in this position, apparently as the result of the re-introduction of a deleted word-final vowel (*adre*, *päive*, *akke*). In the Mikhailovskoye and North Ludic dialects and northern Central Ludic subdialects, a complete elision has taken place (*adr*, *päiv*, *akk*). (See Genetz 1870: 217; Genetz 1872: 8; Genetz 1885: 132–133; Kujola 1910: 27; Ojansuu 1918: 131; Nirvi 1932: 70–72; Leskinen 1933: 95–97; Turunen 1950: 154–161; Virtaranta 1972: 19–21; Barantsev 1985: 9–14; Atlas: map 27; Programmy: 17; KKMK.)

World-final vowels *a*, *ä* have been deleted in bi- and polysyllabic nominals in Ludic and Livvi-Karelian (*ikkun* 'a window', *tavar* 'a thing, a belonging', *orav* 'a squirrel', *emänd* 'a matron'; cf. Karelian Proper: *ikkuna*, *tavara*, *orava*, *emändä* / *emäntä* but Dyorzha: *ikkun*, *tavar*, *orav*, *emäń'ď*'). In Livvi-Karelian subdialects elision occurs mainly after *j*, *l*, *m*, *n*, *r*, and

in almost every dialect *d* and *v* are followed by *u* and *y* (*oravu*, *emändy*; although Kondushi: *emändö*). (See Genetz 1870: 217; Genetz 1872: 8; Genetz 1885: 132–133; Kujola 1910: 27; Ojansuu 1918: 131; Nirvi 1932: 71; Leskinen 1933: 98; Turunen 1950: 154–156; Virtaranta 1972: 19–21; Barantsev 1985: 9–14; Atlas: maps 28–30; Programmy: 19; KKMK.)

This alternation also affects the word-final *a* and *ä* of grammatical suffixes. Vowels have been deleted from the inessive and adessive suffixes in Ludic and Livvi-Karelian and also in their neighbouring Border Karelian subdialects of Karelian Proper and southern Myandusel'ga subdialects (*mečäs* ines. sg of *meččy* 'a wood / forest', *kirvehel* ade. sg of *kirves* 'an axe', cf. Karelian Proper: *mečäššä* / *mečässä*, *kirvehellä* [Dyorzha: *mečäšš*, *kirvehel'l'*, Myandusel'ga: *mečäs*, *kirvehel*]). The vowels *u*, *y* occur in the essive and partitive suffixes in Livvi-Karelian and Border Karelian Suystamo and Suoyarvi dialects and eastern South Ludic subdialects (*o*, *ö* in Kondushi), whereas elision takes place in other dialects of Ludic (Livvi-Karelian: *kondiedu* par. sg of *kondii* 'a bear', *akannu* ess. sg of *akku* 'a wife, [an old] woman' (Kondushi: *akkanno*), Ludic: *kondiad* / *kondijad* / *kondiedu*, *akkan* / *akkannu*, cf. Karelian Proper: *kontieta* / *kondieda*, *akkana* (Dyorzha: *kondid*, *akkan*). The vowels *o*, *ö* occur in the 1pl and 2pl verb suffixes in Livvi-Karelian dialects and their neighbouring Border Karelian Suoyarvi and Suystamo Karelian Proper subdialects, whereas *e* occurs in most of Ludic; an elision occurs in Mikhailovskoye (Livvi-Karelian: *näimmö* pres. ind. 1pl of *nähtä* 'to see', Ludic: *nägemme* / *nägemm*, cf. Karelian Proper: *niämmä* [Dyorzha: *niämm*]). (See Genetz 1870: 217; Genetz 1872: 8; Genetz 1885: 132–133; Kujola 1910: 27; Leskinen 1933: 98; Turunen 1950: 154–159; Barantsev 1985: 9–14; Atlas: maps 116, 119, 121, 123, 140; KKMK.)

In the Livvi-Karelian Kondushi dialect, vowel alternation affects also the word-final vowel *i*, which changes into *e* (*d'oge* 'a river', *vel'le* 'a brother', *tul'e* imperf. ind. 3sg of *tulla* 'to come', cf. Livvi-Karelian: *jogi* / *d'ogi*, *velli*, *tuli*) (Virtaranta 1973: 267–275).

The system of short vowels in standard varieties of Karelian does not differ from that of spoken dialects. As the allophones of word-initial front and mid vowels *i* and *e* are not in opposition with each other and they do not distinguish meanings, there is no reason to consider either *i̯* and *i* or *e̯* and *e* to be distinct phonemes. This is why normative grammars do not distinguish the mid vowels [*i̯*] and [*e̯*] (apart from the close illabial vowel *ы* [*i̯*] in Bubrih's and Anisimov's grammars, in which it only occurs in Russian loanwords). Thereby [*i̯*] and [*e̯*] are only allophones of the corresponding front vowels. (See Bubrih 1937: 5; Ahtia 1938: 8; Anisimov 1939: 18–19; Zaikov 1999: 14–15; Markianova 2002: 5; Zaikov 2002: 21; Pyöli 2011: 11; Zaikov 2013: 13–14.)

Both in the common literary language and in standard Viena Karelian, word-final vowels *a* and *ä* are retained, i.e. there is no alternation or elision (*adra* / *atra* 'a plough', *emändä* / *emäntä* 'a matron', *eläjä* 'an inhabitant'). In Ahtia's grammar and in standard Livvi-Karelian the usage of word-final vowels largely corresponds to that in dialects. There are no word-final vowels in inessive-elative and adessive-ablative forms or in polysyllabic nominals with a stem ending in *-la*, *-lä*, *-ma*, *-mä*, *-na*, *-nä*, *-ra*, *-rä*, *-ja*, *-ja* (*muas* ine. sg of *mua* 'land; the ground', *silmäs* ine. sg of *silmy* 'an eye'; *mual* ade. sg, *silmäl* ade. sg; *kattil* 'a cooking pot', *vikkel* 'fast, cunning', *suurim* 'a grain of groats', *ikkun* 'a window', *ketter* 'agile', *opastai* 'a teacher', *kävelii* 'a pedestrian'). Word-final *u*, *y*/*ü* occur in the partitive and essive cases, in disyllabic nominals with a long or closed first syllable, and in polysyllabic nominals (*kieldy* / *kieldü* par. sg of *kieli* 'a tongue; a language'; *kielenny* / *kielennü* ess. sg; *paikku* 'a place', *koiru* 'a dog', *riidu* 'a quarrel'; *emändy* / *emändü* 'a matron'). Word-final *o* and *ö* occur in the 1pl and 2pl verb forms (*keitämmö* pres. ind. 3pl of *keittiä* 'to cook', *keitättö* pres. ind. 2pl). In other cases, i.e. in disyllabic nominals with a short first syllable, the final vowel is retained in the nominative singular (*sana* 'a word', *nenä* 'a nose', *kezä* 'summer', *hyvä* / *hüvä* 'good'). (Ahtia 1938: 22–23; Pyöli 2011: 14–15, 31, 78.)

Neither apocope nor syncope typically occurs in the standard varieties of Karelian. Cases of labialisation correspond to the variant that is most common in the dialects on which the standard variety is based (*köyhä* / *köühä* 'poor', *lyyheh* / *lüühtes* 'a sheaf', *mityš* / *mitus* 'what kind' [Mark, ZaiK, Pyöl], *püzüö* [Mark], *pisyö* 'to stay; to remain' [ZaiK]).

1.5 Long vowels

Distinctive vowel length is a phonematic feature of Finnic languages. Long vowels are in opposition with corresponding short vowels, and vowel length distinguishes meanings. There are two sound durations in the Karelian language: short and long[41]. Long vowels have a longer duration than short vowels. (LÈS; VISK § 18.)

Long vowels were formed in the Late Proto-Finnic period, during which consonants between vowels were deleted (OFUJA: 37). Karelian dialects retain some of these long vowels, while others have turned into diphthongs or short vowels.

Long close vowels (*uu*, *yy*, *ii*) are characteristic to all dialects of Karelian (Table 2) (*tuuli* 'wind', *pyy* 'a hazel grouse', *hiiri* 'a mouse'). They derive from the Finnic long first syllables, or have been formed later as vowels have become more close.

The long first-syllable vowels *ii* and *yy* are mostly retained in Karelian dialects. However, particularly in Karelian Proper enclave dialects and also in some subdialects of Livvi-Karelian and Ludic, the quality of the second diphthong segment has changed as it has lost its stress. This has led to the formation of closing diphthongs ending in a semivowel (*puw* 'a tree', *pyw* 'a hazel grouse' [Bel]; *šuwri* 'large' [Palm]; *hiili* 'coal', *uuzi* 'new', *pyy* 'a hazel grouse' [AnisF]). (See Ojansuu 1918: 94; Anisimov 1948: 6; Beljakov: 1949: 69–70; Turunen 1950: 17, 24, 28; Rjagoev 1987: 27.) Beljakov considers this to be a fairly recent phenomenon in the Tver Karelian dialects of Karelian Proper and a result of the influence of Russian phonology (Beljakov 1949: 71–72). In such cases, it is difficult to differentiate between longs vowels and diphthongs, as noted by several researchers, and for which reason not all dialect descriptions make a distinction between the two.

A semivowel (*w* / *v*) may also occur as the second segment in long vowels in Karelian Proper and Livvi-Karelian dialects as a result of consonant length variation. A semivowel precedes the weak grade variant *v*, whereas the nominative case retains the long vowel. In terms of phonetics, the phenomenon is positionally determined. In Karelian Proper Viena Karelian dialects, it is possible for the weak grade of the geminate *vv* to occur while the long vowel is retained (Vychetaybola: *ruvvat* nom. pl of *ruota* 'a fish bone', Tikhtozero, Voknavolok, Ukhta: *ruuvvat*, Padany: *pyvvöššä* ine. sg of *pyydö* 'a [fish] trap', *kuvvez* 'the sixth' from *kuuzi* 'six', *kuvvain* 'the moon', *pyvvän* pres. ind. 1sg of *pyydeä* 'to hunt, to catch [game or fish]', Livvi-Karelian: *ruvvat*, *uvvet* nom. pl of *uuzi* 'new', Nekkulitsy, Kotkozero: *pyvvän*). (See Genetz 1885: 134; Leskinen 1933: 60–62, 69; Anisimov 1948: 6; Programmy: 37.)

The long vowels *uu* and *yy* are formed in the pres. ind. 3sg of verbs that have stems ending in *u*, *y*. In such cases, it is more common in dialects for a closing diphthong to replace the long vowel than to occur in the first syllable of the word[42] (*kučču* / *kučču* / *kučču* / *kučču* '[he/she] calls').

The long vowel *ii* typically occurs in some dialects in an unstressed syllable and in later syllables in, for example, indicative and conditional imperfect forms, oblique case (any case other than the nominative) plurals of nouns, and superlative adjective forms. The

[41] Some phonological descriptions of Karelian make a distinction between half long and extra-short vowels (see e.g. Leskinen 1933: 42–43; Turunen 1950: 236–247; Barantsev 1975: 42).

[42] For the usage of the semivowel *w* / *v* see chapter 1.6.2. *Closing diphthongs*; for the forming of present indicative 3rd person forms see chapter 8.2 *Personal forms of verbs*.

phenomenon is common in Karelian Proper South Karelian dialects, South Ludic dialects, and their neighbouring southern Livvi-Karelian dialects (Vychetaybola: *otiit* 'you took', Reboly: *ečiin* 'I looked [for smth]', Rugozero: *keriin* 'I sheared', Suystamo: *potkiin* 'I kicked', Tolmachi: *mietiin* 'I pondered', *tuliin* 'I came', Nekkulitsy, Rypushkalitsy: *projiin* 'I went', Ludic: *uberiit* 'you cleaned'). Researchers date these forms to having originated in Late Proto-Finnic when the *i* vowels in both the stem and the imperfect marker have merged. Whether a long vowel or a closing diphthong occurred in this protolanguage remains unsolved. In most Karelian dialects, there is no diphthong or long vowel in this position. The retention of long vowels or diphthongs in some dialects has risen from the attempt to distinguish between inflectional forms that have resulted from the long vowel or diphthong becoming more close, e.g. the present indicative and imperfect of verb stems ending in *i*. (See Nirvi 1932: 66–67; Turunen 1950: 199–219; Rapola 1966: 392–393.)

The Late Proto-Finnic long vowels **aa*, **ää*, **oo*, and **ee* have been replaced in most Karelian dialects with diphthongs (see Turunen 1950: 17; OFUJA: 42, 45; Leskinen 1998: 379). According to Leskinen, at the start of the Migration Period, Old Karelian dialects already had a stable system of diphthongs, in which diphthongs had formed from the original long vowels and from the long vowels that had been formed through closing (**aa* > *oa* > *ua*, **ää* > *eä* [> *iä*], **oo* > *uo*, **öö* > *yö*, **ee* > *ie*) (Leskinen 1998: 379). The description of Livvi-Karelian dialects by Genetz already notes the usage of the long vowels *aa*, *ää*, *oo*, *ee* in the dialects of Tulomozero, Suystamo, and also Salmi (Genetz 1885: 121; see also Kujola 1910: 12; Nirvi 1932: 20; Leskinen 1933: 51–59). As the maps in the dialect atlas of the Karelian language show, long open vowels are characteristic also to the Vidlitsa dialect (Tulomozero, Vidlitsa: *maa* 'a land; ground', *raado* 'work', *pää* 'a head [anat.]', *vääry* 'crooked', *ostaa* 'to buy', *elää* 'to live; to inhabit') (see Atlas: maps 4–7; Programmy: 9).

There are two different hypotheses in Finnic linguistics on the formation history of *aa* and *ää* in the western Livvi-Karelian dialects. The first hypothesis states that they are successors of the corresponding sounds in Late Proto-Finnic, or that they have formed later due to closing (Leskinen 1933: 55, 77–93; Kettunen 1940: 293; Leskinen 1998: 379). Alternatively, the long vowels *aa* and *ää* in Livvi-Karelian may have developed from the diphthongs *oa* / *ue*, *eä* similarly to the secondary long vowels (*oa* > *oo*, *ua* > *aa*, *eä* > ee) in Karelian Proper dialects of Padany and in eastern Rugozero subdialects: *maa*, *raado*, *pee*, *veerä*, *ostaa*, *elee*; Padany: *moo*, *roodo*, *pee*, *veerä*, *ostoo*, *elee*). (See Zaikov 2000: 25; Atlas: maps 4–7; Programmy: 9.)

The long vowels *aa, oo, ee, e̩e̩, ää* and *öö* occur in the Karelian Proper Tikhvin dialect. They have formed late as the result of closing, either due to the monophthongisation of closing diphthongs or as the word-final consonant *n* has turned into a vowel. (See Rjagoev 1977: 10–15.) In addition, *aa*, *oo*, *uu*, *ää*, *öö*, *yy*, *ee*, *ii*, which have formed in stressed syllables before *r* (< *rr*), occur in each subdialect of Tver Karelian. The *r* is the weak grade in the consonant gradation of *rg* and *rd* (Dyorzha: *häärät* nom. pl of *härg* 'a bull; an ox', Ves'yegonsk: *kuuret* nom. pl of *kurgi* 'a crane', *määrät* nom. pl of *märgä* 'wet', Tolmachi: *aarat* nom. pl of *arga* 'shy', *peerat* pres. ind. sg2 of *pergua* 'to hit'). According to Zlobina, vowels in this position lengthened due to the influence of Russian phonology, which caused the geminate to shorten. (Zlobina 1967: 98).

Bubrih's and Anisimov's normative grammars (Table 3) list three syllabic or asyllabic vowel sequences and state that "long syllabic vowels do not exist as a distinct class in the Karelian literary language" (Bubrih 1937: 6). Ahtia's grammar lists the three longs vowels *uu*, *yy*, *ii*, which occur either in the first syllable or later in a word. Contemporary grammars list three close vowels *uu*, *yy*, and *ii*, with good reason, as the semivowel *w* that occurs in several dialects of Karelian is an allophone of *u* and *y* (OFUJA: 29). In standard Livvi-Karelian it is possible to also use the long vowels *aa*, *ee*, *oo* in loanwords. In "Russko-karel'skij slovar'" [Russian-

Karelian dictionary] (2015), which represents standard Viena Karelian, long vowels *aa, ee*, *oo*, *ää*, *öö* are used in loanwords (*baari* 'a bar', *vaalit* 'an election', *kooperatiivi* 'cooperative', *rooli* 'a role', *geeni* 'a gene', *kapteeni* 'a captain', *vääpeli* 'a feldwebel', *likööri* 'liqueur').

1.6 Diphthongs

The diphthongisation of long vowels is a feature that distinguishes Karelian from other Finnic languages. Apparently, a stable diphthong system was already in place in the dialects of Old Karelian by the time of the Karelian mass migration of the 1600s.

A diphthong is a vowel combination that consists of two elements — a syllabic and an asyllabic vowel which form a syllable (LÈS). In Karelian, diphthongs occur in the word stem, and they are also formed during inflectional and derivational processes. Based on their structure, diphthongs are divided into closing diphthongs, ending with *u*, *y*, or *i*, and opening diphthongs, which end with the other vowels.

1.6.1 Opening diphthongs

In Karelian dialects, opening diphthongs that occur in a stressed syllable are successors of the old Finnic first syllables **aa*, **oo*, **ee*, **ää*, **öö*. They are also the successors of long vowels and vowel sequences foreign to Karelian phonology which were formed due to the deletion of consonants between vowels (see OFUJA: 42, 45; Leskinen 1998: 370–371, 379). Researchers of Finno-Ugric languages date the diphthongisation of the Late Proto-Finnic vowels **aa* and **ää* to the 1000s or 1100s, i.e. to the period during which Ingrian, which retained long vowels, developed into a distinct language (Ojansuu 1905: 11; Rapola 1966: 350–352), whereas the diphthongisation of **aa* and **ää* is characteristic also to the Savonian dialects of Finnish (VISK § 19). The diphthongisation of the Late Proto-Finnic **oo*, **öö, *ee* apparently took place earlier, as this phenomenon is characteristic to other Finnic languages as well (Rapola 1966: 355).

The highest number of significant differences between the dialects or subdialects of Karelian exist in their systems of opening diphthongs (Table 4).

Opening diphthongs *uo*, *yö*, *ie (*oo > uo, *öö > yö, *ee > ie)*, which have developed from Finnic long vowels in the first syllable or long vowels that have formed later in the weak grade of radical consonant gradation, are characteristic to all Karelian dialects (*suo* / *šuo*, *vyö*, *pieni*) (see also Turunen 1950: 20, 25, 33). However, in the Dyorzha, Nekkulitsy, and Rypushkalitsy subdialects, these diphthongs have opened in stressed syllables: **uo* > *ua*, **yö* > *yä*, **ie* > *iä* in front vowel words and **ie* > *ia* in back vowel words (Dyorzha: *tuadih* 'they brought', *myä* 'we', *myän* 'I sell', *vyä* 'a belt', *yä* 'a night', *viäl'* 'yet; still', *pialuš* 'a pillow', *viaraš* 'a guest; a stranger'; cf. Tulomozero: *tuodih*, *myö*, *myön*, *vyö*, *yö*, *vielä*, *pieluš*, *vieraš*; Nekkulitsy, Rypushkalitsy: *sua* 'a swamp', *kualta* 'to die', *huano* 'bad, poor', *vyä* 'a belt', *viä* 'yet; still', *hiäno* 'fine, thin', *riasku* 'fresh', cf. Kotkozero: *suo*, *kuolta*, *huono*, *vyö*, *vie*, *hieno*, *riesku*) (see Palmeos 1966: 3; KKVS). It would seem that diphthongs have opened independently and recently in Karelian dialects, as diphthongs *uo*, *yö*, *ie* that have not opened occur in subdialects.

An opposite process, in which diphthongs close, is also typical of unstressed syllables in the Dyorzha dialect. Due to strong vowel reduction, the closing diphthongs *uw*, *yw* in Dyorzha subdialects have originally developed to replace the opening diphthongs *uo*, *ua*, *yö*, or the second segment in opening diphthongs has been completely lost (Dyorzha: *kizuwmah* inf3. ill. of *kizata* 'to play', *ei šuw* 'not allowed', *istuwč* 'sit', *rebuw* par. sg of *reb* 'a fox', *kaluw* par. sg of *kal* 'a fish', cf. Tolmachi: *kizuamah*, *ei šua*, *istuoče*, *rebuo*, *kalua*).

The Finnic first-syllable long vowels **aa*, **ää* are represented in different ways in Karelian dialects: **aa* > *oa* / *ua* / *i̯a* / *oo*; **ää* > *eä* / *iä* / *ee*. The diphthongs *ua*, *iä* are characteristic to most Karelian Proper and Ludic dialects and also to Livvi-Karelian Nekkulitsy, Rypushkalitsy, Salmi, Impilakhti, northern Suoyarvi, and some Kotkozero subdialects (*mua* 'a land, ground', *ruado* / *ruato* 'work [n.]', *piä* 'a head [anat.]', *viärä* / *viäry* / *viär* 'crooked'). Diphthongs *oa*, *eä* occur in the Suomussalmi, Porosozero, Valday, and Suoyarvi dialects; in the Suystamo, Padany, and southern Myandusel'ga subdialects; in the Kotkozero and Syamozero dialects; and most of Livvi-Karelian Vedlozero subdialects (*moa*, *roado*, *peä*, *veärä*). (See Kujola 1910: 18; Ojansuu 1918: 94, 96; Leskinen 1933: 14–15; Turunen 1950: 18–19, 31; Barantsev 1975: 45–46; Atlas: maps 4, 5; Programmy: 9; KKMK.)

A characteristic of the Livvi-Karelian Kondushi dialect, western Ves'yegonsk subdialects, southwestern Tolmachi dialects and some Padany subdialects is the occurence of *i̯a* instead of the long **aa* (*mi̯a*) (see Ojansuu 1918: 95; Atlas: maps 4, 5). The formation of the first segment *i̯* is apparently influenced by Russian phonology. It is possible that the diphthong has formed independently in each dialect, but it is also likely that the phenomenon shares a common root, as there is evidence of Karelian migration into Inner Russia from the former Padany uyezd (see Virtaranta 1961: 42–44). Researchers have noted that Karelian Proper plays a significant role in the Kondushi dialect (see Anttikoski s.a.).

The occurrence of the long vowels *aa*, *ää*, *ee* (*maa*, *ruado*, *pää*, *vääry*, *pee*) is characteristic to the Tulomozero and Vidlitsa dialects and their neighbouring Salmi subdialects. It is thought that they are successors of the corresponding diphthongs in Late Proto-Finnic, or that they have developed secondarily, as is the case of *oo*, *aa* in the Karelian Proper Padany and eastern Rugozero subdialects (*oa* > *oo*, *ua* > *aa*, *eä* > *ee*) (*moo* / *maa*, *raado* / *roodo*, *pee*, *veerä*) (See Kujola 1910: 17; Leskinen 1933: 23; Leskinen 1998: 379; Zaikov 2000: 25; Atlas: maps 4, 5; Programmy 9.) Studies from the early 1900s mention diphthongs *oa* and *eä* in the Tulomozero and Vidlitsa subdialects that have been influenced by their neighbouring dialects (see Leskinen 1933: 23).

The occurrence of *uo*, *ie*, which have developed from *ua*, *iä*, is characteristic to some Central Ludic (Vidany and its neighbouring subdialects) and Livvi-Karelian Nekkulitsy subdialects (*muo*, *ruodo*, *pie*, *viery* / *viere*) (see Turunen 1950: 18, 31–32; Atlas: maps 4, 5; Programmy: 9). In the Ludic Mikhailovskoye subdialects, the back vowel *ia* (*pia*, *viar*) typically occurs instead of the front vowel *iä* (< ää) (Genetz 1872: 7; Programmy: 9).

Diphthongisation of *aa*, *ää* which have developed due to the elision of consonants between vowels both in the first syllable due to radical consonant gradation and also later in a word due to inflection and word formation has, for the most part, occurred in Karelian dialects in a similar manner. Ludic is an exception (apart from South Ludic subdialects, which have been greatly influenced by their neighbouring Livvi-Karelian dialects), as the consonant between vowels has not been deleted and the vowels have not closed.

Significant differences may be observed between dialects in the opening diphthongs that have developed from the vowel sequences *a-a*, *ä-ä*, *u-a*, *y-ä*, *o-a*, *ö-ä*, *i-a*, *i-ä*, *e-a*, *e-ä*. They have resulted from the elision consonants between vowels, which represents the weak grade in the ancient suffixal consonant gradation, e.g. in the singular partitive (noun declension) and 1st infinitive forms (verb conjugation).

Therefore, **o-a* has been replaced practically in all dialects by the diphthong *uo* (*kaivuo* [< **kaivoδa*] par. sg of *kaivo* ' a well', *šanuo* / *sanuo* [< **sanoδa*] 'to say'), which has become open in the Nekkulitsy, Padany, and Rugozero subdialects (*kaivua*, *šanua* / *sanua*). In the Tulomozero and Vidlitsa dialects these have been replaced by *oo*, *ua* (*kaivoo*, *sanua*). Due to contraction resulting from the elision of a consonant between vowels, the 1st infinitive verb form **eläδä* 'to live' occurs in the following forms in Karelian dialects: *eliä* in Karelian Proper enclave dialects, Reboly, Korpisel'kya, Suystamo dialects and northern Myandusel'ga and some

Padany subdialects and also eastern Salmi and Impilahti dialects of Livvi-Karelian; *elyä* in the northern area of Karelian Proper (all the way to the Rugozero subdialect); *eleä* in the Karelian Proper Porosozero, Suomussalmi, Ilomantsi, and Suoyarvi dialects and Padany subdialects and also Vedlozero and Tulomozero subdialects of Livvi-Karelian; *elää* in the Livvi-Karelian Vidlitsa, Tulomozero, and Salmi subdialects; *elöä* in Southern Myandusel'ga subdialects; *elee* in some Padany and Tulomozero subdialects (Ludic: *kaivod*, *sanoda* / *sanuda*, *elädä*). (See Genetz 1880: 171–172; Genetz 1885: 135–136; Ojansuu 1907: 12–16; Nirvi 1932: 47–59; Rjagoev 1987: 33–43; Leskinen 1998: 379–380; Atlas: maps 6–26; KKMK.)[43]

At the ends of singular nominative noun suffixes, which have developed from forms that have contained a consonant between vowels (**pimeä*-), an opening diphthong *ie* occurs in Karelian Proper dialects (*iä* in the Padany subdialect) (*pimie* / *pimiä* 'dark', *abie* / *apie* / *abia* 'sadness'), whereas a closing diphthong *ei* occurs in Livvi-Karelian (*pimei*, *abei*). Ludic dialects retain the consonant (*pimed*, *abid*), except for the western subdialects of South Ludic (*pimei*, *abei*). (See Liljeblad 1931: 26; Atlas: map 12; Programmy: 19–21; KKMK.) The loss of the consonant between vowels from the **harmaδa* word type in Karelian Proper has resulted in the formation of long vowels which have developed into *oa*, *ua*, *i̯a* (*harmoa* / *harmua* / *harmi̯a* / *harmaa* [Padany] 'grey'). The diphthong *ai* typically occurs in Livvi-Karelian (*harmai* / *harmua* [Salmi]) and the consonant *d* in Ludic (*harmad*). (See Kujola 1910: 22–23; Nirvi 1932: 48, 51; Leskinen 1933: 78; Leskinen 1998: 379–380.)

1.6.2 Closing diphthongs

Finnic closing diphthongs, which developed in Late Proto-Finnic as certain consonants turned into vowels (OFUJA: 38), have mostly remained unaffected in Karelian dialects. Closing diphthongs can be divided into two groups: those ending in *i* and those ending in *u* / *y* / *w*.

As the descriptive grammars and other dialect data (Table 5) show, there are basically no differences between diphthongs ending in *i* in a stressed syllable in the dialects of Karelian. These diphthongs are the successors of the corresponding diphthongs in Late Proto-Finnic.

However, it should be noted that the second segment has been deleted from the original diphthong preceding *s* in Livvi-Karelian and Ludic and their neighbouring South Karelian dialects of Border-Karelia (*lašku* / *lašk* / *laške* 'lazy', *mustau* / *mustaa* / *muštau* / *muštab* '[he/she] remembers', cf. Karelian Proper: *laiska*, *muistau* / *muistaa*) (see Genetz 1870: 216; Kujola 1910: 18; Ojansuu 1918: 101, 137; Nirvi 1932: 30; Leskinen 1933: 65–66; Turunen 1950: 35; Leskinen 1998: 381; Atlas: map 36; Programmy: 13; KKMK). Linguists consider this phenomenon to be a Veps substrate (see Ojansuu 1905: 7; Turunen 1950: 35). The deletion of the second segment of a closing diphthong has also spread into cases in which a diphthong ending in *i* originally preceded the suffix *-ne* / *-ni* (*-ze-* / *-se-* / *-že-* < **-ise-*): the *i* is deleted in Karelian Proper but occurs in front of the *s* of a consonant stem (*akkane* / *akkani* 'a wife', *akkazet* / *akkaset* / *akkažet* nom. pl, however: *akkaista* / *akaista* par. sg; *alane* / *alani* 'a mitten', *alazet* / *alaset* / *alažet*; yet Korpisel'kya: *akkaini*, *alaini*). In Ludic, *i* is retained or turned into a long vowel; it is, however, deleted from the consonant stem (*akkaine*, North Ludic, Mikhailovskoye: *akkaane*, *akkaized* / *akkaižed* / *akkaažet*; yet *akašt* / *akašte*; *alaine*, *alaižed* / *alaized*).

Both variants are possible in Livvi-Karelian dialects (*akkaine*, *alaine*, Tulomozero, Salmi, Impilakhti: *akkane*, *alane*; Tulomozero, Vidlitsa, Nekkulitsy, Rypushkalitsy, Kotkozero, Salmi, Impilakhti: *akkazet* / *akkažet*, *alazet* / *alažet*; Vedlozero, Syamozero: *akkaizet*, *alaizet*; yet in each dialect: *akkastu* / *akkaštu*). Variants without the *i* derive from consonant stems ending in

[43] See chapter 3.2 *Stem-final vowel alternations* for further information.

s. (See Genetz 1885: 122; Ojansuu 1907: 20; Kujola 1910: 21; Ojansuu 1918: 13; Leskinen 1933: 14–17, 105–106; Ahtia 1938: 18; Anisimov 1948: 40; Turunen 1950: 174–176; Virtaranta 1972: 20; KKVS; Atlas: maps 38– 39; Programmy: 13–17; KKMK.)

There are some significant differences in the word-final closing diphthongs between the main dialects of Karelian. For example, there are generally speaking no closing diphthongs consisting of a labial vowel and *i* in an unstressed open syllable in Karelian Proper, unlike Livvi-Karelian and northern Ludic dialects.[44] The Karelian Proper subdialects of Myandusel'ga, Porosozero, and Suoyarvi are exceptions to the rule, as a diphthong occurs in them in this position due to the influence of the neighbouring Livvi-Karelian dialects. Triphthongisation and the more recently occurred shortening of the original diphthongs is characteristic to South Ludic dialects, whereas in the North Ludic and Mikhailovskoye subdialects the original diphthongs have developed into monophthongs (Livvi-Karelian, North Ludic, Central Ludic: *kučču*i 'called', *reboi* 'a fox', *kukoi* 'a rooster', *taloi* 'a house', *Kondushi*: *dänyö*, *rjaduo*, Central Ludic, South Ludic: *rebuoi* / *rebuo*, *kukuoi* / *kukuo*, *taluoi* / *taluo*, Mikhailovskoye: *kukuu* / *kukuo*, *rebuu*, *taluu*, North Ludic: *reboo*, *kukoo*, cf. Karelian Proper: *kučču*, *rebo* / *repo*, *kukko*, *talo*). (See Ojansuu 1905: 20–21; Ojansuu 1907: 20–21; Kujola 1910: 20–21; Ojansuu 1918: 101, 137, 143; Leskinen 1933: 100–104; Turunen 1950: 174–177, 188; OFUJA: 43–44; Itkonen 1995: 81–83; Leskinen 1998: 380–381; VISK § 24; Atlas: maps 41, 143; Programmy: 13–15; KKMK.) The Ingrian language and, in part, Savonian dialects of Finnish also typically retain the second segment of the diphthong in this position (see Turunen 1959: 286–293; Laanest 1966: 87).

Linguists date the deletion of *i* in closing diphthongs to the Old Karelian period, as it also occurs in Eastern Finnish dialects (see Ojansuu 1918: 149; OFUJA: 43–44; Leskinen 1998: 380–381; VISK § 24).

In Karelian, closing diphthongs ending in *i* are formed in the second and later syllables during word formation and inflection, e.g. in the oblique plural forms of nouns, superlative forms, and indicative and conditional imperfect forms. In some Karelian dialects, particularly in Karelian Proper enclave dialects, a diphthong *ii* [*ij*] may occur in this position. (Ojansuu 1918: 149–150; Turunen 1950: 199–219).[45]

Closing diphthongs ending in *u*, *y* in the first syllable have remained mostly unchanged in Karelian dialects. However, it is typical of dialect speech that the second segment of the diphthong is replaced by the semivowel *w*, particularly in Karelian Proper enclave dialects (Tolmachi: *hawgi* 'a pike', *lawkka* 'a shop'; Valday: *лawлaw* '[he/she] sings', *l'ewga* 'a jaw') (Beljakov n.d.: 9–10; Palmeos 1962: 9; Barantsev 1975: 43). Linguists have noted that in some lexemes the asyllabic *u*, *y* are phonetically very close to each other, and that in certain cases it is nearly impossible to distinguish between them in some dialects of Karelian. Anisimov gives the following examples of the Livvi-Karelian Kotkozero dialect: *täyzi* / *täuzi* 'full', *keyhy* / *keuhy* 'poor', *keyhen* / *keuhen* 'dandruff' (Anisimov 1948: 7).

Several factors could have contributed to the asyllabic vowels' developing into a semivowel-like consonant in closing diphthongs ending in *u*, *y*. Primarily it may have been influenced by Russian phonology (Beljakov 1949: 71–72). It is also possible that the phenomenon has been caused by internal laws of language development. In describing the phonology of the Valday dialect, Palmeos notes the usage of semivowel-like consonants in closing diphthongs before voiced consonants and that vowels are for the most part retained when they precede geminates and voiceless consonants (Palmeos 1962: 9). It is therefore obvious that the phenomenon is positionally determined. Linguists have found the (asyllabic) semivowel *w* / *v* to occur in Karelian dialects, apart from Ludic, in the stressed syllable of a word and preceding the weak grade *v* (Livvi-Karelian: *ravval*, Vychetaybola, Keret, Suoyarvi:

[44] For word-final diphthongs see also chapter 1.6.1 *Opening diphthongs*.

[45] See chapter 1.5 *Long vowels*.

ravvalla, Tikhtozero, Voknavolok, Ukhta: *rauvvalla* (< *rauta* / *rauda* 'iron'), Myandusel'ga, Padany: *lavvat* (< *lauda* 'a board'), *havvat* (< *hauda* 'a pit'). (See Kujola 1910: 19; Nirvi 1932: 33; Leskinen 1933: 57, 59, 62, 69; Anisimov 1948: 6, 12–13.) It is possible that such weak-grade forms have helped semivowels to spread also into the strong-grade form and other positions in Karelian Proper enclave dialects.

Closing diphthongs in which the second segment is an inflection-induced semivowel, such as that in pres. ind. 3sg forms (*tulow* / *tulov* from *tulla* 'to come; to become'), occur in all main dialects of Karelian.[46] This is explained by the history of the suffix, as it has developed from the Late Proto-Finnic **-βi* (**βi* > *vi* > *v* > *w* > *u* / *y*). (See Zaikov 2000: 50–51.) It is entirely possible that the presence of a semivowel in particular in this position has contributed to semivowels' having later developed to replace asyllabic elements in diphthongs and the long vowels *uu*, *yy* and, in certain dialects, in stressed syllables.

The data show that the Old Finnic closing diphthongs in the first syllable have not changed significantly in Karelian dialects, whereas old long vowels have served as a basis for the formation of opening diphthongs. The number of diphthongs has increased significantly due to vowel elision between consonants in certain positions, such as in consonant gradation, where vowels that in the strong-graded word stem belonged to two different syllables merged into a diphthong in the weak grade, and the syllable boundary between them disappeared. Diphthongs are also often formed on the boundary of a stem and a grammatical marker during inflection.

The following phonetic changes serve as examples of our supplementary data on diphthongs in Karelian. It is typical of most Karelian Proper dialects, especially South Karelian, that the consonant *v* is deleted between vowels when it precedes a labial vowel, which has resulted in the formation of a closing diphthong (Karelian Proper: *auttau* '[he/she] helps', yet Vychetaybola, Ukhta, Poduzhemye, Maslozero, Tolmachi, Tikhvin: *avuttau*; Livvi-Karelian: *avuttau* / *avvuttau*, yet Syamozero, Tulomozero: also *auttau* / *auttaa*; Ludic: *abuttau* / *abuttav*, *abutab*). As the phenomenon occurs in Karelian Proper Tver Karelian dialects, it is possible to date it back to before the Karelian mass migration. However, it has apparently spread more widely into Karelian Proper South Karelian dialects and their neighbouring Ludic subdialects during the separate development phase of these dialects. (See Ojansuu 1918: 78–79; Liljeblad 1931: 59; Turunen 1946: 327–328; Atlas: map 45; Programmy: 35; KKMK.)

It is characteristic to the Ludic Mikhailovskoye and Central and South Ludic dialects that the number of closing diphthongs has increased due to the change [*л*] > *u* which has taken place in front of labials and velars if a back vowel is present in the first syllable of the word. While in Central and South Ludic subdialects vocalisation occurs regardless of whether the syllable is stressed or unstressed, in Mikhailovskoye subdialects the phenomenon affects only those consonants that close a stressed syllable (Mikhailovskoye: *d'aug* 'a leg'; South Ludic: *koume* 'three', *vaugei* 'white', *d'umau* 'God'; Central Ludic: *tauveu* 'during winter', *haug* 'split firewood', cf. North Ludic: *d'alg*, *kolm*, *valged*, *d'umal*, *talvel*, *halg*). The development of this phenomenon in Ludic has been influenced by Veps phonology, in which consonant vocalisation is considered to be a rather old Russian influence. (Tunkelo 1946: 252; Turunen 1950: 47, 307–309.) The syllable-closing consonant is also vocalised in the Livvi-Karelian Kotkozero dialect (Virtaranta 1972: 20); an apparent influence of the neighbouring Ludic subdialects.

There is a great number of diphthongs also in the vocabulary that has been borrowed from Russian. Long vowels are not characteristic to the phonology of Russian. Stressed vowels are, however, pronounced longer than unstressed ones. As Russian borrowings were phonologically adapted to Karelian, stressed vowels got replaced by opening diphthongs

[46] See chapter 8.2 *Personal forms of verbs*.

(*juablukka* / *juablokka* / *joaplukka* / *juablokku* / *joablokku* / *d'aablokku* / *d'uablokk* from the Russian *яблоко* [*jabloko*] 'an apple'; *samovoara* / *samuvoara* / *samovuara* / *samvuara* / *samavuara* / *samvoara* / *samv̨ara* / *samavoaru* /*samuvuaru* / *samvoaru* / *samvuaru* from *самовар* [*samovar*] 'a samovar').

Morphophonological diphthongoids are a characteristic of the phonology of the Tikhvin dialect. A diphthongoid comprises a full vowel and some other element close to a full vowel but with a nasal quality resulting from the reduction of a word-final *n* (*pannaą padaą* 'is put into the cooking pot', *šido keroǫ* 'wrapped into throat', *kuinto hüö oldiį külät ka sodiniečettu* 'somehow they had connected the villages', *lähtiettiį kirikköǫ* 'they went to church', *ka täšš olen šündüų* 'I was born here') (see Rjagoev 1977: 8, 21).

Each standard variety grammar of Karelian mentions the opening diphthongs *uo*, *yö*, *ie* (Table 6). The diphthongs *oa* and *eä* are accepted in Ahtia's grammar, whereas the others opt for *ua* and *iä*. Standard Viena Karelian also features the diphthong *yä*, which occurs after a stressed syllable.

The grammars' systems of closing diphthongs include the following significant differences. In Bubrih's and Anisimov's grammars, unlike in those of the contemporary standard varieties, syllabic and asyllabic consonant clusters (Bubrih 1937: 5) or vowel and semivowel sequences (Anisimov 1939: 20) (*ii*, *uu*, *yy*) count as diphthongs, not as long vowels; however, semivowels are not orthographically indicated in any of the normative grammars. The "*ii* sequence" is not possible after a stressed syllable (*pienillä* ade. pl of *pieni* 'small', *elin* imperf. ind. 1sg of *eliä* 'to live') in the common Karelian literary language.

In the contemporary standard varieties of Karelian, the distribution of diphthongs corresponds to the dialects on which the varieties are based, whereas they have been uniformised in the common literary language (*talo* 'a house', *toista* par. sg of *toine* 'another', *andoi* imperf. ind. 3sg of *andua* 'to give' [Bubr, Anis]; *kuldane* 'golden': *kuldazet* 'golden ones' [Bubr]; *kaidaine* 'narrow': *kaidaizet* 'narrow ones' [Anis]; *reboi* 'a fox', *paistattoa* 'to shine', *kučču̯i* imperf. ind. 3sg of *kučču̯o* 'to call', *keldaine* 'yellow': *keldazet* 'yellow ones' [Aht]; *reboi*, *kučču̯i*, *lašku*, *keldaine* : *keldazen* [Mark]; *repo*, *kučču*, *laiska* 'lazy', *keltaini* : *keltaisen* [ZaiK]).

1.7 Triphthongs

Triphthongs are monosyllabic combinations of three distinct vowels (LÈS). Of the descriptive grammars examined in this study, triphthongs ending with a semivowel are mentioned only by Palmeos (Valday dialect), Rjagoev (used rarely by some informants representing Tikhvin subdialects; also Syamozero dialect), Anisimov (Kotkozero dialect), and Barantsev (South Ludic Svyatozero subdialect) (Table 7).

Triphthongs ending with *u*, *y* (*w*) have developed from long vowels or diphthongs to which the 3rd person suffix **-βi* (**-βi* > *vi* > *v* > *w* > *u*) has originally been added (Kujola 1910: 52; Zaikov 2000: 50–51). Similarly to closing diphthongs, the semivowel *w* occurs in dialects also at the end of triphthongs in the corresponding forms (see also Barantsev 1975: 43).

Karelian language samples show that triphthongs are widely featured in pres. ind. 3sg forms which have a vowel stem ending in a diphthong (monosyllabic verbs with one stem, but in Karelian Proper and Livvi-Karelian also contraction verbs with two stems) (all dialects: *šyöy* / *syöy* / *syöö* / *syöy* / *syöw* '[he/she] eats'; Karelian Proper, Livvi-Karelian: *maguau* / *maguaw* / *magoau* / *magoaw* / *makuau* / *makoau* / *magi̯aw* / *maguaa* '[he/she] sleeps', *rupieu* / *rubieu* / *rubiew* / *rubioo* / *rubio̯u* / *rubieu* / *rubiau* / *rubia̯u* / *rubiou* '[he/she] starts to do smth'; Kestenga: *juou* '[he/she] drinks'; Ukhta: *šuorieu* '[he/she] prepares (himself/herself)'; Vychetaybola: *hyppyäy* '[he/she] jumps'; Tikhtozero: *šoa̯u* '[he/she] gets'; Voknavolok: *vaštoau* '[he/she] meets sb'; Yushkozero: *tuou* '[he/she] brings'; Panozero: *torviou* '[he/she] blows a

shepherd's horn'; Rugozero: *diäw* '[he/she] stays'; Tunguda: *lykkyäy* '[he/she] pushes', *šoa̯u̯* '[he/she] gets'; Padany: *lykkeey*; Shuyezero: *matkuau* '[he/she] travels; Porosozero: *taboau* '[he/she] catches', *soau*; Myandusel'ga: *eruou* '[he/she] differs; gets separated', *kezryäy* '[he/she] spins'; Suystamo: *leikkoa̯u̯* '[he/she] cuts', *juo̯u̯* '[he/she] drinks'; Suoyarvi: *tabou̯u̯*, *juoo*; Syamozero: *viey* '[he/she] takes smth smwh', *lyöy* '[he/she] hits', *juou*, *leikkoau*; Vedlozero, Kondushi: *rodiew* / *rodieu* '[he/she] becomes'; Kondushi: *leikkoao*; Kotkozero: *hyppiäu* '[he/she] jumps'; Rypushkalitsy: *suaw*, *lämbiäu* '[he/she/it] gets warm'; Salmi: *katkieu* '[it] snaps'; North, Central, South Ludic: *vieu̯*, *suau̯*, *lyöy*; Central Ludic: *soau*; Mikhailovskoye: *juob*).[47]

Some phonological descriptions of Karelian dialects note the usage of triphthongs in pres. ind. 3sg forms. Kujola gives the following examples of the Salmi dialect: *sü̯ö̯ü̯* '(he/she) eats', *tuo̯u̯* '(he/she) brings', *vie̯u̯* '(he/she) takes smth smwh', *levie̯ü̯* '(it) spreads' (Kujola 1910: 7). Nirvi identifies the triphthongs *ua̯u̯, iä̯ü̯, ie̯u̯, io̯u̯, iö̯ü̯, uo̯u̯, üö̯ü̯* in the Suystamo dialect (Nirvi 1932: 18). Leskinen has encountered also the triphthongs *ie̯u̯, uo̯u̯, üö̯ü̯* in the dialect materials of Tulomozero (Leskinen 1933: 23). The usage of the asyllabic *u* in both front and back vowel words is typical of the Livvi-Karelian Rypushkalitsy and Nekkulitsy dialects, as well as Ludic dialects, excluding the Mikhailovskoye dialect. (Barantsev 1975: 45; Zaikov 2000: 51).

Researchers of Tver Karelian do not usually distinguish triphthongs (e.g. Beljakov 1949; Manžin 1964). However, triphthongs ending in the semivowel *w* occur in dialects in pres. ind. 3sg: *uaw* / *i̯aw* (Ves'yegonsk), *iäw*, *uow*, *yöw*, *iew*, *yäw* (Dyorzha), *iaw* (Dyorzha) (see Novak 2016: 51–52).

It should be noted that there are no triphthongs in the Tikhvin, Ilomantsi, Vidlitsa, and Tulomozero dialects (Tikhvin: *magua* / *maguah* '[he/she] sleeps'; Ilomantsi: *rubiu* / *rubeu* '[he/she] starts doing smth'; Tulomozero: *syö* '[he/she] eats', *leikkaa* '[he/she] cuts', *kirbua* '[he/she] falls'; Vidlitsa: *rubia* '[he/she] starts doing smth', *saa* '[he/she] gets') (see Zaikov 2000: 54, 57). Triphthongs ending in *i* occur in the Viena Karelian dialects of Karelian Proper in plural obliques and imperf. cond. 3sg forms of words that have a stem ending in a diphtong (Vychetaybola: *tanhuoih* ill. pl of *tanhuo* 'a barn'; Voknavolok: *rupieis* '[he/she] would begin to do smth').

Triphthongisation occurs in some Ludic dialects, i.e. diphthongs ending in an *i* close into triphthongs (**ai* > *uai*, *äi* > *iäi*, *oi* > *uoi*, *ei* > *iei*, *öi* > *yöi*) word-medially and word-finally during plural inflection of monosyllabic words, and also in the imperfect indicative and conditional forms of monosyllabic verbs. This is likely due to contamination (*muaid* / *muoid* par. sg of *mua* 'a land; ground', *suain* / *suoin* imperf. ind. 1sg of *suada* 'to get', *suoiz* pres. cond. 3sg). (See Turunen 1950: 44–45; Itkonen 1995: 81–84.)

Triphthongisation of the word-final *oi*, *öi* is typical of Central and South Ludic dialects (Petrozavodsk and Svyatozero) (Central Ludic: *rebuoi* 'a fox', *kukuoi* 'a rooster', *kačuoi* '[he/she] looked'; South Ludic: *rebuoi*, *sanuoi* '[he/she] said', *nygyöi* 'now'). It is either a possible Russian subdialect influence or the result of the contamination of the diphthongs *oi* ~ *öi* and *uo* ~ *yö*. (See Turunen 1950: 187–189; Itkonen 1995: 86; Atlas: map 41; Programmy: 13–15.)

The common Karelian literary language grammars of the 1930s do not cover the usage of triphthongs (Table 8), although the forms *syöy* '(he/she) eats', *myöy* '(he/she) sells', *salbuau* '(he/she) closes smth' occur in the pres. ind. 3sg of vowel-stem verbs in the conjugation tables. There are no triphthongs in Ahtia's grammar, as it has the pres. ind. 3sg suffix *-v*. Six

[47] Dialect differences between the first segment of triphthongs that have to do with opening diphthong systems in dialects and subdialects have been described in chapter 1.6.1 *Opening diphthongs* and are not included in this chapter.

diphthongs occur in the contemporary standard varieties of Karelian (*uau*, *iäy*, *uou*, *yöy*, *ieu*, *iey*). Standard Viena Karelian also includes the triphthong *yäy* and some triphthongs that end in *i* in conditional forms.

1.8 Vowel harmony

Vowel harmony means that the vowels of a word assimilate to each other. A basic feature of agglutinative languages, it makes a word form whole and distinct. (LÈS; VISK § 15.) Vowel harmony plays an important role in the word inflection and word formation of the Karelian language, i.e. when it comes to choosing between the affix and particle variants that are added to a word. What is known about vowel harmony in most Finnic languages has led linguists to infer that vowel harmony already existed in Late Proto-Finnic (Turunen 1959: 253; OFUJA: 42–43).

Vowel harmony is rather regular in Karelian dialects. It is connected to the timbre of a vowel, as it is based on the phonological marker of vowel frontness or backness. All vowels except for *i*, *e* are harmony vowels (VISK § 15). While a word may only contain either front or back vowels, *i* and *e* are neutral in this respect, as they lack a back vowel pair (*ruveta* / *rubeta* 'to begin to do smth', *hypätä* 'to jump', *keritä* 'to make it in time'). In word inflection and word formation, the choice between a front and a back vowel variant depends on the harmony vowels in the word; however, if *i* and *e* are the only vowels in the stem, the word is inflected as though it were a front vowel word (e.g. pass. ptcp2 *ruvet-tu* / *rubet-tu*, *hypät-ty*, *kerit-ty*). In Karelian dialects, certain derivational affixes (*bohatta-listo* 'the rich', *keyhä-listo* 'the poor', *kala-niekka* 'a fisherman', *heinä-niekka* 'haymaker' [Bel]) and particles (midä-bo, *on-häi*, *hyvä-go* [GenA], *hüvingo*, *lähedgo* [Palm], *midäbo*, *sinägo* [Bar], *näid-go* [RjagL]) do not conform to vowel harmony. (See Genetz 1870: 214; Genetz 1880: 166, Genetz 1885: 122; Kujola 1910: 16, 28; Leskinen 1933: 23–24, 224; Anisimov 1948: 9–10; Beljakov 1949: 12–14; Palmeos 1962: 11–12; Manžin 1964: 4; Rjagoev 1977: 21; Barantsev 1985: 24–25; Rjagoev 1987: 52–54.)

The basic rules of vowel harmony do not always apply to words borrowed from Veps (in Livvi-Karelian and Ludic) or from Russian (in all dialects). There are numerous examples of the lack of vowel harmony in Ludic subdialects, which is considered a Veps influence (North Ludic: *keittada* 'to cook', *hüppida* 'to jump'; Central Ludic: *lämbitada* 'to warm', *keittada*; South Ludic, Mikhailovskoye: *ižändat* 'patrons'; South Ludic: *süöttännu* '(he/she) has fed sb' (see Genetz 1872: 7; Turunen 1950: 103, 122, 224).

Compound nouns do not usually conform to vowel harmony in Karelian. Instead, each component retains its vowels (*kodavävy* 'a married man living on the family farm of his wife', *koirannänni* 'a stye'). However, in some dialects there are cases of progressive vowel harmony, due to which the first component of a compound noun affects vowels in the later component as well (Pyhälly (< *Pühä Il'l'u* 'Elijah's day'), *vieristy* / *vievirstä* (< *vienristu* 'Epiphany'). (See Genetz 1885: 122; Ojansuu 1918: 151.)

Normative Karelian grammars detail vowel harmony rather comprehensively (Bubrih 1937: 14–15; Ahtia 1938: 8; Anisimov 1939: 27–28; Zaikov 1999: 17; Markianova 2002: 10; Zaikov 2002: 24; Pyöli 2011: 13; Zaikov 2013: 35).

2 CONSONANTS

Consonants are sounds that differ from vowels in several ways: the vocal tract is more constricted when producing consonants, they are not as voiced as vowels, they each have a distinct timbre, and they are produced with less airflow (Ahmanova 2007: 436). The most important feature of consonants is an impassable obstruction in the vocal tract, and the causes of noise have an important part in the articulation of consonants (LÈS). As with vowels, there are significant differences in the consonants between dialects and subdialects of Karelian.

The articulatory categorisation of the consonants in Karelian is based on the following features:

1) which active/passive articulator is used to create the obstruction:
– labials (bilabials and dentilabials);
– dentals/alveolars;
– palatals/velars;
– glottals; (VISK § 3)
2) how the obstruction is formed:
– stops, where airflow in the vocal tract is blocked: plosives, where the closure is quickly opened, and affricates, where articulators do not open completely; fricatives, where the obstruction in the vocal tract only makes it narrower; laterals, where airstream proceeds along the sides of the oral cavity; and sounds where airstream proceeds along the centre line of the oral cavity (fricatives, sibilants, semivowels);
– tremulants, where the articulators vibrate;
3) vocal cord activity:
– voiced consonants, where the tightened vocal cords vibrate;
– voiceless consonants, where vocal cords are inactive;
4) position of the soft palate:
– orals, where the soft palate has risen;
– nasals, where the soft palate has lowered;
5) degree of noise-inducing factors:
– obstruents, where free airflow is restricted, which causes air pressure to rise in the vocal tract;
– sonorants (resonants), where there is no turbulent airstream in the vocal tract. (See LÈS, VISK § 3, 4.)

Phonetically, consonants assimilate to vowels, i.e. vowels may modify the acoustic features of consonants. For this reason, consonants are divided into non-palatalised (hard) and palatalised (soft) consonants based on the features of the vowel that follows them.

The consonant system of Karelian dialects as described by the grammars is presented in Table 9 (see Genetz 1880: 166; Kujola 1910: 4–7; Ojansuu 1918: 1–79; Liljeblad 1931; Nirvi 1932: 17; Leskinen 1933: 19; Bubrih 1937: 6–7; Ahtia 1938: 8; Anisimov 1939: 22–24; Anisimov 1948: 44–47; Beljakov 1949: 15–18; Palmeos 1962: 14–16; Manžin 1964: 3–7; Barantsev 1975: 36–49; Rjagoev 1977: 25; Barantsev 1985: 25; Rjagoev 1987: 54; Markianova 2002: 12; Zaikov 2002: 25–26).

The Karelian consonants *p*, *t*, *k*, *s*, *h*, *j*, *m*, *n*, *l*, *r*, *v* are derived from the corresponding consonant phonemes in Late Proto-Finnic. The consonant system of Old Karelian has been greatly influenced by Russian phonology. For example, voiced consonants became voiced in a voiced environment, the affricate *č* came into existence, and consonant palatalisation began to

spread. The influence of Russian has become even stronger, which has resulted in some significant differences between Karelian dialects and their subdialects. (See Kalima 1934; Beljakov 1949: 83–98; Leskinen 1964: 98–99; Leskinen 1998: 357, 378–380.)

The consonants *f* and *c (ts)*, which have spread with loanwords into all contemporary dialects of Karelian (*flaga* / *flagu* / *flag* 'a flag', *cirkuli* 'a pair of compasses'), were not originally typical of Karelian phonology (see also Kujola 1910: 10; Nirvi 1932: 17, 22; Leskinen 1933: 19; Beljakov n.d.: 11; Turunen 1946: 10; Anisimov 1948: 47–48; Rjagoev 1987: 55, 61). From the analysis of the Russian loanwords that occur in Karelian dialects, one can infer that *f* and c were borrowed relatively late and synchronously to the various dialects. Examples show that in the adaptation process of Russian borrowings, the Russian *ц* (*c*) was replaced with *č* (*melličča* / *melličy* / *mellič* 'a mill', Rus. *мельница melnica*), whereas some other consonant replaced *f* (Kalima 1952: 68–71). In the Mikhailovskoye dialect and North Ludic subdialects, the consonant *c* occurs word-medially in native words (except after *i*) (*mecad* 'forests') where there is a *č* in other Karelian dialects (*mečät* / *mečäd*); an obvious influence of Veps phonology on Ludic (Bubrih 1947a: 130).

It should be noted that the table shows some consonant phonemes having several allophones. The articulation of the nasal *n*, for example, directly depends on its phonetic environment. This is why the palatalised *g*, *k* are often preceded by the allophone of the nasal *n* — the velar [*ŋ*] (*he*[*ŋ*]*gi* 'a breath; spirit, soul', *ke*[*ŋ*]*kä* / *ke*[*ŋ*]*gä* / *ke*[*ŋ*]*gy* / *ke*[*ŋ*]*g* 'a shoe, esp. a boot'). Linguists date this phenomenon to Late Proto-Finnic (Genetz 1870: 209; Genetz 1880: 166; Beljakov 1948: 16–17; Palmeos 1962: 14; Rjagoev 1977: 27; see also Liljeblad 1931: 54; Nirvi 1932: 17; Leskinen 1933: 36; Turunen 1946: 272, 295–296). In addition, the vocalisation of *n* into [*ň* / *n̯*], which has a nasal tone preceding *s*, *š*, *z*, *ž*, is characteristic to Karelian dialects, especially the South Karelian dialects of Karelian Proper and their neighbouring Ludic dialects (Genetz 1880: 166; see also Kujola 1910: 39–40; Ojansuu 1918: 67–68; Liljeblad 1931: 51; Turunen 1946: 11, 17, 275; Rjagoev 1977: 19–21). The vocalisation *n* in the cluster **ns* is phonetically regular (*ky*[*ň*]*zi* / *ky*[*ň*]*ži* / *ky*[*ň*]*z* 'a nail [anat.]'). A corresponding phenomenon is typical of Votic, Estonian, and Livonian (see OFUJA: 42.)

The consonant *h* has two allophones in Karelian which differ in their tenseness. The glottal *h* occuring in native words is less tense than the velar *x*, which occurs mainly in loanwords but also word-medially in native words in some dialects (*herneh* 'a pea', *kol*[*x*]*oza* / *kol*[*x*]*ozu* / *kol*[*x*]*oz* 'a kolkhoz') (Genetz 1870: 209; Genetz 1885: 123–124; Beljakov 1948: 15; see also Kujola 1910: 5; Ojansuu 1918: 41–43; Nirvi 1932: 22; Leskinen 1933: 19; Turunen 1946: 10; Anisimov 1948: 47; Barantsev 1975: 41).

In Karelian Proper Viena Karelian dialects, the articulation of the lateral *l* is independent of the quality of the word's vowels. However, in South Karelian dialects and particularly in Livvi-Karelian and Ludic, the difference between the allophones of *l* — i.e. between the front harmonic [*l*] and the back harmonic [*ɹ*] — is quite considerable (*ja*[*ɹ*]*ga* / *d'a*[*ɹ*]*ga* / *ja*[*ɹ*]*gu* / *d'a*[*ɹ*]*gu* / *d'a*[*ɹ*]*g*(*e*) 'a leg', *jälgi* / *dälgi* / *dälg* 'a footstep; a trace') (Genetz 1872: 11, Palmeos 1962: 16; see also Ojansuu 1918: 71; Kujola 1922: 66; Liljeblad 1931: 54; Leskinen 1933: 19; Turunen 1946: 305–307; Anisimov 1948: 45).

Based on the analysis of the dialect materials, word-initial consonants in the original Karelian lexicon are most often *p*, *t* / *t'*, *k*, *č*, *v*, *j* / *d'*, *s* / *š*, *h*, *m*, *n* / *n'*, *l* / *l'*, *r* / *r'*, whereas Russian borrowings can begin with basically any consonant. All consonants may occur as a word-medial consonant. (See Kujola 1910: 9; Liljeblad 1931; Nirvi 1932: 21; Leskinen 1933: 24–25; Turunen 1946; Anisimov 1948: 44–47; Barantsev 1975: 57–63; Barantsev 1985: 26–29; Rjagoev 1987: 58.)

Absolute word-final consonants in Karelian are *h*, *l* / *l'*, *n* / *n'*, *r* / *r'*, *s* / *s'* / *š* / *z* / *ž*, *t* / *d* (*herneh* / *herneh* 'a pea', *aittah* 'into a granary', *sammal* / *šammal* 'moss', *paimen* 'a shepherd', *tulen* 'I come', *päistär* / *päissär* / *päisär* / *päštär* 'a splinter of flax or hemp', *kangas* / *kangaš* / *kankaš* / *kangaz* 'cloth', *kirves* / *kirveš* / *kirvez* 'an axe', *lyhyt* / *lyhyd* 'short', *akat* / *akad* 'wives; old women') (Genetz 1880: 167; Anisimov 1948: 44–47; Rjagoev 1977: 40; Rjagoev 1987: 60; see also Nirvi 1932: 28; Liljeblad 1931; Leskinen 1933: 36). In Ludic dialects, the Dyorzha dialect of Karelian Proper, and Livvi-Karelian, the number of possible consonants in the absolute word-final position of nominative singular forms of polysyllabic nominals with an *a*, *ä* stem increases due to apocope. Geminates and consonant clusters occur as well. Other word-final consonants and consonant clusters may also occur in dialect speech due to irregular phonetic reduction.[48]

During the development of Balto-Finnic languages, certain word-final consonants in various word forms have disappeared, such as the word-final **k* in the nominative form of nouns with an *-ie* stem (*kaste* / *kašše* 'dew' < **kastek*), the **k* in the imp. 2pl suffix (*tule* 'come' < **tulek*), the **n* in nouns ending with *-ne* / *-ni*, or the **n* in the illative ending (*toine* / *toini* 'another' < **toinen*). These changes are relatively old and observable in each Karelian dialect (see OFUJA: 40; Turunen 1946: 95–100, 284–287; Leskinen 1998: 379). Livvi-Karelian and Ludic dialects differ from Karelian Proper dialects due to the elision of word-final *n* in other instances as well (e.g. the personal pronoun *häi* 'he/she', cardinal numerals [*yheksä* 'nine']) (see Ojansuu 1918: 69–70; Turunen 1946: 278–283, 287–289; Atlas: maps 47–50). The grammatical suffix *n* (in genitive, accusative, and 1st person singular) has been retained, as it performs an important grammatical function.

Dialect speech typically features sandhi, i.e. phonetically determined sound changes at morpheme boundaries and word boundaries. Some grammatical descriptions and language samples of Karelian Proper and Livvi-Karelian, for example, mark the voicing of word-final voiceless consonants when the following word begins with a voiced consonant or vowel (Valday: *kaikennägözed grivat* 'all kinds of mushrooms'; Tulomozero: *uniz ozuttih* 'appeared in a dream'; South Ludic: *лabz da mamuoi* 'child and mother') (Genetz 1870: 208; Kujola 1910: 14, 37, 39; Ojansuu 1918: 15; Liljeblad 1931: 33, 38; Leskinen 1933: 37; Turunen 1946: 19, 101; Palmeos 1962: 20). Turunen also mentions an opposite phenomenon in Ludic subdialects, where voiced word-final consonants are voiceless when the following word begins with a voiceless consonant (Mikhailovskoye: *leip paла* 'a piece of bread') (Turunen 1946: 18, 94).

The sound most subject to regressive assimilation is the word-final *n* (Valday: *el lähe* 'I will not go'; South Ludic: *toižeŋ kieran* 'another time'). This phenomenon may be phonetically determined, and it occurs in each Karelian dialect, especially in fast speech. The *n* in compound nouns and open nouns in which the second component begins with *m*, *p*, *b*, *v* has also become subject to assimilation (Voknavolok, Rugozero, Suystamo, Tikhvin, Salmi, Syamozero: *Iivanampäivä* / *Iivanampäivy* 'Midsummer, St John's Day'; Valday, Tolmachi: *tämpiänä* 'today'; Valday: *miwла om paha* 'I feel unwell'; Tulomozero: *om viel* 'there still is'; Salmi: *lämmim päivü* 'a warm day'; North Ludic: *em voi* 'I cannot'; South Ludic: *em maлta* 'I cannot'). The nasal sound *n* remains unaffected only when the following word begins with vowels or *t*, *d*, *n*. (See Genetz 1872: 11–13; Genetz 1885: 130; Ojansuu 1918: 67–68; Leskinen 1933: 37; Turunen 1946: 19, 291–293; Palmeos 1962: 20.)

In South Karelian dialects of Karelian Proper, North Ludic dialects, and some Livvi-Karelian subdialects, *n* may turn into [*ň* / *ŋ*], i.e. a vowel that has a nasal quality (see Genetz 1880: 166; Turunen 1946: 19, 278). In the Salmi dialect, for example, the vocalisation of the nasal *n* occurs word-finally when the following word begins with any other consonant than *k*,

[48] See chapter 1.3 *Apocope*.

g, *t*, *d*, *p*, *b*, *m* (*hevoǫ händü* 'horse tail') (see Kujola 1910: 39–40). In the Tikhvin dialect, the nasal has turned into a nasalised vowel due to reduction, which in turn has created diphtongoids (*ühę kerraą* 'once') (Rjagoev 1977: 19).

In the history of Karelian, various dialect differences have formed due to different developmental paths, the most important ones being the voiced/voiceless opposition, palatalisation, the distribution of close and open sibilants, and the consonants *d'* / *j*.

2.1 Opposition of voiced and voiceless consonants

In most Karelian dialects (South Karelian dialects of Karelian Proper, Livvi-Karelian, and Ludic), consonants that were originally voiceless have become voiced in a voiced environment, i.e. between vowels, between sonorants and vowels, or between *v*, *j* and vowels (*aiga* / *aigu* / *aig*[*e*] 'time', *olgi* 'straw', *kagla* / *kaglu* / *kagl* 'a neck [anat.]', *ongi* / *ong* 'a fishing rod', *pada* 'a cooking pot', *peldo* / *peld* 'a field', *abu* 'help', *lambi* / *lamb* 'a pond'). Voiceless consonants have been retained in a voiceless environment (*itkie* 'to weep') (Genetz 1870: 202–207; Genetz 1872: 10–13; Genetz 1880: 167; Genetz 1885: 124–125; Anisimov 1948: 113–118; Beljakov 1949: 38; Palmeos 1962: 14–16; Atlas: map 72; Programmy: 11; KKMK; see also Kujola 1910: 31–36, 38; Ojansuu 1918: 5–10; Liljeblad 1931: 10–20; Turunen 1946: 60–94, 213–238; Virtaranta 1972: 8; Leskinen 1998: 376–378; Zaikov 2000: 24). Voicing has not affected the word-initial position (*kala* 'a fish') or the single plosives *k*, *t*, *p* when they are the weak grade variant of the corresponding geminate (*akat* from *akka* / *akku* / *akk*[*e*] 'a wife; old woman'). Voiced consonants do not occur in the Viena Karelian dialects of Karelian Proper (*aika*, *olki*, *kakla*, *onki*, *pata*, *pelto*, *apu*, *lampi*) except for some late Russian borrowings. The Ludic Mikhailovskoye dialect has retained some voiceless single plosives resulting from syncope that has deleted vowels that precede voiceless consonants (Mikhailovskoye: *korktad* 'high ones', cf. Livvi-Karelian: *korgiet*; Ludic: *korgedad*) (Turunen 1946: 62).

The border between dialects with voiceless plosives and those with voiced plosives runs from the west from Miinoa between Kostomuksha and Luvozero (in the Rovkula village district) and from the southern side of Yushkozero to the eastern part of Kemi, including Pildozero, which is located more to the north (Genetz 1880: 167; Ojansuu 1918: 6; Atlas: map 72). In most parts of the Panozero, Yushkozero, and Poduzhemye subdialects' area of distribution, voiced plosives occur only in the consonant clusters *ŋg*, *nd*, *ld*, *mb*, whereas in the Yushkozero subdialects they may also sometimes occur between vowels, i.e. the distribution of voiced and voiceless consonants varies between them (Ojansuu 1918: 6; Virtaranta 1972: 9–10; Zaikov 2000: 24). The distribution area of close voiced sibilants *ž*, *z*, *z'* runs along the eastern border of the area in the north and covers the former Yushkozero and Panozero uyezds in their entirety (Genetz 1880: 167; Atlas: map 73). The distribution area of the voiced affricate *dž* covers the Porosozero and Padany dialects in the north.

The voicelessness or voicedness of consonants (see Table 10) has, therefore, been one of the most prominent distinguishing features between the Viena Karelian and South Karelian dialects of Karelian Proper. However, it is also a basis on which to separate the group of transitional dialects that lie between them (Panozero, Yushkozero, and Poduzhemye dialects) (Leskinen 1998: 376–377). The considerable influence of Finnish in the western part of the area explains why the distribution area of voiceless consonants is wider in the west than in the east.

Phonological descriptions of Karelian dialects provide examples of the voicedness and voicelessness of consonants both in the word-initial and word-medial positions in different phonetic environments: *VCV* / *CC*.

In the developmental history of voiced consonants the voicing of the plosives *k*, *t*, *p* in a voiced environment has occurred during the Old Karelian period, as evidenced by the place names mentioned in the scribe books of the Votic Fifth from the 1500s and 1600s which include voiced consonants (see Kalima 1934: 254–256; Tunkelo 1938: 21; Leskinen 1964: 98). The voiceless consonants in the Karelian Proper Viena Karelian dialects may, therefore, either be successors of the Old Karelian voiceless consonants (see Virtaranta 1972: 8), or its voiced consonants may have disappeared due to late influence of Finnish phonology (see e.g. Genetz 1877: 31; Ojansuu 1918: 7). Some linguists also date the Russian-influenced formation of the voiced close *z*, *z'* and the open sibilant *ž* to the Old Karelian period (Kalima 1934: 255), while others consider it a later development (see Virtaranta 1984: 260–261).

As time went on, it became possible for voiced consonants to occur in the word-initial position as well, particularly in Russian loans and onomatopoeic words. However, voicing has also affected word-initial consonants of some native lexemes, such as *buola / buolu / buol(e)* 'lingonberry', *garbalo / garbol / garbal* 'cranberry' (see Kujola 1910: 30; Ojansuu 1918: 3–4; Liljeblad 1931: 8–10; Turunen 1946: 48–52; Anisimov 1948: 116; Leskinen 1998: 378). According to Ojansuu, the voicing of word-initial consonants in native words originally occurred in compound nouns, in which the word was the second component, and the voicing was affected by the voiced consonants in the first component of the compound noun (Ojansuu 1918: 4). Turunen explains the voicing in such cases as being the evident influence of Russian phonology on plosives. They have occurred in a voiced environment or in a position in which they have been affected by word-medial voiced consonants. He also notes that in certain words, voicing originates in child speech. (Turunen 1946: 48–52).

2.2 Distribution of close and open sibilants (*s* / *š*, *z* / *ž*)

The distribution of close and open sibilants *s* / *š*, *z* / *ž* is one of the most prominent features of Karelian dialect speech (see Atlas: map 74–99). The occurrence of certain consonants in Karelian dialects is connected to several factors that are interdependent in some dialects and independent in others. These include the position of the sound, the quality of the word's vowels, and the immediate phonetic environment. Not all descriptive grammars mention the preconditions for the usage of close and open sibilants, but the wide array of examples on the usage of individual phonemes makes it possible to construct a basic picture of the phenomenon (see Table 11).

The descriptive grammar and Atlas data (maps 74–99) show that the usage of close and open sibilants is not uniform between the Karelian dialects and subdialects. This phenomenon has thus warranted research.[49]

Some basic positions in which there are differences between open and close sibilants in Karelian dialect and subdialect groups may be identified. Open sibilants occur mainly:

1) after *i* (**i*):

– in front vowel words in Livvi-Karelian, Ludic, and Border Karelian dialects of Karelian Proper (Suoyarvi, Korpisel'kya, Ilomantsi, Suystamo) and southern dialects of Myandusel'ga (*išköy* 'he/she/it strikes')

– in back vowel words after a diphthong — or a historical diphthong — that ends with *i* in Livvi-Karelian and Ludic and the dialects of Suoyarvi, Suystamo, Padany, and Myandusel'ga, and also the eastern subdialects of Ves'yegonsk; in some cases also in the transitional dialects of Karelian Proper (*kiškou* 'pulls', *laiška* / *lašku* / *laške* / *lašk* 'lazy', *aiža* / *aižu* / *aiže* / *aiž* 'a shaft, a pole')

[49] See Bubrih 1947a; Virtaranta 1946; Virtaranta 1984; Zaikov 2014.

– preceding the dental *t* and the front vowel *i* and in the absolute word end in Ludic, Livvi-Karelian Nekkulitsy and Rypushkalitsy dialects, southern Myandusel'ga and western Padany dialects of Karelian Proper, Livvi-Karelian Salmi and Impilahti dialects, and even word-medially in the eastern subdialects of the Karelian Proper Ves'yegonsk enclave dialect (*ištuu* '[he/she/it] sits', *reiži* 'a thigh', *huoviš* 'inexpensive')

2) before *i:*

– word-initially regardless of the quality of the vowels in the word in Karelian Proper Viena Karelian dialects (excluding Vychetaybola) and their neighbouring Yushkozero subdialects, South Karelian dialects (excluding the Border Karelian Suoyarvi, Korpisel'kya, Ilomantsi, and Suystamo dialects of Karelian Proper, Ves'yegonsk and Padany dialects and their neighbouring Rugozero and Myandusel'ga dialects and some western subdialects of Porosozero) and northern dialects of Ludic (*šilmä* / *šilm* 'an eye')

– word-medially in back vowel words in Karelian Proper and northern Ludic dialects following a labial vowel (*vuoši* / *vuoži* / *vuož* 'a year', *uuži* / *uuši* / *uuž* 'new') and following consonants (excluding the Padany subdialect and its neighbouring Rugozero and Myandusel'ga subdialects, and some western subdialects of Porosozero) (*lapši* / *lapš* 'a child', *varži* / *varši* 'a stem') and following illabial vowels in Livvi-Karelian, Ludic, and the Border Karelian subdialects of Karelian Proper and southern Karelian Proper subdialects of Myandusel'ga and Porosozero (*kaži* 'a cat')

– word-medially in front vowel words in the southern Porosozero and Myandusel'ga subdialects of Karelian Proper (following *k* in the Reboly subdialect and western Rugozero subdialects) and northern subdialects of Ludic (*käži* / *käž* 'a hand, an arm', *ykši* / *ykš* 'one' and following the nasal *n* in Viena and transitional dialects of Karelian Proper (excluding eastern Ves'yegonsk subdialects) (*kynži* / *kynši* 'a nail [anat.], cf. Padany, Myandusel'ga, Porosozero, North and Central Ludic: *kyndži*)

3) in front vowel words (not preceding or following *i*):

– word-initial *š* in Viena and transitional dialects of Karelian Proper (excluding Vychetaybola and Panozero dialects), South Karelian dialects (excluding the Border Karelian dialects of Karelian Proper, Porosozero and Padany dialects and their neighbouring Rugozero and Myandusel'ga dialects and eastern Ves'yegonsk subdialects) and North and Central Ludic (*šeppä* / *šepp* 'a blacksmith', *šärgi* 'a perch')

– word-medially in Karelian Proper (excluding the Border Karelian dialects of Karelian Proper, Porosozero and Myandusel'ga dialects, southern Padany and eastern Ves'yegonsk subdialects) (*kešä* / *kežä* 'summer')

4) in back vowel words (not preceding or following *i*):

– word-initial *š* in Karelian Proper (excluding the Border Karelian dialects of Karelian Proper, Porosozero and Myandusel'ga dialects, southern Padany and some Ves'yegonsk subdialects) (*šada* 'a hundred')

– word-medially nearly the same (*vaša* / *važa* 'a calf')

– *š* occurs preceding the dental *t* in Karelian Proper (excluding the Padany, Porosozero, and Myandusel'ga dialects, southern Rugozero and eastern Ves'yegonsk subdialects) and northern subdialects of Livvi-Karelian (Syamozero and Vedlozero subdialects) (*aštie* 'a vessel', cf. Porosozero, Myandusel'ga, South and Central Ludic: *aščie* / *aščad*)

5) in the absolute word-end, although not following *i*, regardless of the frontness or backness of the vowels in the word in Karelian Proper (excluding the Border Karelian dialects of Karelian Proper, Porosozero and Myandusel'ga dialects, and southern Padany subdialects) (*vieraš* 'a guest; a stranger'). This applies also to ordinal numerals, although in this case the distribution area of open sibilants covers also the Ludic main dialect (*nelläš* / *nelläž* / *nelländž* 'the fourth').

In other cases, close sibilants are used for the most part in Karelian. (See Genetz 1870: 209–211; Genetz 1872: 12–13; Genetz 1885: 123; Kujola 1910: 38–39; Ojansuu 1918: 36–40; Liljeblad 1931: 36–39; Turunen 1946: 213–238; Bubrih 1947b: 131–151; Anisimov 1948: 99–113; Beljakov 1949: 40–41; Manžin 1964: 5–6; Barantsev 1975: 71; Rjagoev 1977: 26–32; Atlas: maps 74–99; Programmy: 57–87; KKMK.)

It is worth noting the usage of close and open sibilants in nouns ending with **-inen* and in the conditional mood. In Livvi-Karelian and Ludic, the elision of *i* in an even syllable should prevent *z* from changing its quality (*kuldazet* 'the golden ones', *andazin* 'I would give') whereas *i* in an odd syllable ought to create an open sibilant (*toižet* 'the other ones', *joižin* 'I would drink'). In practise, the phenomenon occurs in the following way: in Livvi-Karelian dialects (excluding the Nekkulitsy and Rypushkalitsy dialects) and South Ludic the close voiced sibilant *z* has prevailed, whereas in most Ludic subdialects *ž* occurs. In Southern Livvi-Karelian dialects the two variants have mixed. In most dialects of Karelian Proper the elision of *i* in certain positions has occurred later than the changes that its formation has caused, which is why *z* / *s* occurs in these dialects regardless of whether they are preceded by *i*. The influence of Livvi-Karelian and Ludic can be seen in the Southern Karelian subdialect groups of Karelian Proper. (See Bubrih 1947b: 134–147; Turunen 1946: 228; Virtaranta 1984: 5–39.)[50]

The distribution of close and open sibilants in Karelian dialects is affected by the position of the sibilant in the word, the frontness or backness of the vowels in the word, *i* in the preceding or following position, the deletion of *i* that has taken place at different times, and the consonants of the word (for further details see Bubrih 1947b: 131–151). Linguists have identified three different groups of Karelian dialects based on the analysis of the usage of close and open sibilants:

1) Livvi-Karelian and Ludic main dialects, the Karelian Proper dialects of Border Karelia, and the southern subdialects of Myandusel'ga and Porosozero, which are characterised by the frequent usage of close sibilants when open sibilants replace the palatalised *s'*, *z'* (**s*, **z* > *s*, *z*; **s'*, **z'* > *š*, *ž*) most often after *i*;

2) the Karelian Proper transitional dialects, which are represented by the southern Padany subdialects (Petel'navolok, Karelian Masel'ga, Sayezero, Jevgora, etc.) and in which one may observe the mixing of open and close sibilants due to the cross-influence of Viena and South Karelian dialects of Karelian Proper; however, close sibilants are used for the most part;

3) Karelian Proper dialects (excluding the Border Karelian dialects of Karelian Proper), and southern Padany, Porosozero, and Myandusel'ga subdialects, which are characterised by the frequent use of word-initial, word-medial, and word-final open sibilants regardless of the frontness or backness of the vowels, whereas close sibilants are the successors of the palatalised sibilants *s'*, *z'* (**s*, **z* > *š*, *ž*; **s'*, *z'* > *s*, *z*) mostly preceding and following *i*. (Kujola 1922: 66; Bubrih 1947b: 131–151; Zaikov 2014: 15; Atlas: maps 74–99; Leskinen 1998: 381.)

It it possible to identify subgroups in groups 1 and 3 based on the distribution of close and open sibilants in certain phonetic positions. In the first group, a subgroup is formed by, for example, the subdialects of North Ludic with their neighbouring Myandusel'ga subdialects (an obvious influence of North Ludic dialects), and in the third group the southern Livvi-Karelian subdialects together with Ludic dialects (influence of the Veps language), the transitional dialects of Karelian Proper, and the subgroup of northern Padany subdialects of their neighbouring Rugozero subdialects. In individual regions the phenomenon differs from one subdialect to the other.

Among the enclave dialects of Karelian Proper, the group of eastern Ves'yegonsk subdialects stands out. The choice of sibilant depends primarily on the frontness or backness of the vowels in the word, while in other Inner Russian Karelian dialects, the consonants *š* and

[50] For other instances of levelling see Bubrih 1947b: 135–139.

ž are used in all positions regardless of the frontness or backness of the words apart from the position following *i* (Novak 2016: 65–70; Atlas: maps 74–99). Differences in the use of *s* / *š*, *z* / *ž* within dialects are typical of the Tikhvin subdialects (see Rjagoev 1977: 31).

Thus, in analysing the distribution of close and open sibilants in Karelian dialect speech it is important to take into consideration the assimilatory processes in the language, analogy, and the influence of neighbouring dialects and languages (particularly Veps), not to mention the exceptions that often occur in loanwords and onomatopoeic words (see Turunen 1946: 215–216; Bubrih 1947b: 135–157).

Such a varied representation of close and open sibilants in Karelian dialects may be explained with language history. According to Virtaranta, open sibilants were not characteristic to Old Karelian phonology, as they are missing from the Savonian dialects of Finnish and from the Ingrian language (see Virtaranta 1984: 260). However, it is also possible that open sibilants arrived into Old Karelian from Russian toward the end of Old Karelian's development, as evidenced by contemporary scribe books containing toponyms that include the consonants *з* (*z*), *ж* (*ž*), *ш* (*š*) (see Kalima 1934: 255–256). At any rate, the consonants *s*, *z* have in certain positions turned into *š*, *ž*. In the present-day Karelian dialects, the phenomenon has evolved in various ways. According to Bubrih, "at one time, the distribution of close and open sibilants was divided between two areas, the northern and the southern one; besides, the border between them, one has to think, on the one hand followed closely the common border of Livvi-Karelian and Ludic, and, on the other hand, the border of Karelian Proper". Due to historical development, the southern area has divided into two subareas, and their opposition is due to that of the Livvi-Karelian and Ludic main dialects. In the northern area, one may identify three waves of further development (Bubrih 1947b: 157–158). Therefore, the historical formation of the present-day Karelian main dialects and the dialects of Russian Karelia explains, to an extent, such a varied representation of close and open sibilants.

With respect to open sibilants, one should note that in Karelian Proper dialects (excluding the Border Karelian dialects of Karelian Proper, Porosozero dialect, and the southern Myandusel'ga and Reboly subdialects) the word-initial affricate *č* (< **s*) is in some lexemes replaced by the open sibilant *š* (*čoma* > *šoma* 'beautiful') (Ojansuu 1918: 47; Atlas: map 100).

2.3 Palatalisation of consonants

Palatalisation is the softening of consonants due to the middle part of the tongue rising toward the hard palate and thus causing a secondary articulation (LÉS) or changes in basic articulation due to the influence of front vowels or *j*. The vowels in a word have a significant effect on its consonant phonemes. Therefore, as the consonants *d*, *l*, *n*, *r*, *s*, *z*, *t* get into contact with the vowel *i*, and in some dialects also other front vowels (*ä*, *ö*, *y*), they get palatalised in Karelian. The correlation between palatalisation/non-palatalisation is one of the most important phonetic features of Karelian dialects (see Table 12).

As shown by the descriptive grammar data, the palatalisation of consonants in Karelian dialect speech differs in extent and width of distribution. It depends on the meeting of certain criteria individually and in conjunction.

Palatalisation concerns, in the appropriate environment, all consonants of the Karelian language, although to varying degrees. Strong palatalisation is typical only to the dentals and alveolars *d*, *l*, *n*, *r*, *s*, *z*, *t*. Most grammatical descriptions of Karelian are concerned with this fact in particular. All in all, of the previously mentioned consonants, the labiodental tremulant *r* and close sibilants *s*, *z*, which in some dialects have turned into open sibilants due to

palatalisation[51], are the least palatalised sounds in native Karelian words. Palatalisation as extra-articulation is stronger in some dialects and weaker in others and is characteristic to the consonants *p*, *b*, *k*, *g*, *m*, and sometimes also *h*, *v*. In late Russian borrowings palatalisation may affect all consonants. (See also Kujola 1910: 15; Ojansuu 1918: 84; Liljeblad 1931: 6; Nirvi 1932: 2; Leskinen 1933: 18, 22; Turunen 1946: 332, 335; Anisimov 1948: 118–119; Barantsev 1975: 36, 48–49.) Palatalisation has spread to affect single consonants as well as geminates and consonant clusters.

The position of the palatalisation is dictated by the immediate environment. Palatalisation may occur in the structure of the word both as secondary articulation, in which case it only depends on the phonetic position of the consonant (with front vowels or *j*), and as a distinguishing feature in cases in which it does not depend on the position of the consonant (preceding back vowels or in the absolute word-end) (see LÈS), e.g. *villa* / *villu* 'wool' — *vil'l'a* / *vil'l'u* 'grain'.

Palatalised consonants occur word-initially, word-medially, and word-finally. The palatalisation of dentals and alveolars in native Karelian words may be analysed with the following outline that has been drawn on the basis of the descriptive grammars of Karelian (see Genetz 1870: 211–212; Genetz 1872: 13–14; Genetz 1885: 123; Anisimov 1948: 118–128; Beljakov 1949: 29–37; Palmeos 1962: 17–19; Rjagoev 1977: 25–28). In accordance with the preconditions that govern the palatalisation of consonants, palatalisation is generally divided into progressive and regressive palatalisation, depending on whether palatalisation is caused by a preceding or a following vowel, respectively.

Word-initial regressive palatalisation

Word-initial *l*, *n*, *t* are palatalised in Karelian most often when they precede *i* (*t'ie* 'a road', *n'ivel* 'a joint', *l'iha* 'meat'). Palatalisation is also caused by other front vowels, less often by *e*. The sounds most subject to palatalisation are the dentals and alveolars *d*, *l*, *n*, *r*, *s*, *z*, *t* in the South Karelian dialects of Karelian Proper and their neighbouring Livvi-Karelian and northern Ludic subdialects (*n'enä* 'a nose', *l'ehmä* / *l'ehmy* / *l'ehme* 'a cow'). Palatalisation in this position varies in the Border Karelian dialects of Karelian Proper, which may have resulted from the influence of either Livvi-Karelian or Finnish. Palatalisation has correspondingly also spread to affect the close sibilant *s* in those Karelian dialects in which it has not yet turned into the open sibilant *š*. Less often and mostly in the South Karelian dialects of Karelian Proper (excluding the Border Karelian dialects of Karelian Proper) and Ludic dialects, palatalisation also affects word-initial *r* (*r'ihma* / *r'ihm*[*e*] 'a thread', *r'egi* 'a sleigh'). (See also Kujola 1910: 41; Ojansuu 1918: 80; Liljeblad 1931: 8, 50, 55; Nirvi 1932: 21; Leskinen 1933: 24; Turunen 1946: 44, 213, 265, 302–303, 313, 332; Anisimov 1948: 119–127; Barantsev 1975: 57–63; Novak 2016: 79–80; Atlas: maps 102, 103, 105, 107, 110; Programmy: 89–117; KKMK.)

The palatalisation of word-initial nasal *n* before back vowels (*n'apa* / *n'aba* 'a navel', *n'okka* / *n'okku* / *n'okk*[*e*] 'a beak') is typical of all three main dialects of Karelian (Ojansuu 1918: 80–84; Liljeblad 1931: 50; Anisimov 1948: 126). Turunen considers this to be a Russian influence, noting that originally the phenomenon may have risen in onomatopoeic words and child speech, from which it has spread into a wider use (Turunen 1946: 266). A similar phenomenon in the Veps language seems to point to their sharing a common root.

[51] See chapter 2.2 *Distribution of close and open sibilants (s / š, z / ž)*.

Word-medial palatalisation

The earliest and the most widely spread type of palatalisation is regressive. Word-medially the Karelian dentals and alveolars *d*, *l*, *n*, *r*, *s*, *z*, *t* (most often *l*, *n*, *z*, less often *r*, *s*) most commonly palatalise before *i* (*kiel'i* 'a tongue; a language' *pien'i* 'small in size', *šuuri* / *šuur'i* / *suuri* / *suur'i* 'great in size'), but before some other front vowels as well. The vowel *i* may also affect *d*, *l*, *n*, *r*, *s*, *z*, *t* from further away, i.e. the first segment of a consonant cluster is palatalised when the second segment is exposed to any degree of palatalisation (*kyl'mä* / *kyl'my* / *kyl'm* 'cold'). Such cases of palatalisation occur less often in the Livvi-Karelian dialects and the Viena and Border Karelian dialects of Karelian Proper. In the Ludic dialects and the Dyorzha dialect of Karelian Proper, palatalisation is unaffected by the deletion of the word-final *i* by apocope; instead, it stands out as a distinguishing feature (*kiel'*, *pien'*, *šuur'* / *suur'*). (See also Kujola 1910: 15, 41; Ojansuu 1918: 84–85; Liljeblad 1931: 51–55, 16, 36; Leskinen 1933: 21; Turunen 1946: 45, 73, 222, 268–269, 271, 303, 314–315; Anisimov 1948: 119, 123, 125; Barantsev 1975: 57–63, 72; Novak 2016: 80–87.)

With respect to the palatalisation of the dentals *d*, *t*, one must consider the rule according to which palatalisation does not occur when *i* is an inflectional affix rather than part of the word stem. In some dialects, this rule only applies to back vowel lexemes (*annettih* 'they gave' but *el'et't'ih* 'they lived'), whereas in other dialects it applies to front vowel lexemes as well (*annettih*, *elettih* / *el'ettih*). In other cases *d*, *t*, are palatalised rather consistently as they precede *i* (*kot'i* / *kod'i* 'a home; a house') and also other front vowels. In the Karelian Proper enclave dialects and Livvi-Karelian dialects, *d* that precedes *i* is not palatalised after sonorants (*kondie* 'a bear') or a diphthong ending with *u* (*taudi* 'tauti'). In the Livvi-Karelian dialects, the phenomenon has spread to affect also *t* as it follows *h*, *n* (*lahti* 'a gulf', *rynti* 'a ragamuffin'). (See Beljakov 1948: 29–37; Anisimov 1948: 120–121.)

Regressive palatalisation before *i* is far stronger than before other front vowels, *e* in particular (*kielet* / *kiel'et* 'tongues; languages').

Palatalisation that is not based on the phonetic position of the sound in its current environment, i.e. palatalised geminates preceding back vowels, has become a distinctive feature in Karelian. However, original word forms reveal that such cases have to do with regressive palatalisation before *j* (*pal'l'aš* / *pal'l'as* / *pal'l'az* < **pal'jas* 'bare'; *min'n'a* < **min'ja* 'a daughter-in-law'). (See Kujola 1910: 42; Liljeblad 1931: 55; Zaitseva 2016: 83.)

Progressive palatalisation of word-initial *d*, *l*, *n*, *r*, *s*, *z*, *t* after short or long *i* and after a diphthong ending with *i* occurs mostly in the South Karelian dialects of Karelian Proper and northern Ludic subdialects in front vowel words (*n'iit't'ä-* / *n'iittä-* 'to reap', *keit't'ä-* / *keittä-* 'to cook') (see Ojansuu 1918: 85; Turunen 1946: 336).

In this position, one should note the derivational affix whose original form is **-inen* and in which the palatalised nasal *n* occurs in Karelian Proper (excluding the Porosozero and Myandusel'ga dialects and southern Padany and eastern Ves'yegonsk subdialects) and in northern Ludic dialects regardless of the frontness or backness of the word stem vowels, even when the preceding *i* has been deleted (*kuldan'e* / *kuldan'i* / *kultain'i* 'golden') in instances where there is no palatalisation in other dialects (*kuldane* / *kuldaine*) (Kujola 1910: 42; Liljeblad 1931: 52; Turunen 1946: 270; Atlas: map 106; KKMK.)

Word-final palatalisation

The word-final lateral *l* may occur also in its palatalised form in Karelian, mostly in the South Karelian dialects of Karelian Proper (excluding the Border Karelian dialects) and their neighbouring northern Ludic subdialects (*pet'el'* / *petel* / *pet'kel'* / *petkel* 'a pestle'). In the South Karelian enclave dialects, the word-final *s* and *r* are also subject to palatalisation (*tytär'* / *tytär*

'a daughter', *kal'l'is'* / *kallis* 'valuable; important'). This is due to progressive palatalisation, or earlier regressive palatalisation that has become non-positional due to the deletion of the word-final vowel *i*. In dialects to which word-initial vowel deletion is typical the number of palatalised consonant variants is significantly greater than in other dialects. (See Turunen 1946: 304, 317; Barantsev 1975: 57–63; Novak 2016: 87–88; Atlas: map 109.)

One should also note that in all Karelian dialects, a word-final consonant which in the speech stream precedes a word-initial front vowel or a palatalised consonant of the following word may become palatalised (see Ojansuu 1918: 86; Turunen 1946: 279; KKVS).

In studying consonant palatalisation it is not sufficient to only take note of the consonant's position and its immediate environment. As palatalisation is not always regular, it is important to also analyse the history of the word form (variation, contractions), its grammatical form, and the influence of its neighbouring dialects and languages. All in all, it may be concluded that there is less palatalisation in Livvi-Karelian, South Ludic, the Viena Karelian dialects of Karelian Proper, and the Border Karelian dialects, with lexemes retaining their historical form, whereas palatalisation occurs more widely in the South Karelian dialects of Karelian Proper, northern dialects of Ludic (North and Central Ludic) and in the Ludic Mikhailovskoye dialect. The sounds most subject to palatalisation are the dentals and alveolars *d*, *l*, *n*, *r*, *s*, *z*, *t* preceding *i*, less commonly preceding other front vowels and *e*.

With respect to the historical development of this phonological phenomenon, it can be said that consonant palatalisation is typical basically to all Finnic languages, but it is most widely spread in Karelian and Veps. Researchers of the phonologies of Finnic languages consider the formation of palatalisation to be connected to the velarisation of front vowels (i.e. the loss of frontness) (e.g. Tunkelo 1946: 503–504). They date the phenomenon's formation to the Old Karelian period, as it is typical also to the Eastern Finnish dialects. During this period, the dentals and alveolars *d*, *l*, *n*, *r*, *s*, *z*, *t* palatalised in front of *i* and *j* due to the influence of Russian. Thus, palatalisation is most regular and common in this position. (See Ojansuu 1918: 84; Turunen 1946: 337; Beljakov 1948: 39–37; Itkonen 1968: 100–101; Leskinen 1998: 370–371.) Later, during the period when distinct Karelian dialects were already forming, palatalisation spread into other positions, on the one hand: the position following *i*, word-initial consonants, geminates and consonant clusters containing *d*, *l*, *n*, *r*, *s*, *z*, *t*, but also consonants preceding other front vowels. On the other hand, palatalisation was retained after the deletion of *i*. (Leskinen 1963: 298–299; Leskinen 1998: 379.) The bilingualism of Karelians and the great number of Russian borrowings in their language apparently contributed to palatalisation's becoming stronger and its spreading more widely in the east (especially in the Inner Russian enclave dialects) (see e.g. Ojansuu 1918: 79). However, the considerable influence of Finnish in the north and west conversely retarded the phenomenon's development. One should not forget the strong influence of Veps on the Ludic dialects, as palatalisation in Veps is greatly varied. These processes and inter-dialect influences resulted in the significant differences in the distribution of palatalised and non-palatalised consonants between individual Karelian dialects and subdialects.

2.4 Distribution of *j* / *d'*

The word-initial consonants *j* / *d'* are distributed in dialects as follows: the semivowel *j* (*jalga* / *jalgu* 'a foot; a leg', *juuri* / 'a root') is retained in the Karelian Proper Viena Karelian dialects, transitional dialects, South Karelian Suoyarvi, Korpisel'kya and Suystamo dialects and Inner Russian enclave dialects, and the Livvi-Karelian dialects of Impilakhti, Kotkozero, Nekkulitsy, and Rypushkalitsy. The palatalised dental *d'* (*d'alga* / *d'algu* / *d'alg, d'uuri*) occurs in Ludic, the Karelian Proper Tunguda, Reboly, Padany, Porosozero, Myandusel'ga, and Ilomantsi dialects,

and also in the Livvi-Karelian Syamozero dialect. In other dialects the distribution varies from one subdialect to the other. The word-medial case in which *j* turns into *d'* after *d'*, *r*, *h* does not differ significantly from the word-initial one. (See Genetz 1872: 11; Genetz 1880: 167; Genetz 1885: 122; Ojansuu 1905: 23; Ahtia 1938: 10; Kujola 1910: 28–29; Liljeblad 1931: 57; Turunen 1946: 318–325; Rjagoev 1987: 55; Atlas: maps 42–44: Programmy: 23; KKMK.)

The development of *j* > *d'* is considered to be fairly recent. Ojansuu connects it to Ludic, thus explaining the phenomenon's rather uneven distribution in Livvi-Karelian and the South Karelian dialects of Karelian Proper (Ojansuu 1918: 75–76). Conversely, Turunen considers the *j* > *d'* change to be rather old, as it has spread side-by-side in Karelian dialects but also into Veps (Turunen 1946: 318; Zaitseva 2016: 72–74, 202–204). Most likely there is a common history to the sound change and it stems from the influence of Russian (Zaitseva 2016: 73–74).

In the standard varieties of Karelian, graphemes correspond to each consonant phoneme and consonant allophones are not marked, as they do not distinguish meanings. Sound phenomena relating to the position of the consonant (unvoicing, voicing, assimilation, sandhi, etc.) are not covered in normative grammars.

The use of voiced plosives and fricatives, or the lack thereof, depends on the dialects on which the normative grammars are based. In standard Viena Karelian voiced consonants occur only in Russian borrowings, whereas in standard Livvi-Karelian voiced consonants are used in a voiced environment (Markianova 2002: 12; Zaikov 2002: 25; Pyöli 2011: 15). The use of both voiced and voiceless plosives, fricatives, and affricates is typical of the common literary languages of the 1930s (Bubrih 1937: 7–8; Ahtia 1938: 8; Anisimov 1939: 38–39). In these literary standard varieties, voiced consonants occur neither word-initially (*kala* 'a fish', *tora* 'a fight', *pitkä* 'long', *sana* 'a word') nor word-finally (*korvat* 'ears', *jänis* 'a rabbit'), with the exception of Russian loanwords (*gurba* 'a hump', *duumaija* 'to think'). Voiceless consonants occur word-medially in voiceless consonant clusters (*nahka* 'leather', *pitkä* 'long', *lapsi* 'a child', *lastu* 'a woodchip') or they represent the weak grade of a geminate (*akat* from *akka* 'a wife; an old woman', *otan* from *ottua* 'to take', *apet* from *appi* 'a father-in-law'). In other instances voiced consonants are used, i.e. between vowels (*vägi* 'people; strength', *pada* 'a cooking pot', *abie* 'sad', *aiza* 'a shaft, a pole') or in conjunction with voiced consonants (*arga* 'shy', *adra* 'a plough', *ramba* 'lame', *varza* 'a foal').

Zaikov's *Vienankarjalan kielioppi* (2013) is the only grammar of Karelian in which the occurrence of open and close sibilants *š*, *s* is covered in detail (Zaikov 2013: 37–44). All in all, in the contemporary standard varieties of Karelian the distribution of close and open sibilants corresponds to that of the dialects on which each grammar is based. Thus, in the grammar of standard Livvi-Karelian open sibilants are only used in the position following *i*, e.g. in lexemes in which the *i* in closing diphthongs has been deleted during the main dialect's development (*iškie* 'to strike', *kiškuo* 'to pull', *lašku* < **lai-* 'lazy', although not before *t*: *istuo* 'to sit'). At the end of a word, only close sibilants may occur (*huovis* 'inexpensive', *nagris* 'a turnip'). In the grammar of standard Viena Karelian mostly the open sibilant *š* is used. The close sibilant *s* occurs after *i* (**i*) — regardless of whether it is a short vowel, or part of a closing diphthong or a long vowel (*maistua* 'to taste', *istuo* 'to sit', *ruis* 'rye') — and in front of *i* (nouns ending with *-si*, such as *vesi* 'water'), e.g. in inflectional forms (*pesi* 'he/she/it washed', *rupesi* 'he/she/it began to do smth'). (See Zaikov 2013: 38–42.) Bubrih's common literary language opts for close sibilants (*istuo* 'istua', *iskie* 'to strike', *kiza* 'a game', *laiska* 'lazy', *aiza* 'a shaft, a pole', *valmis* 'ready', *astuo* 'to walk', *koski* 'a rapids', *oksa* 'a bough', *kaksi* 'two', *lypsäy* 'he/she/it milks', *lapsi* 'a child', *oza* 'luck', *varza* 'a foal', *kazi* 'a cat', *käzi* 'a hand; an arm', *sana* 'a word', *sieni* 'a mushroom', *vieras* 'a stranger', *kirves* 'an axe') (Bubrih 1937: 8–9).

In the contemporary standard varieties of Karelian, plosive and alveolar palatalisation is only marked when it is positionally determined (*n'okku* 'a beak', *mul'u* 'a hornless cow', *t'outa* 'an aunt', *ied'oi* 'a grandfather', *kur'oi* 'a game ball' [Mark], *ruatuas'sa* ['as one is working'], *vil'l'a* 'grain', *n'apa* 'a navel' [ZaiK]) (Markianova 2002: 11; Zaikov 2002: 36–37; Pyöli 2011: 15).

In Bubrih's grammar, which uses the Cyrillic script, palatalisation of the lateral *l* (*л*) is marked with the grapheme *ь* (soft sign): *яльги* (*jäl'gi*) 'a footstep; a trace', *петкель* (*petkel*) 'a pestle'. Palatalisation of the other dentals and alveolars *d*, *l*, *n*, *r*, *s*, *z*, *t* is not marked in this position: *питкä* (*pitkä*) 'long', *хäндä* (*händä*) 'a tail'. Positionally-determined palatalisation is marked the vowels *я*, *ю*, *ё* that in Russian palatalise the preceding vowel: *горя* (*gor'a*) 'grief', *нёкка* (*n'okka*) 'a beak', *нюакка* (*n'uakka*) 'a jackdaw'. Consonant palatalisation is not marked in derivational and inflectional suffixes; "in this matter, the norm of the southern and in part central and northern[52] main dialect is followed": *вихаза* (*vihaza*) 'angry', *оттуасса* (*ottuassa*) 'as one takes'. (Bubrih 1937: 11–13.) The rules governing the marking of palatalisation in Anisimov's grammar mostly correspond to those of Bubrih, with the exception that word-final palatalisation is not marked (*кÿÿнел* [*kyynel*] 'a tear'). Ahtia's grammar marks palatalisation only when it precedes back vowels (*n'apoi* 'a tap', *gor'a* 'grief', *t'uudie* 'to lull'). Anisimov and Ahtia also note that *d*, *l*, *n*, *r*, *s*, *z*, *t* tend to palatalise in front of *i* when it is not part of the suffix, but such cases are not usually marked orthographically. (See Ahtia 1938: 9–10; Anisimov 1939: 24–25.)

All standard varieties of Karelian have opted for *j* instead of *d'*.

2.5 Geminates

The number of consonant duration degrees ranges in the descriptions of Karelian phonology from two to four: a short consonant and a geminate, or

1) an extra-short consonant, which is an epenthetic transition sound or part of a cluster of three or more consonants and mostly occurs in Russian borrowings (cf. a silent consonant);
2) a short consonant, which may occur in any word or syllable position[53];
3) a half long consonant, e.g. a geminate after a sonorant in a closed syllable; and
4) a geminate. (Nirvi 1932: 19–20; Leskinen 1933: 40–41; Turunen 1946: 21–24.)[54]

A geminate, or a double consonant or a long consonant, is a morphophonological consonant variant articulated with a suspended release (Ahmanova 2007: 140, 437). The difference between a long and a half long consonant is quite difficult to observe without specialised equipment. Moreover, their occurrence in dialect speech varies not only from subdialect to subdialect, but also on the level of idiolect. The opposition of geminates and single consonants in Karelian is demonstrated by minimal pairs, and their opposition serves an important meaning-distinguishing function (cf. Karelian Proper and Livvi-Karelian: *kana* 'a chicken', *kanna* 'carry-IMP').

Table 13 shows that only some of the studied descriptive grammars note this phenomenon, most likely because it does not differ significantly between dialects.

Consonants other than *b*, *c*, *f*, *g*, *dž*, *z*, *ž* may occur in dialect speech as either single consonants or geminates. Geminates are located at syllable boundaries (on the boundary of the

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52 i.e. Livvi-Karelian, Ludic, South Karelian, and Viena Karelian.

53 Some descriptions also distinguish a *puolilyhyt* ('half short') and *vajaalyhyt* ('nearly short') consonant length (see KKVS).

54 An extra-short consonant is usually marked with a smaller superscript grapheme (*gresˈlu* 'temporary extra sides of a sled'). Half long sounds are marked with a grave accent above the grapheme (*verk̀ot* 'fishing nets'). Geminates are sometimes marked with a macron (*ak̄a* 'a wife; an old woman'), but most commonly with two identical graphemes (*akka*).

first and second syllable, and also later in a word) and their segments belong to different syllables (see also Kujola 1910: 7, 10, 12; Liljeblad 1931: 34–35, 39, 49, 54, 56; Nirvi 1932: 20, 23, 26; Leskinen 1933: 20; Turunen 1946: 160–175, 239–241, 294–295, 301–302, 309–312; Barantsev 1975: 115–118). As apocope is typical of the Karelian Proper Dyorzha dialect and Ludic dialects, they have geminates occurring word-finally as well. The same phenomenon is rather common in the speech stream in other Karelian dialects also (see e.g. Kujola 1910: 14; Leskinen 1933: 37; Barantsev 1975: 70). The geminate may shorten in this position. A geminate may also shorten word-medially due to syncope in the Dyorzha dialects and in Ludic dialects.

In Karelian, geminates may occur both in word stems (*akka* / *akku* / *akk*[*e*] / *akk* 'a wife; an old woman', *aitta* / *aittu* / *aitt*[*e*] 'a granary') as well as affixes (*ote-ttih* 'they took'). They can also form on their boundaries (*vet-tä* / *vet-ty* / *vet-t* par. sg of *vezi* / *vesi* 'water'). Most often stem geminates derive from Finnic geminates. In Karelian Proper and Livvi-Karelian, geminates are also often formed due to qualitative consonant gradation (*peldo* 'a field' : *pellot* 'fields'). Geminates also typically replace single consonants in Russian borrowings as they are adapted into Karelian (*passipo* / *passibo* 'thank you').

There are significant differences in the geminates occurring after native sonorants (*lčč*, *lkk*, *lpp*, *ltt*, *mkk*, *mpp*, *nčč*, *nkk*, *ntt*, *rčč*, *rkk*, *rpp*, *rtt*). The Tver Karelian and Tikhvin dialects of Karelian Proper, some Porosozero and Padany dialects, northern Ludic dialects and the Mikhailovskoye dialect differ from other Karelian Proper and Ludic dialects in that the geminates *kk*, *tt*, *pp*, *čč* are in open syllables replaced by single consonants (*kirpu* 'a flea'). There is more variation in Livvi-Karelian, as different sources mention the use of half long consonants or geminates with a shortened first segment being used in conjunction with single consonants and geminates (*kirpu* / *kirppu*). (See Kujola 1910: 8; Nirvi 1932: 19, 20, 24; Leskinen 1933: 21, 32–33; Anisimov 1948: 116; Beljakov 1949: 98; Barantsev 1975: 169; Atlas: maps 54–56; Programmy: 43; KKMK.) Dialect material gatherers have often stated that it is quite difficult to distinguish between the variants in this region (see e.g. Ojansuu 1918: 10, 14).

The shortening of geminates that follow sonorants has likely taken place only after the dialects began to diverge, as unlike with the consonant clusters *lg*, *rg*, *ng*, *ld*, *rd*, *nd*, *lb*, *rb*, plosives have not become voiced (see Leskinen 1933: 41). However, that is not to say that the geminates' tendency to weaken cannot date further back in history. Their shortening may also result from the influence of Russian phonology (see e.g. Ojansuu 1918: 10).

There are two degrees of consonant duration in the normative grammars of Karelian: the single consonant and the geminate (Table 14).

In standard Viena Karelian it is possible to use double consonants both in between vowels and after consonants. Other standard varieties have opted for unification: sonorants may be preceded only by the single-consonant *k*, *t*, *p* and the affricate *č* (*čirku* 'a grasshopper', *perti* 'a house', *kirpu* 'a flea' [Bubr], *palka* 'a wage', *virkoa* 'to speak' [Aht]). (Bubrih 1937: 21; Ahtia 1938: 26; Anisimov 1939: 26–27.)

2.6 Consonant clusters

There are several two-segment consonant clusters in Karelian. In addition, combinations of three or even four consonants are possible.

The data in existing dialect materials on consonant clusters in Karelian dialect speech is presented in Table 15 (Kujola 1910: 7–13; Nirvi 1932: 19, 21–24, 26; Leskinen 1933: 20–21, 25–27, 29–33, 35–36; Palmeos 1962: 19–20; Barantsev 1975: 79, 114–120; Rjagoev 1977: 35–36; Barantsev 1985: 34–43; Rjagoev 1987: 65–69; Novak 2016: 73–76). Consonant palatalisation is unmarked, and consonant clusters that occur only in Russian borrowings or onomatopoeic

words are in italics. Table 15 contains the most common consonant clusters without distinguishing the dialects, so it should be noted that, for example, voiced consonant clusters are not characteristic to the Viena Karelian dialects of Karelian Proper. The occurrence of consonant clusters containing close and open sibilants also differs between dialects and subdialects.

Consonant clusters in Karelian occur as follows. Two-compound fricative-fricative, fricative-sonorant, as well as sonorant-sonorant and sonorant-fricative clusters are typical of Karelian words, i.e.

– plosive-semivowel and plosive-fricative clusters: *ladva* 'a treetop', *üksi* 'one', *okša* 'a bough' (Ryag), *kodvaine* 'a moment', *üksi* 'one' (RyagL), *lapsi* 'a child', *ladve* 'a treetop', *okse* 'a bough' (Bar);

– plosive-liquid and plosive-nasal clusters: *kobra* 'a hand', *pudro* 'groat porridge', *kagla* 'a neck', *kagra* 'oat' (Ryag), *kudmu* 'a ragamuffin', *kablaš* 'the support between skid and bottom of a sleigh', *nieglu* 'a needle', *adru* 'a plough', *nagrua* 'to laugh' (RyagL), *hüpnidä* 'to jump', *kablas* 'ketara', *lidne* 'a city', *adre* 'a plough', *nagro* 'laughter' (Bar);

– also clusters *tk*, *bd*, *gd*, *čk*: *pitkä* 'long' (Ryag), *pitkü* 'long' (RyagL), *matkata* 'to travel', *hobde* 'silver', *agde* 'a head, an end', *mučke* 'sour' (Bar);

– fricatives combine with voiceless plosives: *rahka* 'quark', *šiško* 'a devil', *košto* 'a sarafan' (Ryag), *pihku* 'resin', *tahtuo* 'to want', *usko* 'faith', *kaste* 'dew', *lašku* 'lazy' (RyagL), *vaste* 'a sauna whisk', *kaski* 'swidden', *laške* 'lazy', *puhtas* 'clean', *tuhke* 'ash' (Bar);

– liquids combine with nasals: *ozra* 'barley', *rihma* 'thread', *vehnä* 'wheat' (Ryag), *pehmei* 'soft', lahnu 'a bream', *pihlu* 'a rowan', *kezrätä* 'to spin yarn' (RyagL), *ruozme* 'rust', *ozre* 'barley', *lahne* 'a bream';

– fricatives combine with the semivowels *v*, *j*: *tuhjo* 'a bush' (Ryag), *ahven* 'a perch', *kazvua* 'to grow' (RyagL), *razve* 'butter, fat', *lahje* 'a gift', *ahven* 'a perch' (Bar);

– liquids and nasals combine with plosives and affricates: *šalbua* 'to close', *valgie* 'white', *parda* 'beard', *ramba* 'lame', *linda* 'a gruel boiled in milk', *kolka* 'a corner', *poltamma* 'we burn', *ulči* 'over', *turki* 'fur', *värči* 'a sack' (Ryag), *lambi* 'a pond', *andua* 'to give', *rengi* 'a bucket', *pelto* 'a field', *velgu* 'a debt', *kard'u* 'cattle', *kurgi* 'a crane', *perti* 'a house' (RjagL), *rambe* 'lame', *rande* 'a shore', *hango* 'a poker', *maltan* 'I can', *aldo* 'a wave', *šorpat* 'spikes', *korbi* 'a dark forest' (Bar);

– liquids and nasal combining with fricatives: *anža* 'a trap', *varža* 'a foal', *harva* 'few' (Ryag), *komšu* 'a basket made out of birch bark or shakes', *vanhin* 'the eldest', *künži* 'a nail (anat.), *küpsi* 'ripe', *talvi* 'winter', *sorzu* 'a duck', *därvi* 'a lake' (RyagL), *komšas* 'in a basket', *onzi* 'hollow', *hanhi* 'a goose', *ilves* 'a lynx', *karzin* 'a cellar' (Bar);

– sonorants combining with sonorants: *kolme* 'three', *šilmät* 'eyes', *šurma* 'death', *herneh* 'a pea' (Ryag), *kulmu* 'eyebrows', *sormi* 'a finger', *herneh* 'a pea' (RyagL), *kolme* 'three', *puarme* 'a horsefly', *herneh* 'a pea' (Bar).

Semivowel-plosive, fricative-plosive, and even plosive-plosive clusters are also possible in later borrowings. Semivowel-semivowel and fricative-fricative clusters are the most uncommon ones. Possible clusters are also limited by the place of articulation and voicing. A voiceless consonant cannot combine with a voiced consonant (excluding sonorants) regardless of which comes first. Dental fricatives (*s*, *z*) cannot combine with labiodental fricatives (*f*, *v*).

From the point of view of phonetics and phonology, the affricates *č*, *dž* are clusters of a dental and a fricative consonant, but during their production the shift from the initial articulatory phase to the other is so rapid that they are heard as single consonants. This is the feature that so significantly limits the affricates' ability to combine with other consonants. For example, it is not possible for fricatives or dentals to combine with *č*.

In addition to combinations of single consonants, there are also combinations of single consonants and geminates in Karelian. However, such clusters are not typical of the Karelian Proper Tver and Tikhvin dialects, or to some Porosozero and Padany subdialects, North Ludic,

the Mikhailovskoye Ludic dialect, or of some Livvi-Karelian subdialects, in which the original geminate is replaced by a voiceless single plosive, which has extended the range of possible two-segment consonant clusters.

Consonant clusters in native Karelian words are located on syllable boundaries, most commonly and variedly between the first and second syllable. They may also occur word-initially and word-finally, particularly in dialects to which apocope is typical, and also in other dialects when there is a consonant cluster at the end of the word in the speech stream due to the elision of the word-final vowel. (Barantsev 1975: 70.) Two-segment consonant clusters are often formed on the boundary of the word stem and suffix during inflection and word-formation.

Of the consonant cluster variants presented in Table 15, the following are most commonly found at the beginning of a word: *bl*, *br*, *dr*, *dv*, *gl*, *gn*, *gr*, *gv*, *pl*, *pr*, *ps*, *pš*, *tr*, *ts*, *kl*, *kr*, *kn*, *kv*, *sk*, *sl*, *sm*, *sn*, *sp*, *sr*, *st*, *sv*, *šč*, *šk*, *šl*, *šm*, *šn*, *šp*, *šr*, *št*, *šv*, *zb*, *zd*, *zm*, *zn*, *zr*, *zv*, *žd*, *žr*, *hl*, *hr*, *hv*, *fl*, *fr*, *ft*, *vd*, *vl*, *vr*, e.g. *gnuhoi* 'hard of hearing', *griizi* 'rickets', *druugu* 'a friend', *blimis's'a* 'to ring out', *broni* 'a raven', *kridžis's'a* 'to squeak', *plemmännikat* 'nieces or nephews; cousins', *proličča* 'a paralysis', *flaga* 'a flag', *skoaska* 'a story', *stuknie* 'to knock', *svoaha* 'a chairman', *zvieri* 'a wild beast', *škola* 'a school' (Palm); *bliŋgi* 'to hang; to slosh', *klokšuttaa* '(a bird) leks', *šlöpö* 'sour milk' (Rjag); *kniezi* 'a prince', *blina* 'a blini', *pluat't'u* 'a dress', *griba* 'a mushroom', *priduanei* 'a dowry', *stuanu* 'a pack', *škuappu* 'a closet', *svuad'bo* 'a wedding', *vrača* 'a doctor' (RyagL), *plikuttada* 'to tap', *kridžistä* 'to squeak', *brihe* 'a young unmarried man', *šmotku* 'a scoundrel' (Bar). (See also Kujola 1910: 10–11; Nirvi 1932: 21–22; Leskinen 1933: 25–27; Palmeos 1962: 19–20; Barantsev 1975: 166; Rjagoev 1977: 35–36; Barantsev 1985: 27; Rjagoev 1987: 62–64; Novak 2016: 75–76.) These clusters occur particularly in Russian borrowings and onomatopoeic words (Leskinen 1998: 364–378).

The main dialectal differences in the Karelian consonant cluster system rise from the consonant system properties of individual dialects, i.e. the occurrence of voiced consonants or lack thereof, the preconditions of palatalisation, and the distribution of close and open sibilants. The use of consonant clusters particularly in the Karelian Proper Dyorzha dialect and Ludic subdialects has increased due to syncope, i.e. the loss of vowels from the interior of a word.

Metathesis of the consonant cluster *nh* due to the adjacency of the sounds is typical of Karelian and other Finnic languages (*vanha* / *vanhu* / *vanh* or *vahna* / *vahn* 'old'). The original *nh* occurs in Karelian Proper for the most part, excluding some South Karelian Rugozero, Padany, Porosozero, Myandusel'ga, Tikhvin, Tolmachi, and Ves'yegonsk subdialects; whereas the metathetic *hn* has spread most widely into Ludic and the northern subdialects of Livvi-Karelian (the dialects of Syamozero, Vedlozero, Kotkozero, and Tulomozero, and the northern Kotkozero subdialects). (Ojansuu 1918: 43; Atlas: map 51: KKMK.)

Clusters with three or more segments are rare in Karelian phonology (*hursti* / *huršt* 'a cover'). They are common only in dialects of which syncope is typical. Consonant clusters with several segments usually only occur in onomatopoeic words and Russian borrowings both word-medially and word-initially. The most common three-segment consonant clusters in Karelian are *ksr*, *ldr*, *lsk*, *lsv*, *lšč*, *mbr*, *mpš*, *ndr*, *nsk*, *nst*, *nsv*, *psk*, *pšč*, *rsk*, *ršk*, *rst*, *ršk*, *ršt*, *rsv*, *rvn*, *skl*, *skr*, *spl*, *spr*, *stl*, *str*, *stv*, *štr*, *zbr* (*skrippie* 'to squeak', *sproavie* 'to take care of', *zbruuja* 'a tool' [Palm]; *kirstu* 'a cheast', *huršti* 'a cover', *laŋgjuah* 'he/she/it falls down', *pirskuat* 'you sprinkle' [Rjag]; *spluavu* 'timber rafting', *spruahku* 'a report', *stroičču* 'the Holy Trinity' [RyagL]; *hursti* 'a cover' [Bar]). (See Kujola 1910: 11–12; Nirvi 1932: 19; Leskinen 1933: 21; Palmeos 1962: 20; Barantsev 1975: 79–80, 168–172; Rjagoev 1977: 37; Barantsev 1985: 43; Rjagoev 1987: 65; Novak 2016: 76.)

In the standard varieties of Karelian consonant clusters typically occur both word-medially and word-initially, in onomatopoeic words and borrowings, e.g. *briha* 'a young unmarried man', *griba* 'a mushroom', *svuad'bu* 'a wedding', *bruakkua* 'to crow', *krabista* 'to rattle' (Mark), *skiäkä* 'a (door) handle', *sriäppie* 'to bake', *prostie* 'to forgive', *skokuna* 'a frog' (ZaiK). Two-segment consonant clusters are fairly common. Consonant cluster system differences between the grammars reflect those of the dialects on which the grammars are based, cf. e.g. *kakla* 'a neck', *kakra* 'oat', *petra* 'a wild deer' (ZaiK: 19–20); *kaglu*, *kagru*, *pudro* 'porridge' (Aht: 7, Pyöl: 16). Three-segment consonant clusters, which include the clusters of consonants and geminates in standard Viena Karelian, are possible, e.g. *hursti* 'a cover', *harskie* 'sparse' (ZaiK); *skripku* 'a fiddle', *strojie* 'to build', *spruavie* 'to take care of' (Mark, Pyöl). In Bubrih's common literary language and in standard Viena Karelian *nh* is not replaced by *hn* (Bubr: 21; ZaiK: 19–20), whereas in standard Livvi-Karelian *hn* is used.

PHONOLOGY OF KARELIAN

The Karelian language is characterized by phonologically-conditioned vowel and consonant sound variations in the word stem that occur in the processes of word inflection and word formation. In such cases of alternation, the phonological realisation of a certain morpheme in the same position varies depending on its environment (Ahmanova 2007: 513–514; LÈS).

Alternation is one of the most distinctive features of the Finnic morphophonological system. Rooted in Late Proto-Finnic, alternations occur in most Finnic languages. (See Bubrih 1948: 120; Hakulinen 1972: 60; Lehtinen 2007: 144–145.) Alternations are usually divided into consonant and vowel alternations in Finnic languages. Both types play important parts in word inflection.

In morphophonological alternation, the sound segment of a morpheme has different phonetic realisations in different environments, i.e. the morpheme has different allomorphs. (VISK § 40). A morpheme's phonetic variation is affected by its phonetic environment and the grammatical form of the word.

3 Vowel alternation

Vowel alternations in Karelian may be divided into three groups: 1) alternation of vowels in the stressed syllable, 2) alternation of stem-final vowels, and 3) alternation of vowels in the inflectional stem.

Regular variation of stressed vowels in the stem is usually caused by contraction, which in turn is caused by the variation of plosives between vowels. For this reason, most grammars detail this type of alternation alongside consonant gradation. In addition, these types of vowel alternations are detailed in chapters on the system of contraction-induced diphthongs.

Alternation of the stem-final vowels occurs in the word stem or the inflectional stem when certain inflectional suffixes are added to it. Adding a suffix causes alternations in short and long vowels and diphthongs (VISK § 45). This type of alternation is usually detailed in chapters on morphology, as it is connected to declension and conjugation. Alternation can be seen by comparing different inflectional forms: nominative singular with comparison degree forms, vowel stem with 1st infinitive forms, vowel stem with passive forms, etc. In the inflectional stem, vowel alternation is caused by affixes that realise as *i*, or affixes that include *i* in the formation of noun oblique plural, superlative adjective, verb indicative, and conditional imperfect forms.[55]

[55] Of the descriptive grammar materials used in this study, only Genetz's *Tutkimus Venäjän karjalan kielestä* and *Tutkimus Aunuksen kielestä* and Anisimov's *Fonetika sela Kotkozera* have chapters dedicated to vowel alternation. Vowel alternations are also detailed in Rjagoev's *Tihvinskij govor karel'skogo jazyka* and *Očerki po livvikovskomu dialektu karel'skogo jazyka*. With the other grammars, supplementary material has been gathered from the corresponding chapters on phonology and morphology.

3.1 Vowel alternations in stressed syllable

A host of regular quantitative and qualitative stressed-syllable vowel changes occur during inflection in the Karelian language (Table 16) due to qualitative consonant gradation, in which the loss of a plosive causes vowels that belong into separate syllables to contract into diphthongs or long vowels. As qualitative consonant gradation is not characteristic to the phonology of Ludic, word-stem vowel alternation is not typical of it either.

With the descriptive grammar data, one can identify four basic types of variation of stressed vowels in the inflectional stem that result from regular consonant gradation:

1) the diphthongisation of vowel sequences atypical of the dialects' phonologies that have been formed due to the loss of consonants between vowels (*a-a*, *ä-ä*, *a-e*, *ä-e*, *e-a*, *e-ä*, *e-e*, *i-a*, *i-ä*, *i-e*). This process led to a diphthong's replacing a short vowel in a stressed syllable (most often an opening diphthong but in some dialects a long vowel). The formation of the diphthong depends on the characteristics of the vowel system of the dialect or subdialect in question.

Therefore, the loss of a plosive between, for example, the vowels *a-a*, *ä-ä* has led to different diphthong variants, which are

– *ua* (*pada* / *pata* : *puan* / *pi̯an* 'a cooking pot' nom. sg : gen. sg), *iä* (*hädä* / *hätä* : *hiät* 'trouble' nom. sg : nom. pl) in nearly all Viena Karelian and transitional dialects of Karelian Proper, and also the Maslozero, Shuyezero, Reboly, Rugozero, Tunguda, Padany, Myandusel'ga, Ilomantsi, Suystamo, Korpisel'kya, Tikhvin, and Tver dialects of South Karelian; in the Impilakhti, Kotkozero, Nekkulitsy, Rypushkalitsy, and Salmi dialects of Livvi-Karelian and also some Syamozero and Vedlozero subdialects, but *i̯a* in the Ves'yegonsk and Kondushi dialects and the subdialects of Tolmachi and Padany;

– *oa* (*poan*), *eä* (*heät*) in the Suomussalmi, Porosozero, Myandusel'ga, Padany, Suoyarvi, and Valday dialects of Karelian Proper, and in the Livvi-Karelian subdialects of Vedlozero, Syamozero, and Kotkozero;

– *oo* (*poon*), *ee* (*heet*) in some Padany and Suystamo subdialects;

– *aa*, *ee* (*paan*, *heet*) in the Vidlitsa and Tulomozero dialects of Livvi-Karelian and the Rugozero subdialects of Karelian Proper.

In Livvi-Karelian dialects, *e* is typically preceded by the change *a-e* > *ae* > *ai*, *ä-e* > *äe* > *äi* (*käde-* : *käet* / *käit* 'hands; arms' strong vowel stem : nominative plural), whereas in Karelian Proper dialects the diphthongs are mostly the same as with *a-a*, *ä-ä* (*kiät*).

Plosives positioned between *e-e* have changed into the semivowel *j* in the transitional dialects of Karelian Proper and most Viena Karelian dialects, with the exception of the Olanga dialect, northern Kestenga and Vychetaybola dialects and some subdialects of Keret, in which the diphthong *ie* occurs in the weak grade (*reki* : *riet* 'a sled' strong stem : nom. pl), and the Suomussalmi dialect, in which the diphthong *ei* occurs in the weak grade (*reit*). However, in the Maslozero and Shuyezero dialects and the northern Rugozero and Tunguda subdialects, *j* occurs in the weak grade. Consonant loss which does not lead into diphthongisation occurs in Rugozero, Padany and Suoyarvi subdialects (*reet*). In Inner Russian enclave dialects a transitional phoneme may occur in the weak grade. The diphthong *ei* (*reit*) occurs in the Valday dialect, as well as in most South Karelian dialects of Karelian Proper, and the variant *ie* (*riet*) occurs in the Tikhvin dialect and the dialects of Tver Karelian. The diphthong *ie* (*rien*) is formed in all Livvi-Karelian dialects. However, *ei* (*rein*) occurs in some subdialects of the Syamozero and Tulomozero dialects and the dialects of Salmi and Impilakhti. In Vedlozero, Vidlitsa, and Kondushi subdialects the consonant is elided with no subsequent diphthongisation (*reet*).

The contraction of *e-ä*, typical mainly of the South Karelian dialects of Karelian Proper and Livvi-Karelian, has led to the formation of the diphthongs *eä* / *iä* / *ie* (*vedä-* : *veän* / *viän* /

vien 'to pull' strong stem : pres. ind. 1sg), and the contraction of *i-ä* has resulted in the formation of *ie*, *iä*. These differences are usually directly linked to the characteristics of the vowel systems of the concrete dialects.[56] (See also Kujola 1910: 21–22; Ojansuu 1918: 94–99; Liljeblad 1931: 11, 17; Nirvi 1932: 46–47; Leskinen 1933: 16–17, 49–50; Atlas: maps 11, 14–18, 22; Programmy: 27, 51–57; KKMK.)

2) alternation of the opening diphthongs *uo*, *yö*, *ie*, preceding the weak-grade equivalents *v* and *j*, with the long vowels *uu*, *yy*, *ii* (with the closing diphthongs *uw*, *yw*) (*vuode-* : *vuvvet* / *vuwvet* 'a year' strong vowel stem : nom. pl)

3) alternation of short vowels with the closing diphthongs ending in *i* (*rugehet* / *rukehet* : *ruis* 'rye' nom. pl : nom. sg). (See Kujola 1910: 22; Nirvi 1932: 47; Leskinen 1933: 94; Atlas: maps 23, 26; Programmy: 31; KKMK.)

4) alternation of short vowels with long vowels in the Karelian Proper Tikhvin dialect and in Tver Karelian subdialects preceding the short *r* (*r* < *rr*) which is the weak-grade equivalent of the consonant clusters *rg*, *rd* (*härgä* : *häärät* '*bull* : *bulls*') (see Zlobina 1967: 98; Virtaranta 1972: 13, 17).

Stressed-syllable alternations that result from consonant gradation are similar across the standard varieties of Karelian, with the exception of the alternation of short and long vowels (Table 17).

The opening diphthongs *uo*, *yö*, *ie* typically alternate with the long *uu*, *yy*, *ii*, and the short vowels alternate with closing diphthongs ending in *i*, while the vowel sequences that have formed due to consonant elision contract into diphthongs. All normative grammars apart from Ahtia's mention the changes *a-a* > *ua*, *ä-ä* > *iä* that have occurred due to the deletion of the plosive between the vowels (Aht: *a-a* > *oa*, *ä-ä* > *eä*). The change *e-e* > *ie* is also typical of the contemporary standard varieties of Karelian. Ahtia accepts the two variants *ie* / *ei*. Concerning *a-e* and *ä-e*, standard Viena Karelian opts for the opening diphthongs *ua*, *iä* or the use of the transitional phoneme *j* (*vetä-* : *vejän* 'to pull' strong stem : pres. ind. 1sg), whereas standard Livvi-Karelian opts for the closing diphthongs *ai*, *äi*. Ahtia's grammar also includes the diphthongs *ae*, *äe*. In Bubrih's and Anisimov's common Karelian literary languages, the equivalent *j* is used in these cases (*rege-* : *rejet* 'a sled' strong stem : nom. pl, *lage-* : *lajet* 'a ceiling' strong stem : nom. pl).

3.2 Stem-final vowel alternations

Stem-final vowel alternations result from the diphthongisation of vowel sequences that are atypical of the dialects. The vowels in these sequences originally belonged to different syllables, but ended up adjacent to each other as the weak-grade consonant disappeared from suffixal consonant gradation. This type of alternation occurs in the partitive of singular nouns (*kala* 'a fish' : *kalua* / *kaloa* / *kalia* < **kalaδa*), the 1st infinitive of verbs (*otta-* 'to take' strong stem : *ottua* / *ottoa* / *ottia* < **ottaδa*), and also in the inflection of nouns and verbs belonging to certain inflectional categories (*lyhyt* : *lyhyöt* '*lyhyt* : *lyhyet*' < **lyhyδe-*, *hypätä* : *hyppiän* 'I jump' < **hyppäδä-*). Ludic is not mentioned here as, unlike other main dialects, it bears no markings of either radical or suffixal consonant gradation.[57]

Based on the descriptive grammar data (Table 18), the following alternations in the stem-final vowels that result from historical contractions are typical of the dialects of Karelian Proper and Livvi-Karelian:

[56] See chapters 1.6 *Diphthongs* and 3.2 *Stem-final vowel alternations*.

[57] See chapter 4 *Consonant gradation* for further details.

1) the following variation may be observed when comparing the word stem of a single-stem nominal with the partitive singular form, and also the vowel stem of single- and two-stem contraction verbs with the 1st infinitive form:

– ***a*** : ***o*** / ***u*** > ***oa*** / ***ua*** / ***oo***[58] < **a-a* (**a-a* > *aa* > *oa* > *ua*) (*kala* : *kaloa* / *kalua* / *kaloo* < **kalaδa* 'a fish' nom. sg : par. sg, *ošta-* : *oštoa* / *ostoa* / *oštua* / *ostua* < **ostaδa-* 'to buy' strong stem : inf1, *avata* / *avaitta* [Ludic]: *avoa-* / *avua-* < **avaδa-* 'to open' inf1 : vowel stem). Tulomozero and Vidlitsa dialects and Padany subdialects retain *a* (*kalaa*, *ostaa*, *avaa-*), whereas the alternation *a* : *[į]* (*kalįa*, *oštįa*, *avįa-*) is typical of the Ves'yegonsk and Kondushi dialects. (See Atlas: map 6; KKMK.)

– ***ä*** : ***e*** / ***i*** / ***ö*** > ***eä*** / ***iä*** / ***öä*** / ***yä*** / ***ie*** < ****ä-ä*** (**ä-ä* > *ää* > *eä* > *iä*) (*kylä* : *kyleä* / *kyliä* / *kylöä* / *kylyä* / *kylie* < **kyläδä* 'a village' nom. sg : par. sg, *elä-* : *eleä* / *eliä* / *elöä* / *elyä* < **eläδä-* 'to live' stem : inf1), while *ä* is retained in the Tulomozero and Vidlitsa dialects (*kylää*, *elää*) (see Atlas: map 7; KKMK)

– ***o*** ~ ***ö*** : ***u*** ~ ***y*** > ***uo*** ~ ***yö*** / ***ua*** ~ ***yä*** < ****o-a*** ~ ***ö-ä*** (**o-a* > *oa* > *ua* > *uo*, **ö-ä* > *öä* > *yä* > *yö*) (*kaivo* : *kaivuo* / *kaivua* < **kaivoδa* 'a well' nom. sg : par. sg, *sano-* / *šano-* : *sanuo* / *šanuo* / *šanua* / *sanua* < **sanoδa-* 'to say' stem : inf1, *uinota* : *uinuo-* / *uinua-* < **uinoδa-* 'to fall asleep' inf1 : vowel stem). The Tulomozero and Vidlitsa dialects and their neighbouring Suystamo subdialects typically retain *o* / *ö* (*kaivoo*). (See Atlas: maps 8, 10; KKMK.)

– ***e*** : ***i*** > ***ie*** / ***ia*** ~ ***iä*** < ****e-a*** ~ ***e-ä*** (**e-a* > *ea* > *ia* > *ie*, **e-ä* > *eä* > *iä* > *ie*) (*joge-* / *d'oge-* : *jogie* / *d'ogie* / *jogia* / *d'ogia* < **jokeδa* 'a river' strong stem : par. sg, *itke-* : *itkie* / *itkiä* < **itkeδä-* 'to weep' strong stem : inf1, *ruveta* : *rupie-* / *rubie-* / *rubia-* < **rupeδa-* 'to begin' inf1 : vowel stem), while the Tulomozero and Vidlitsa dialects and their neighbouring Suystamo subdialects may retain the *e* (*d'ogee*) (see also Kujola 1910: 22–26; Ojansuu 1918: 105–114; Liljeblad 1931: 27–28; Nirvi 1932: 47–53; Leskinen 1933: 79–89; Leskinen 1998: 379–380).

2) with nominals, vowel alternations that follow a stressed syllable result from vowel contraction:

– ***e*** : ***ie*** / ***ia*** (Tulomozero, Vidlitsa, Padany) < ****e-e*** in two-stem nominals ending in *-e* (*kašše* / *kašte* / *kaste* : *kaštien* / *kastien* / *kastian* < **kasteyen* 'dew' nom. sg : gen. sg);

– ***u*** ~ ***y*** : ***uo*** ~ ***yö*** : < ****u-e*** ~ ****y-e*** in two-stem nominals ending with *-us* ~ *-ys*, *-uš* ~ *-yš*, *-ut* ~ *-yt* (*lyhyt* : *lyhyöt* / *lyhyet* < **lyhyδet* 'short : the short ones'). (See also Kujola 1910: 26, 56–57; Liljeblad 1931: 26; Nirvi 1932: 56–57; Leskinen 1933: 91–92.)

If sequences of two adjacent vowels after a stressed syllable were foreign to Late Proto-Finnic (apart from closing diphthongs ending in *i*), an elision of spirants between vowels must have taken place in Old Karelian, which resulted in adjacent vowels becoming diphthongs, and the types of vowel alternation detailed here were thus formed.

These stem-final vowel alternations that concern the formation of partitive and infinitive forms are typical of the standard varieties of Karelian (see Table 19). They are directly connected to the vowels systems of the main dialects on which they are based.

3.3 Vowel alternations in the inflectional stem

Various stem-final vowel (short and long vowel and diphthong) alternations occur in all main dialects of Karelian when the affix *i* is added to the word stem in oblique plural forms of nominals, superlative forms of adjectives, and indicative and conditional imperfect forms of verbs (see Table 20).

The following vowel alternations occur in the inflectional stem before an affixal *i*:

[58] The distribution in dialects in subdialects usually corresponds to their respective distributions of opening diphthongs (see chapter 1.6.1 *Opening diphthongs*).

1) ***a* : *o* / *uo*** (Ludic) in the formation of plural obliques and in imperfect forms, and those disyllabic nominals and verbs whose first syllable contains *a*, *e*, *i* or an opening diphthong with one of those vowels, and in some polysyllabic nominals. In such cases variation usually occurs if *a* in the stem is preceded by plosives or *n* (but not *h*, *v*, *j*, *m*, *mb*) and the penultimate syllable contains *a*, *e*, *i* (*kaloih* / *kaluoihe* [Ludic] ill. pl of *kala* 'a fish', *harakkoih* / *harakkuoihe* [Ludic] ill. pl of *harakka-* 'a magpie', *annoin* / *anduoin* [Ludic] imperf. ind. 1sg of *anda-* 'to give');

2) ***a* : *Ø*** preceding the plural or imperfect affix in single-stem disyllabic nominals and verbs whose first syllable contains *a*, *u* or a diphthong with either of those vowels, and in some polysyllabic nominals (usually adjectives); in all two-stem nominals and polysyllabic verbs (*poigih* / *poigiihe* [Ludic] ill. pl. of *poika-* 'a son', *puhtahih* / *puhtahiihe* [Ludic] ill. pl. of *puhtaha-* 'clean', *otin* imperf. ind. 1sg of *otta-*). Alternation also always occurs preceding the superlative affix (*vanhin* / *vahnin* / *vanhiin* from the stem of *vanha-* 'old'). In Karelian Proper enclave dialects and Ludic dialects, the alternation *a* : *i* may occur in this position, which apparently derives from the affix *ii;*

3) ***ä* : *Ø* (*ä* : *i*)**, excluding a group of nominals (usually polysyllabic nominals; if plosives or *n* precede *ä* or if the penultimate syllable contains *e*, *i*) of which the alternation *ä* : *ö* / *yö* (Ludic) is typical in this position (*päivih* / *päiviihe* ill. pl of *päivä-* 'a day', *kylvin* / *kylviin* imperf. ind. 1sg of *kylvä-* 'to sow', *igävöih* / *ikävöih* / *igävyöih* [Ludic] of *igävä-* / *ikävä-* 'sorrow')

4) ***e* : *Ø* (*e* : *i*)** (*kivih* / *kiviihe* [Ludic] ill. pl of *kive-* 'a stone', *tulin* / *tuliin* imperf. ind. 1sg of *tule-* 'to come');

5) ***VV* : *V*** in Karelian Proper and Livvi-Karelian diphthongs lose their first segment due to the adding of an affix containing *i* (excluding verbs ending in *-uta* / *-ytä* whose vowel stems lose the second segment of the diphthong in the imperfect) (*korgeih* / *korkeih* ill. pl of *korgie-* / *korkie-* 'tall', *rubein* / *rupein* imperf. ind. 1sg of *rubie-* / *rupie-* 'to begin), whereas in Ludic dialects long vowels become short (*puihe* ill. pl of *puu* 'a tree'). (See also Kujola 1910: 45; Leskinen 1933: 102–104.)

All in all, vowel alternations in the stem before affixal *i* occur similarly in all dialects of Karelian, which is explained by this type of alternation's having formed already in the Late Proto-Finnic period (OFUJA: 38–39). There are, therefore, no significant differences in the standard varieties of Karelian in this regard.

In his grammar of the common Karelian literary language, Bubrih reports that the variation *a* / *ä* : *o* / *ö* has extended into disyllabic nominals ending in *a* whose first syllable contains *a*, *e*, *i* or *ua*, *ie*, and into polysyllabic nominals whose word-final *a*, *ä* are preceded by two consonants, and also into disyllabic verbs ending in *a* whose first syllable contains *a* or *ua*; in other cases, the variation *a* / *ä* : *Ø* occurs (Bubrih 1937: 43–44, 68–70). In Ahtia's grammar the variation *a* : *o* is characteristic to disyllabic nominals whose first syllable contains *a*, *oa*, *e*, *i*, and to polysyllabic nominals whose final syllable contains *i* or *b*, *d*, *g*, *k*, *n*, *t*, *sv* before *a*, and to disyllabic verbs whose first syllable contains *a*, *oa*. The variation *a* : *Ø* is typical of disyllabic nominals whose first syllable contains *o*, *u*, and to polysyllabic nominals in which *a* is preceded by *m*, *mb*, *v*, and to all other verbs. With some polysyllabic nominals, both variants are possible (*laulaj* : *laulajoi* / *laulajii* 'one that sings' nom. sg : par. pl). The alternation *ä* : *ö* occurs in polysyllabic nominals whose penultimate syllable contains *i* or g, *k*, *n*, *t* before *ä*. The alternation *ä* : *Ø* occurs in disyllabic nominals and all verbs. With some polysyllabic nominals, both types of alternation are possible.

3.4 Other stem-final vowel alternations

Apart from the stem-final vowel alternations that are caused by either the historical contraction or affixal *i*, the Karelian inflectional system contains a set of alternations that have formed at different times during the language's evolution. Some of the most important ones are:

1) labialisation of stem-final vowels. In most Karelian Proper dialects, the stem-final vowel *e* which precedes the 3rd infinitive affix *-ma-* / *-mä-* is subject to alternation in declension and word formation. Alternation in this position is not typical of the Reboly, Porosozero, Myandusel'ga dialects, the Karelian Proper subdialects of Border Karelia, or subdialects of the Inner-Russian enclave dialects (with the exception of southern Tolmachi subdialects) (*tulomah* / *tulemah* from *tule-* 'to come'). In all main dialects of Karelian, labialisation has extended to *e* in pres. ind. 3sg verb forms (*tulou* / *tulow* / *tulov* / *tulob*). (See Genetz 1870: 238; Genetz 1872: 8; Genetz 1880: 171; Genetz 1885: 134; Kujola 1910: 19; Ojansuu 1918: 121; Nirvi 1932: 40; Leskinen 1933: 74–75; Beljakov 1948: 85–94; Anisimov 1948: 128; Turunen 1950: 79; Palmeos 1962: 54; Manžin 1964: 52; Rjagoev 1977: 111–112; Barantsev 1985: 143; Virtaranta 1986: 106; Rjagoev 1987: 317; OFUJA: 44; Atlas: maps 32, 139.) In these cases, labialisation has been caused by *w*, *v* which follow the vowel and either belong to or have belonged to the following syllable.

Similar cases of labialisation occur in the Eastern Finnish dialects, Ingrian, and the South Veps dialect, which indicates that the phenomenon is an old one (see Turunen 1950: 79; Rapola 1966: 402, 404; OFUJA: 44; Laanest 1966: 80–81). The lack of labialisation in some cases in Livvi-Karelian and Ludic may have resulted from the influence of northern Veps dialects during the main dialects' formation. The influence of Livvi-Karelian and Ludic apparently explains the cases in which labialisation has not occurred in some southern dialects of Karelian Proper or in their subdialects.

In the standard varieties of Karelian, *e* in the stem changes into *o* / *ö* when it precedes the pres. ind. 3sg affix (*tulen* : *tulou* 'I come : he/she/it comes' [Bubrih 1937: 20; Ahtia 1938: 17–18; Markianova 2002: 20; Pyöli 2011: 17], *luven* : *lugou* 'I read : he/she/it reads' [Anisimov 1939: 127–128], *kävelen* : *kävelöy* 'I walk : he/she/it walks' [Zaikov 2002: 30–31]). The variation *e* : *o* / *ö* preceding the 3rd infinitive affix *-ma* / *-mä* occurs only in standard Viena Karelian (*sylke-* : *sylkömässä* 'to spit' strong stem : inf3. ine.) (Zaikov 2002: 127).

2) ***a*** ~ ***ä*** : ***e*** in the comparative and passive forms of disyllabic adjectives (*paha* : *pahembi* 'bad : worse', *elä-* : *eletty* 'to live' stem : pass. ptcp2) (see Kujola 1910: 46; Nirvi 1932: 43–45; Leskinen 1933: 101–102; Beljakov 1948: 66, 119; Anisimov 1948: 40–41). Alternation also occurs in the standard varieties of Karelian (*harva* : *harvembi* 'few : fewer' [Bubr: 34], *vanha* : *vanhembi* 'old : older', *andau* : *annetah* 'he/she/it gives : they give' [Aht: 17], *čoma* : *čomembi* 'beautiful : more beautiful' [Anis: 77], *heitän* : *heitetäh* 'I throw : they throw' [ZaiK: 31], *kova* : *kovembat* 'hard : harder' [Mark: 20; Pyöl: 17]).

3) alternations seen by comparing vowel stems and nominative singular forms:[59]

– ***e*** : ***i*** in single and two-stem nominals (*kive-* : *kivi* 'a stone' stem : nom. sg, *piene-* : *pieni* 'small' vowel stem : nom. sg) (Genetz 1885: 132; Rjagoev 1987: 118). The word-final *e* alternating with *i* dates back to Late Proto-Finnic (OFUJA: 38);

– ***e*** : ***Ø*** in two-stem nominals ending in *-eh*, *-en*, *-el*, *-er* that have a vowel stem ending in *-ehe-*, *-ene-*, *-ele-*, *-ere-* (*paimene-* : *paimen* 'a shepherd' vowel stem : nom. sg), and nominals ending in *-is* that had a vowel stem ending in *-ehe* (*valmehe-* : *valmis* 'ready; done' vowel stem :

[59] For the alternations of word-final *a* / ä in Livvi-Karelian and Ludic see chapter 1.4 *Word-final vowel alternations*.

nom. sg). In this case one should note the penultimate vowel of the stem, *i,* alternating with *e*, which can be explained as an analogy of the aforementioned forms. (Ojansuu 1905: 19–20; Nirvi 1932: 44; Rjagoev 1977: 70, 76–80.)

– ***a*** ~ ***ä*** : ***Ø*** in disyllabic nominals that had a stem ending in *-aha-* ~ *-ähä-* < **-ahe-* ~ *-ähe-* (*puhtaha-t* : *puhaš* / *puhas* 'clean' vowel stem : nominative singular) (see also Nirvi 1932: 43–45);

– normative grammars mention the following examples of vowel alternations: *siivet* : *siibi* 'wings : wing', *perehe-* : *pereh* 'a family' vowel stem : nom. sg (Bubrih 1937: 34), *tulen* : *tuli* 'fire' gen. sg : nom. sg, *nagrehe-* : *nagris* 'a turnip' vowel stem : nom. sg (Ahtia 1938: 18), *kurre-* : *kurgi* 'a crane' weak stem : nom. sg, *ahvenet* : *ahven* 'perches : perch', *hambahat* : *hammas* 'teeth : tooth' (Anisimov 1939: 77), *kylessä* : *kylki* 'in the side : side', *paimenella* : *paimen* 'on the shepherd : shepherd', *kintahassa* : *kinnas* 'in the glove : glove' (Zaikov 2002: 30–31). These alternations are not marked as distinct forms in the grammar of Livvi-Karelian, although they are typical of the main dialect (*lehten* : *lehti* 'a leaf' gen. sg : nom. sg, *perehen* : *pereh* 'a family' gen. sg : nom. sg, *armahat* : *armas* 'dears : dear');

4) ***VV*** : ***Vi***, particularly the alternation of the opening diphthongs *oa* (*ua* / *aa*), *eä* (*iä* / *ää*), *ie* (*ia* / *iä*) with closing diphthongs *ai*, *äi*, *ei* in nominative singular in Livvi-Karelian dialects (*korgiet* : *korgei* 'tall ones : tall', *harmuat* : *harmai* 'grey ones : grey') (Rjagoev 1987: 94), and correspondingly also in standard Livvi-Karelian (*harmuan* : *harmai* 'grey' gen. sg : nom. sg) (Markianova 2002: 19; Pyöli 2011: 18) and in Ahtia's grammar (*harmoan* : *harmai*) (Ahtia 1938: 18);

5) ***oi*** ~ ***öi*** : ***o*** ~ ***ö*** in Livvi-Karelian dialects, ***uoi*** ~ ***yöi*** : ***o*** ~ ***ö*** in Ludic dialects before the plural affix *-loi-* ~ *-löi-* (*reboil* / *rebuoil* : *reboloil* / *reboluoil* 'a fox' ade. sg : ade. pl). Diphthongs shorten also in the inflection of caritive adjectives that have been formed with the suffix *-toi*(*n*) ~ *-töi*(*n*) (*voimatoi*[*n*] / *voimatuoi* : *voimattomat* 'sick : sick ones') (see Ojansuu 1918: 137–150; Leskinen 1933: 101–102; Anisimov 1948: 41–42). In such cases diphthong in retained in a closed syllabe and elided in an open syllable (OFUJA: 43–44). The aforementioned alternation *oi* ~ *öi* : *o* ~ *ö* is codified in Ahtia's grammar (*mučoi* : *muччoloi* 'a young wife' nom. sg : par. pl, *luutoi* : *luuttomat* 'boneless : the boneless ones') (Ahtia 1938: 19).

In addition, the alternation of a diphthong ending in *i* with a short vowel in nominals ending in *-ne* that have a stem ending in *-ze* / *-že* is typical of the southern dialects of Livvi-Karelian (Tulomozero, Nekkulitsy, Rypushkalitsy, Kotkozero and southern Vidlitsa subdialects): ***Vi*** : ***V*** (*akkaine* : *akkazet* / *akkažet* 'an old woman : old women') (see Atlas: maps 38–39). In other Livvi-Karelian dialects as well as in Ludic, the alternation is seen in the comparison of nominative and partitive singular forms of nominals ending in *-ne* (*myöhäine* : *myöhäšty* / *myöhäšt* / *myöhäšte* 'late' nom. sg : par. sg) (Anisimov 1948: 39; Turunen 1950: 173). The same alternation occurs also in Karelian Proper dialects; however, the diphthong occurs in the partitive singular form and the short vowel occurs in the nominative (*päiväne* / *päiväni* : *päiväistä* 'the sun' nom. sg : par. sg).[60]

The alternation of short vowels with closing diphthongs ending in *i* in nominals that end in *-ne* / *-ni* and have a stem ending in *-ze* is described in various ways in the normative grammars. In standard Livvi-Karelian a diphthong occurs only in the nominative singular (*keldaine* : *keldazet* : *keldastu* 'yellow' nom. sg : nom. pl : par. sg) (Mark: 20), whereas in stardardised Viena Karelian a diphthong occurs only in the partitive singular, i.e. in the consonant stem (*lintuni* : *lintuista* 'a bird' nom. sg : par. sg) (ZaiK: 30–31). The common Karelian literary language grammars have unified the phenomenon. Bubrih's grammar opts for the short vowel (*kuldane* : *kuldazet* : *kuldasta* 'golden' nom. sg : nom. pl : par. sg), while in Ahtia's grammar the diphthong has prevailed (*kuldaine* : *kuldaizet* : *kuldaista*).

[60] See chapter 1.6.2 *Closing diphthongs*.

4 Consonant gradation

Without exception, a feature characteristic to the phonological systems of each Karelian dialect is consonant gradation, which Bubrih called "the most complicated phonological feature of the Finnic languages" (Bubrih 1948: 119). Consonant gradation means that plosives positioned between vowels or after consonants are deleted or replaced (see OFUJA 34; VISK § 41). Strong and weak grades alternate with one another (Bubrih 1937: 15–19; Zaikov 2002: 32). Consonant gradation in Karelian is usually divided into quantitative and qualitative gradation, depending on the features of the pairs of weak and strong grades.

The grade is identified by the phoneme's position and particularly by the quality of the syllable in which it is located, i.e. with the rare exception, the strong grade occurs in an open syllable (a syllable that ends with a vowel) and the weak grade occurs in a closed syllable (one that ends with a consonant) (Hakulinen 1979: 60). In Livvi-Karelian, the stressedness or unstressedness of the syllable also greatly affects the grade, i.e. there is no gradation after the second syllable of the word.

Concerning the occurrence of consonant gradation in nominal declension and verb conjugation paradigms, one must note the Finnic feature of single and two-stem nominals and verbs[61] (see OFUJA: 51). In the case of single-stem lexemes, the grammatical affix is added to the only possible vowel stem, whereas with two-stem lexemes it is added to the consonant stem (which contains the weak grade) in certain forms, and to vowel stem in others. This explains why the same grammatical forms of single and two-stem words contain in most cases different grades in the stem. For example, *aitta* / *aittu* / *aitte* (nom. sg) : *aitat* (nom. pl) 'a granary' features direct gradation in the stem, whereas *tytär* (nom. sg) *tyttäret* / *tyttäred* (nom. pl) 'a daughter' features inverse gradation. The basic rule of consonant gradation is that it is regular: a weak grade occurs in a closed syllable and a strong one in an open syllable. Therefore, disyllabic nominals have a weak-grade consonant stem and a strong-grade vowel stem.

4.1 Quantitative gradation

Quantitative consonant gradation, which has come to affect also geminates and causes them to shorten, is typical of each main dialect of Karelian (Table 22).

In all dialects of the Karelian language, quantitative gradation concerns the geminate plosives *kk*, *tt*, *pp*, and the affricate *čč* after a stressed syllable and also further in the word. In a closed syllable they shorten into single consonants (*akka-* : *akat* 'a wife; an old woman', *harakka-* : *harakat* 'magpie', *nuotta-* : *nuotat* 'a seine', *pappi-* : *papit* 'a priest', *meččä-* : *mečät* 'a forest' strong stem : nom. pl). What separates Livvi-Karelian and Ludic from Karelian Proper is their quantitative gradation of *ss*, *šš* and more rarely *hh* (usually in Russian borrowings), which is likely an analogy of other types of quantitative gradation (*kassa-* : *kasat* 'a braid' strong stem : nom. pl). Gradation cases *šš* : *š*, *ss* : *s* have also been observed in the Border Karelian dialects of Karelian Proper. (See also Kujola 1910: 37; Liljeblad 1931: 35; OFUJA: 34; Novak 2014: 74–129; Programmy 45; KKMK.)

Dialect differences become quite clear in the gradation of geminates following *l*, *r*, *n*. In all dialects of Karelian Proper in the Republic of Karelia, with the exception of some subdialects of the Porosozero and Padany dialects and the Valday dialect, the geminates *kk*, *tt*, *pp*, *čč* occur in open syllables and are subject to consonant gradation (*čirppi* : *čirpit* 'a sickle : sickles' [nom. sg : nom. pl]; *pertti* / *pirtti* : *pertit* / *pirtit* 'a main room : main rooms'). In other dialects, they are replaced by single consonants which are not subject to gradation (*čirpi* : *čirpit*, *perti* : *pertit*). In most Livvi-Karelian dialects, there is no consonant gradation in this position, i.e.

[61] See chapters 7.1 *Nominal stem types* and 8.1 *Verb stem types*.

geminates are replaced by either a single plosive or the single affricate *č*. Geminates that are subject to gradation may, however, occur in the Syamozero, Vedlozero, Kotkozero, Nekkulitsy, Rypushkalitsy, and Impilakhti dialect and its neighbouring Salmi subdialect (*čirkku* : *čirku* : *čirkat* 'a grasshopper : grasshoppers'; *verkko* / *verko* : *verkot* 'a net : nets'). According to the dialect atlas of the Karelian language, quantitative gradation occurs in most Ludic dialects in the position following the sonorants *l*, *r*, *n*. (See Novak 2014: 77–78; Atlas: maps 54–57; Programmy: 43–45; KKMK.)

Geminates have apparently shortened once individual Karelian dialects had already started to form, and it is likely due to the influence of Russian phonology, as unlike with the consonant clusters *lg*, *rg*, *ng*, *ld*, *rd*, *nd*, *lb*, *rd*, plosives have not become voiced.

In Livvi-Karelian and Ludic, *i* in the diphthong *oi* and in the triphthong *uoi* (< *uo*), in the diminutive suffix *-ine*, and in inflectional affixes (plural nominals and imperfect indicative and conditional verb forms) closes the syllable, thereby warranting the weak grade of quantitative gradation (*kukoi* / *kukuoi* 'a rooster', *kučui* 'called' imperf. ind. 3sg). Conversely, the geminate is retained in Karelian Proper dialects preceding the diminutive suffix *-ne* and nominals ending in *o*. Declension and conjugation follow the basic rule of gradation (*kukko*, *kučču*). (See Genetz 1885: 126; Anisimov 1948: 65–81; Barantsev 1985: 50–51; Rjagoev 1987: 100.)

The quantitative consonant gradation systems of the standard varieties of Karelian correspond to those of the dialects (Table 23). Ahtia's grammar features the additional gradation *hh* : *h*, *ff* : *f*. The regular gradation of geminates that follow sonorants occurs only in standard Viena Karelian, whereas other grammars have unified gradation in this position in favour of the single consonant that is not subject to gradation. In standard Livvi-Karelian and in Ahtia's common literary language, closing diphthongs ending in *i* close the syllable and prompt quantitative gradation in the preceding geminates.

4.2 Qualitative gradation

In Karelian Proper and Livvi-Karelian, qualitative gradation affects plosives that are either between vowels or that follow consonants. They are either replaced by another consonants, deleted *(0)*, or assimilated by the preceding consonant. The most prominent feature of the Ludic consonant gradation system is that it lacks qualitative gradation, e.g. *igäks* tra. sg of *igä* 'age', *leibän* gen. sg of *leib* 'bread', *kädes* ine. sg of *käzi* / *käži* 'a hand' (Genetz 1872: 15; Barantsev 1985: 51–52; see also Turunen 1946: 111–142). The cases where the weak qualitative grade has been recorded in Ludic may either be due to the influence of the phonological systems of the neighbouring Livvi-Karelian and Karelian Proper, or they suggest that this type of consonant gradation may have existed in the history of the language (see Novak 2014: 121–126).

Qualitative gradation in Karelian Proper and Livvi-Karelian has extended to the voiced plosives *g*, *d*, *b*, and in the Viena Karelian dialects of Karelian Proper to voiceless *k*, *t*, *p* between vowels (Table 24). Qualitative gradation also affects consonant clusters whose second segment is a plosive. The weak-grade phoneme is determined by the immediate phonetic environment of the consonant that is subject to gradation.

4.2.1 Quantitative gradation of plosives between vowels

The single plosives *g* / *k*, *d* / *t* are paired with the weak-grade equivalent *v*, *j*, or Ø. The weak-grade pair of the single plosive *b* / *p* is *v*.

The weak-grade pair of the single plosives *g* / *k*, *d* / *t* is determined by their phonetic environment. The weak-grade pair is *v* if the consonant is adjacent to a labial vowel, i.e. the short *u*, *y*, *o*, *ö*, long *uu*, *yy*, and closing diphthongs ending in *u*, *y*, *w* (*lugu* / *luku* : *luvut* 'a number, amount', nom. sg : nom. pl, *haugi* / *hauki* / *hawgi* : *hauvit* / *hawvit* / *havvit* 'a pike : pikes', *uude-* / *uute-* / *uwde-* : *uvvet* / *uwvet* / *uvvet* 'new' strong vowel stem : nom. pl), but in some neighbouring Karelian Proper Padany and Rugozero subdialects a complete elision is possible after a short labial vowel (*lugu* : *lu'ut*).

The weak-grade *j* occurs after the long vowel *ii* or a closing diphthong ending in *i*. However, in Karelian Proper dialects there is a group of lexemes in which the diphthong's semivowel segment typically merges with the weak-grade equivalent (*liiga* / *liika* / *liigu* : *liijat* / *lid'd'at* 'extraneous', *aiga* / *aika* / *aigu* : *aijat* / *ajat* 'time' nom. sg : nom. pl). The consonant *j* is possible after the short *i*, *e* and sometimes also before *e*. However, in this position the plosive is rather commonly deleted (*regi* / *reki* : *riet* / *reit* / *reet* / *rejet* 'a sled' nom. sg : nom. pl). The plosive is completely deleted in other cases as well (*pada* / *pata* : *puat* / *poat* / *pi̯at* / *paat* / *poot* / *puot* 'a cooking pot : cooking pots', *käde- käte-* : *kiät* / *keät* / *köät* / *keet* / *käet* / *käit* / *käjet* 'hands; arms' strong vowel stem : nom. pl). (See also Ojansuu 1905: 33–39; Kujola 1910: 31–32; Ojansuu 1918: 16–23; Liljeblad 1931: 11–20; OFUJA: 36, 45; Novak 2014: 78–116; Atlas: maps 58, 59; Programmy: 25–37; KKMK.) Plosive elision leads to vowel sequences that are foreign to Karelian and which may or may not turn into diphthongs.[62]

An explanation for the differences in the occurrence of weak-grade equivalents in certain positions may be found in Old Karelian and its subdialects. According to Laanest, *v* and *j*, which were originally transitional phonemes, first occurred in Old Karelian only after long vowels and diphthongs. In time, the phenomenon expanded into other positions as well, but differently in different Old Karelian dialects (Laanest 1976: 194). It is likely that the weak-grade *v* entered popular usage fairly quickly. The case of *j* is more complicated. As speakers moved to new locations, the variant that they brought with them became more prevalent. With the coexistence of different variants, the more widely-spread variant either took over, or they were both retained.

In all Karelian Proper and Livvi-Karelian dialects, the labial plosive *b* / *p* alternates between vowels with *v* (*tapa* / *taba* : *tavat* 'a habit; habits', *leibä* / *leipä* / *leiby* : *leivät* 'bread : breads'), with the exception of some Padany, Rugozero, and Shuyezero subdialects in which *b* is not affected by gradation (*taba* : *tabat*, *leibä* : *leibät*), explained by Bubrih as an influence of northern Ludic subdialects (Bubrih 1971: 21).

4.2.2 Quantitative gradation of plosives following sonorants

In the Karelian Proper and Livvi-Karelian dialects, consonant gradation also affects *g* / *k*, *d* / *t*, *b* / *p* which are the second segment of consonant clusters that begin with *l*, *r*, *n*, *m* (Table 25).

The gradation of plosives that follow sonorants differs somewhat between dialects. In the Karelian Proper Viena Karelian and transitional dialects and northern South Karelian dialects (Maslozero, Reboly, Tunguda, and Shuyezero dialects; also northern subdialects of Rugozero) the palatal plosive *g* / *k* is deleted in the weak grade (*nälgä* : *nälkä* : *nälät* 'hunger' nom. sg : nom. pl, *härgä* / *härkä* : *härät* 'bull : bulls'). In other Karelian Proper dialects and in Livvi-Karelian, it assimilates with the preceding sonorant (*nälgä* / *nälgy* : *nällät*, *härgä* / *härgy* : *härrät*). Leskinen attributes the difference in the weak grade to Old Livvi-Karelian, which had already formed before the 14th century and had a strong influence in the 1300s and 1400s on the language in the Priozersky district, leading to the formation of the southern dialect of Old Karelian. By that time, the weak grade equivalents of dental and palatal plosives (*d* : *t*, *g* : *k*) had

[62] See chapter 3.1 *Vowel alternation in stressed syllable*.

been unified and these forms spread into the whole southern part of the district, from which Karelians later moved to the centre regions of the Republic of Karelia and also to Inner Russian regions (Leskinen 1990: 78). The consonant clusters *nk* / *ng* are unaffected by consonant gradation in all dialects (*hengi* / *henki* : *henget* / *henket* 'spirit : spirits').

The gradation of *d* / *t* after a consonant is similar in Karelian Proper and Livvi-Karelian. After a voiced consonant, the dental plosive *d* / *t* is assimilated with the preceding consonant (*peldo* / *pelto* : *pellot* 'a field : fields', *parda* / *parta* / *pardu* : *parrat* 'beard : beards', *lindu* / *lintu* : *linnut* 'a bird : birds'). In some verb forms of Livvi-Karelian dialects, the weak-grade geminate is shortened ('*työndiä* : *työnnän* / *työnän* 'to send : I send'). In the Karelian Proper Dyorzha dialect and in some Tolmachi and Ves'yegonsk subdialects, the geminate *rr* is shortened after a vowel, but the vowel itself becomes long (*härgä* / *härg* : *häärät*, *parda* / *pard* : *paarat*).

The labial plosive *b* / *p* turns in the weak grade into *v* after *l* or *r* (*varbahat* / *varpahat* : *varvaš* / *varvas* 'toes : a toe') and assimilates with the preceding consonant in *mb* / *mp* clusters (*lambahat* / *lampahat* : *lammaš* / *lammas* 'sheep : a sheep') (see also Kujola 1910: 31–32; Ojansuu 1918: 19–24; Liljeblad 1931: 14–20; OFUJA: 36; Leskinen 1998: 379; Novak 2014: 78–116; Atlas: maps 60–62; Programmy: 51; KKMK).

In the aforementioned position, the grade is mostly determined by whether the syllable is open or closed, but in Livvi-Karelian also by whether the syllable is stressed. There is no post-sonorant gradation after the second syllable of the word (Karelian Proper: *emäntä* / *emändä* : *emännät*, Livvi-Karelian: *emändy* : *emändät*), which is likely a Veps influence (see Kettunen 1940: 285).

4.2.3 Qualitative gradation of plosives after voiceless consonants

There are significant differences in the gradation of *k*, *t*, *p* after the fricatives *h*, *s*, *š* and the dental plosive *t* in both between the Karelian main dialects and between their respective dialects.

The most prominent feature in Livvi-Karelian is the lack of plosive gradation after *h*, *s*, *š*, *t* in a voiceless environment (*nahku* : *nahkat* 'leather : leathers', *laskie* : *lasken* 'to lower : I lower', *pitky* : *pitkät* 'long : long ones', *lehti* : *lehtet* 'a leaf : leaves', *mustu* / *muštu* : *mustat* / *muštat* 'black : blacks'). This is likely a Veps influence during or before the formational phase of Livvi-Karelian.

In the dialects of Karelian Proper, plosive gradation after voiceless consonants is quite varied. In most dialects, the consonant cluster *hk* is unaffected by gradation (*nahka* : *nahkat* 'leather : leathers'). There are two variants, one with and one without gradation (*nahka* : *nahkat* / *nahat*), in all transitional dialects and also in the Porosozero dialect and northern Tunguda subdialects. Several other dialects also show traces of such gradation. For example, in all Karelian Proper transitional dialects, particularly in South Karelian and Viena Karelian dialects, the *hk* : *h* alteration occurs in verb forms. In the majority of these dialects, gradation may also occur after diphthongs (*tahkuon* : *tahota* 'I grind : to grind', *riähkä* / *reähkä* : *riähät* / *reähät* 'a sin : sins'). Such distribution confirms that the phenomenon had already been partly lost in the eastern parts of its distribution area in Old Karelian.

In the gradation of the clusters *šk*, *sk*, the plosive is completely deleted in Karelian Proper Viena Karelian and transitional dialects, and also in Tunguda, Maslozero, Shuyezero, and Reboly dialects and the northern subdialects of Rugozero (*koški* : *košet* / *kožet* / *kozet* 'a rapid : rapids'). Gradation may be missing in the Border Karelian dialects of Karelian Proper. In other South Karelian dialects of Russian Karelia and in the Valday dialect, the plosive *k* assimilates with the consonant (*koški* : *koššet*). In most Inner Russian enclave dialects both weak-grade pairs occur (the single *š*, *s* occur in them in the weak grade mostly after diphthongs and long

vowels) (*kaški* : *kaššet* 'a swidden : swiddens', *laiska* : *laisat* 'lazy : lazy ones'). In most South Karelian dialects, the geminate weak-grade pair is likely an analogy of the gradation of the clusters *lk* / *lg* : *ll*, *rk* / *rg* : *rr*.

The gradation *tk* : *t* (*pitkä* : *pität* 'a long one : long ones') is typical of nearly all Karelian Proper dialects, with the exception of most Border Karelian subdialects.

The gradation of dental plosives after voiceless consonants is homogeneous within the Karelian Proper dialects. The consonant cluster *ht* is paired with the weak grade *h*, i.e. the plosive is deleted (*ahtahat* : *ahaš* 'the cramped ones : cramped'). The clusters *st*, *št* are paired in the weak grade with *ss*, *šš*, which has resulted from assimilation (*mušta* / *musta* : *muššat* / *mussat* 'black : black ones'). A lack of gradation has only been reported in the eastern subdialects of the Border Karelian Karelian Proper dialects of Suystamo and Suoyarvi (*mustat* : *mustat*), which is most likely an influence of their neighbouring Livvi-Karelian dialects. (See also Kujola 1910: 31–32; Ojansuu 1918: 26–29; Liljeblad 1931: 14–19; OFUJA: 34–35; Leskinen 1998: 379; Novak 2014: 78–116; Atlas: maps 63–67; Programmy: 45–49; KKMK.)

There are significant differences in the consonant gradation systems of Karelian dialects. It should also be noted that qualitative gradation is losing its productivity in Karelian Proper and Livvi-Karelian, as can be seen particularly in late borrowings, proper nouns, and neologisms, but it also affects native words. Quantitative gradation, however, is still quite productive in all Karelian main dialects.

The prominent dialect differences in the qualitative gradation system of Karelian cannot have gone unnoticed during the standardisation of its different varieties (Table 27).

Qualitative gradation in Bubrih's common literary language affects *g*, *d*, *b* both on the boundary of the first and second syllable and also further in the word, as in Karelian Proper dialects. The single plosives *g*, *d* are paired with *v* in the vicinity of labial vowels and are deleted between *a-a*, *ä-ä*. In other positions there is considerable variation in the Karelian dialects. Bubrih chose to unify them: plosives are paired with *j* if they follow *i*, *e* or precede *e* (both short and long vowels and diphthongs whose second segment is *i*). According to Bubrih, such cases are "typical of Livvi-Karelian subdialects, and they fit the rule better and are mutually intelligible compared to the forms in Central Karelian, North Karelian, and the Kalinin dialect".[63] In Bubrih's grammar, *b* is paired with the weak grade *v*. In *ld*, *rd*, *nd*, *mb* plosives assimilate in the weak grade with the preceding consonant, which is typical of all Karelian Proper and Livvi-Karelian dialects. Consonant clusters are based on the Karelian Proper South Karelian and Livvi-Karelian gradation *lg* : *ll*, *rg* : *rr*. The gradation of plosives that follow voiceless consonants is based on Livvi-Karelian, meaning that they are unaffected by gradation so as to make word forms containing those consonant clusters intelligible to all Karelians.

In standard Viena Karelian qualitative gradation affects the plosives *k*, *t*, *p*. Gradation occurs both on the boundary of the first and second syllable and also further in the word: the grade is determined in most cases by whether the syllable is open or closed. The gradation mechanism has been greatly unified in comparison to the variance that one sees in the dialects. The single consonants *k* and *t* are paired with *v* after long labial vowels and diphthongs ending in *u*, *y*, or if they are followed or preceded by a labial vowel; *j* occurs after the short *i* and before and after *i* and *e* (except in the lexeme *käsi* 'a hand, an arm' : *käteh* : *kiäššä* ill. : ine.) and after the long *ii,* short *i*, and a diphthong ending in *i* (in *aika* 'time' and *poika* 'a son; a boy' the diphthong shortens: *ajat* 'times', *pojat* 'boys'). In other cases, the plosive is deleted, followed by diphthongisation. The labial *p* has the weak grade pair *v*. In *lt*, *rt*, *nt*, *st*, *mp*, plosives assimilate with the preceding consonants, thus forming a geminate. Plosive affected by gradation are

[63] South Karelian, Viena Karelian, and Tver Karelian, respectively.

deleted in the weak grades of *lk*, *rk*, *tk*, *sk*, *ht*. The cluster *hk* has been unified to be affected by gradation in all positions, both in nominals and verbs. The cluster *nk* is unaffected by gradation.

Both in Ahtia's common literary language and standard Livvi-Karelian qualitative gradation affects the voiced plosives *g*, *d*, *b* between vowels and after consonants. In standard Livvi-Karelian gradation is determined by whether the syllable is open or closed and also whether it is stressed or unstressed. In the gradation of single plosives, the weak grade is determined by the phonetic features of the surrounding vowels. The weak grade pair *v* occurs after and before labial vowels, and also after long labial vowels and diphthongs ending with *u*, *y*. The pair *j* occurs after the long vowel *ii* and after diphthongs ending with *i*. Standard Livvi-Karelian also allows the weak grade *j* after the short *i* and before *a*, *ä*. In other cases the plosive is deleted, followed by diphthongisation. The labial *b* is paired in the weak grade with *v*. The plosives in *lg*, *rg*, *ld*, *rd*, *nd*, *mb* are assimilated in all positions with the preceding consonants, thus forming geminates.

In the Karelian language, consonant gradation plays an important part in inflection and derivation. When an affix is added to the word stem, based on its structure it usually either forms an open syllable at the end of the stem, meaning that the strong grade is retained, or closes the syllable, introducing a weak grade into the stem. However, there exists a group of inflectional and derivational forms that are not explicable solely by phonetic factors. Some of the grammars used in this study address these kinds of exceptions in their chapters on gradation (Genetz 1880: 168; Genetz 1884: 125–126; Ahtia 1938: 28–29; Anisimov 1939: 37; Anisimov 1948: 51–93; Rjagoev 1977: 50–51; Barantsev 1985: 49–51; Rjagoev 1987: 105–107; Zaikov 2002: 35; Zaikov 2013: 53–54). Other grammars mention these phenomena as part of their descriptions of inflectional and derivational systems.

The exceptions in question can be explained by language history. Due to certain phoneme changes, e.g. the changing of weakened geminates into single consonants, the loss of weak-grade spirants, vowel contraction, etc., open syllables were replaced by closed syllables and, conversely, closed syllables were replaced by open syllables. These relatively late changes were capable of altering the historical phonetic forms of word stems. Therefore, the current forms of some stems hark back to their historical original forms. Some derivational examples include the Karelian Proper *ijäkäs* 'elderly' < *ikä* / *igä* 'an age', *kivutoin* 'painless' < *kibu* / *kipu* 'pain', and the Livvi-Karelian *jallatoi* 'legless' < *jalgu* 'a leg'. In these examples, the suffixes *-kAs*, *-tOin* are preceded by the weak grade, even though the stem ends with an open syllable. Inflectional forms contain a geminate in the derivational affix: *ijäkkähät* 'elderly ones', *kivuttomat* 'painless ones', *jallattomat* 'legless ones'. The weak grade has apparently been determined in particular by the geminate in the derivational affix, as the geminate's first segment has closed the stem-final syllable. In time, the weak grade has established itself also in forms that contain an open final syllable. For example, a nominative singular with an open final syllable contains a weak grade (Karelian Proper, Livvi-Karelian *late* 'a floor'), whereas the nominative plural with the affix closing the syllable contains the strong grade (*lattiet* 'floors'). This exception can be explained easily by the word's originally having ended in *h*: **lateh* : **lattehet*. In time, the consonant *h* was dropped, but it did not affect the word's gradation.

This is also exemplified by the dictionary forms of contraction verbs (1st infinitive ending with *-ta* ~ *-tä*): Karelian Proper, Livvi-Karelian: *kerritä* : *kergien* : *kerkien* 'to make it in time : I'll make it in time', *hypätä* : *hyppiän* / *hyppyän* 'to jump : I jump'. 1st infinitive forms contain the weak grade even when there is no phonetic rule to necessitate it. Contraction verbs have two stems: the vowel stem *hyppiä-* < **hyppäδä* and the consonant stem *hypät-*. The latter is used to form the 1st infinitive by adding to it the affix **-täk* (*hypätä* < **hypät͡+täk*). The dental

plosive *t* has introduced gradation into the verb stem, whereas the *k* in the affix has prompted quantitative gradation, as the merging of the affix has formed the double consonant *tt* (see e.g. OFUJA: 85–86).

In the inflectional system of Karelian, a weak grade may also occur in an open syllable and a strong grade in an open syllable. What matters is the morpheme, not its phonological structure. The formation of most inflectional forms in Karelian main dialects is still governed by the rule that when an affix causes a stem-final syllable to turn into a closed syllable, the plosive segment is altered, but if the stem ends with an open syllable, a weak grade is not possible. Therefore, in direct gradation, affixes that consist of either one consonant (*C*), two consonants and a vowel (*CCV*), or two consonants and two vowels (*CCVV*), are added to the weak stem, whereas affixes consisting of a single vowel (*V*), a consonant and a vowel (*CV*), or a consonant, vowel, and a consonant (*CVC*), i.e. affixes that form syllables, are added to the strong stem. However, with some nominals (the illative case and possessive forms in all dialects, but also the essive, allative, prolative, and terminative in Livvi-Karelian and Ludic, the partitive in Ludic, etc.) and some verb forms (negative indicative forms, imperatives and some conditional and potential forms in all main dialects, etc.) there are exceptions to the basic rule of consonant gradation[64] (see also Novak 2014: 137–169). These exceptions can be explained by the affixes' formation histories: those forms whose stems originally contained the weak grade have retained it, regardless of the stem's changing to end with an open syllable, and correspondingly the strong grade has remained unaffected, even though the syllable has eventually closed. Some of the exceptions occur in all dialects, while the others occur only in certain main dialects and dialects. Regarding nominals, most exceptions occur in Livvi-Karelian and Ludic, and also in the Karelian Proper Border Karelian dialects that have been heavily influenced by Livvi-Karelian. Only the formation of the illative is common to all main dialects. With verbs, the situation is different. All main dialects basically share the same exceptions to the main rule of consonant gradation. The unified morphological systems of the contemporary standard varieties of Karelian contain fewer exceptions than the dialects on which they are based.

The phenomenon of consonant gradation and other consonant alternations that occur during inflection are typical of all main dialects of Karelian as well as to their standard varieties. These other alternations include, e.g. *d* / *t* > *z* / *s* / *ž* / *š* (*vuodeh* / *vuoteh* : *vuozi* / *vuoži* / *vuosi* / *vuoži* : *vuotta* / *vuottu* 'a year' ill. sg : nom. sg : nom. pl), *ht* : *ks* (*yhte-* : *yksi* 'one' strong vowel stem : nom. sg), *m* : *n* (*lumi* : *lunda* / *lunta* / *lundu* 'snow' nom. sg : part. sg, *avoamet* / *avuamet* / *avaimet* : *avoan* / *avuan* / *avain* 'keys : a key'), *h* : *š* / *s* (*miehet* : *mieš* / *mies* 'man : men', *ahtahat* : *ahaš* / *ahas* / *ahtas* / *ahtaz* 'cramped ones : cramped'), *ks* / *kš*: *s* / *š* (*verekšet* / *verekset* : *vereš* / *veres* 'fresh ones : fresh'), *pš* / *ps* : *š* / *s* (*lapši* / *lapsi* : *lašta* / *lasta* / *lastu* 'a child' nom. sg : par. pl).[65] (see Genetz 1880: 172–173; Genetz 1884: 129–130; Kujola 1910: 47–48; Ahtia 1938: 29–31; Anisimov 1948: 94–95; Manžin 1964: 9–10; Rjagoev 1987: 121–123). The mechanism of such changes differs significantly from that of regular radical gradation, but its wide distribution not only in Karelian but other Finnic languages as well points to its having originated in Late Proto-Finnic, the predecessor of the Finnic languages (see OFUJA: 31–33). Most likely these changes have formed in parallel with plosive gradation, perhaps even before it, and they have become phonological in nature, which has allowed them to remain basically unchanged (Laanest 1972: 117; Hint 1981: 247).

[64] Detailed in the *Morphology* section.

[65] These and other consonant alternations are detailed in chapter 7.1 *Nominal stem types*.

5 SYLLABLE AND WORD STRUCTURE

A **syllable** is a phonetic-phonological unit between a sound and a stress-group. A syllable is a single articulatory unit. (LÈS.) Normative grammars of Karelian detail the division of words into syllables, as it has an important part in defining the hyphenation rules for orthographical purposes.

The **nucleus**, or the core of the syllable, is always a vowel segment — a short vowel, diphthong, long vowel, or triphthong. A single short vowel or a diphthong can both constitute a syllable as such.

The Karelian language typically features the following types of syllables:

– syllables beginning with a consonant (*ka-la* 'a fish') or a vowel (*i-gä* / *i-kä* 'age');

– open syllables ending with a vowel (*ša-na* / *sa-na* 'a word') and closed syllables ending with a consonant (*ait-tah* 'into the granary');

– short syllables in which the syllable-forming segment is a short vowel (*ky-ly* 'a sauna'), and long syllables, which include all closed syllables and those whose nuclei consist of a long vowel, diphthong, or triphthong (*mai-doh* 'into milk', *kui-vuau / kui-voau* '[it] dries').

A word may be monosyllabic, disyllabic, or polysyllabic. The polysyllabic word structure in Karelian is due to its agglutinative manner of expressing grammatical meanings. Bi- and polysyllabic words have the syllable boundary before single consonants between vowels or between the segments of consonant clusters and geminates (*o-tet-tih* 'they took'), while each new syllable may begin with a single vowel. The segments of a word-initial consonant cluster belong to the same syllable (*bri-ha* 'a young man'). (See Bubrih 1937: 13–14; Anisimov 1939: 29, 35–36; Rjagoev 1977: 40–41; Barantsev 1985: 4–5; Rjagoev 1987: 71; Markianova 2002: 15; Zaikov 2002: 27–28; Pyöli 2011: 19–20; Zaikov 2013: 55–56.)

The first syllable of the word may be either short or long, or open or closed, and it may begin with either a consonant or a vowel. The most common word-initial syllable structures are *CV*[66], *CVC*, *CVV*, *CVVC*, *V*, *VC*, *VV*, and *VVC*. Word-initial consonant clusters are not typical of Karelian phonology, but they occur in onomatopoeic words and Russian borrowings.

Only the first syllable may begin with a vowel or a consonant cluster. The second and later syllables typically feature one of the following structures: *CV*, *CVV*, *CVC*, *CVVC*. The consonants of a geminate usually behave similarly to two-segment consonant clusters.

The syllable and word structure in the Karelian language is presented in Table 28. Syllable structures that occur mostly in Russian borrowings and onomatopoeic words are presented in cells with a grey background. The table ignores any characteristics of those dialects in which syncope and apocope are prevalent.

In native Karelian lexicon, the most widely-spread syllable structures are *V*, *VV*, *VC*, *CV*, *CVV*, *CVVV*, *CVC*, and *CVVC*. Dialects with syncope and apocope, i.e. Ludic dialects and the Karelian Proper Dyorzha dialect, feature additional syllable structures due to word-initial syllables ending with consonant clusters or geminates (*VCC*, *VVCC*, *CVCC*, *CVVCC*) and their word-final equivalents (*CVCC*, *CVVCC*). In these dialects, the number of monosyllabic words has increased considerably also due to syncope. (See Barantsev 1975: 73–90; Rjagoev 1987: 71–81; Barantsev 1985, 4–8; Rjagoev 1987, 71–81.)

[66] *C* = consonant, *V* = vowel.

6 WORD STRESS

Stress refers to the phonetic emphasis of a certain unit among a group of similar units (LÈS). In the Karelian language, every content word has stress. Stress is important as it forms the overall shape of the word and its boundaries.

Karelian features dynamic word stress. Stressed syllables are articulated more emphatically than unstressed ones; however, stressed and unstressed syllables still retain their quality, meaning that reduction is not typical of Karelian, unlike Russian.

Word stress in Karelian is constant. The primary stress always falls on the first syllable (*pái-men* / *pái-moi* 'a shepherd'), with the exception of some late Russian borrowings, in which the primary stress may sometimes fall on other syllables. In the standard varieties of Karelian stress can only be on the first syllable. The Karelian language always features secondary stress, which usually falls on every odd syllable of a compound noun, excluding the last one, while the second and even syllables remain unstressed (*méč-čä-niek-ka* / *méč-čy-níek-ku* 'a hunter'). A primary and secondary stress cannot, therefore, fall on consecutive syllables. The alternation of stressed and unstressed syllables gives Karelian its rhythmic nature. The final syllable is usually unstressed. In dialects with apocope, syllables with primary and secondary stress have moved closer to one another, which results in the last syllable retaining a secondary stress (Ludic: *méč-ník* / *méč-ník-ke*). In compound nouns the primary stress falls on the first syllable of the first component and the secondary stress on the first syllable of the second component (*pý-hä|pä́i-vä* / *pý-hä|pä́i-vy* / *pý-hä|pä́iv* 'Sunday'). In spoken dialects, the stress may be lost or it may move in the speech stream. (See Genetz 1870: 6–7; Genetz 1880: 168; Genetz 1884: 125; Kujola 1910: 15; Nirvi 1932: 21; Leskinen 1933: 43; Bubrih 1937: 14; Ahtia 1938: 10; Anisimov 1939: 31; Beljakov 1948: 8; Palmeos 1962: 24; Rjagoev 1977: 41; Barantsev 1975: 197; Rjagoev 1987: 83–84; Markianova 2002: 19; Zaikov 2002: 29; Pyöli 2011: 20.)

In Russian, both intensity and duration are important factors of stress, which is why in the phonetic adaptation process of Russian borrowings stressed syllables are replaced by long vowels or diphthongs, while the stress moves to the first syllable in words that do not have a word-initial stress in Russian (*sámovuara* / *sámvuara* / *sámovuaru* < *самова́р* [*samovár*]).

PHONETICS AND PHONOLOGY: GRAMMARS AND ATLAS MAPS

The greatest number of individual characteristics that separate the Karelian main dialects and also dialects from each other are found in the sound system of the Karelian language. The essential conclusions drawn in the phonetics and phonology sections of this study are also reflected in the corresponding Karelian dialect cluster maps. A phonetic characteristic that distinguishes dialects includes, for example, the distribution of opening diphthongs (chapter 1.6.1 *Opening diphthongs*).

The Ludic main dialect is distinct in Cluster map 1 (cluster 4), as it does not typically feature qualitative consonant gradation of single plosives or the subsequent contraction of vowels. Livvi-Karelian dialects appear on the map as two groups: the western group (Tulomozero, Vidlitsa) (cluster 9), which is characterised by the use of long vowels; and the eastern group, which also includes the Karelian Proper and Livvi-Karelian dialects of Border Karelia. The eastern group appears on the map as two overlapping clusters: the subdialects that mostly use the diphthongs *ua*, *iä* (*mua* 'ground', *piä* 'a head') (cluster 7), and those that use mostly *oa*, *eä* (*moa*, *peä*) (cluster 23).

Northern Syamozero subdialects (Vokhtozero, Syapchezero, Titnavolok), which are close to the South Karelian dialects of Karelian Proper, stand out, for instance, due to their weak-grade pair variants of single plosives in the word stem (*lajes* / *laes* ine. sg of *lagi* 'a ceiling', *käjet* / *käet* 'hands', cf. Livvi-Karelian: *lais*, *keet*) and due to the use of the opening diphthong *ie* at the end of the word (*pimie* 'dark', cf. Livvi-Karelian: *pimei*).

Karelian Proper appears on the map as five groups:

1) the Viena Karelian and transitional dialects group, which are close to the South Karelian Tunguda, Shuyezero, and Maslozero subdialects, and northern Tver Karelian dialects (Ves'yegonsk and Tolmachi dialects) in which the diphthongs *ua*, *iä* / *yä* (*mua*, *piä*) occur (cluster 105);

2) the South Karelian Rugozero, Reboly, and eastern Padany subdialects group, which differs slightly from the previous group in terms of certain weak grade equivalents of single plosives between vowels (*veissä* 'in the water', cf. Viena Karelian: *veessä*) (cluster 80);

3) a group of South Karelian Tolmachi and Dyorzha dialects, which does not significantly differ from the first group in its use of opening diphthongs, but it has some unique characteristics in the gradation of single plosives (*vejessä*) (cluster 163);

4) a group of South Karelian Porosozero, southern Myandusel'ga, western Padany and their neighbouring Rugozero subdialects that use mostly the diphthongs *oa*, *eä*, or long vowels in the case of the Padany and Rugozero subdialects (*moa* / *maa* / *moo*, *peä* / *pee*) (cluster 69);

5) a group of South Karelian eastern Ves'yegonsk subdialects and southwestern Tolmachi subdialects featuring the diphthong *ja̮* (*mja̮*) (cluster 151).

It is possible to also represent the distribution of closing diphthongs ending with *i* (chapter 1.6.2 *Closing diphthongs*) in the cluster map form. The following examines the maps depicting the occurrence of *s* after a diphthong ending with *i* and the closing diphthong in an unstressed open syllable.

In Cluster map 2, the borders between the main dialects of Karelian are quite distinct: Karelian Proper (cluster 102) typically retains the diphthong ending with *i* as it precedes the sibilant *s* (*laiska* 'lazy'), loses the second segment of the original diphthong as it precedes the

suffix *-ne* / *-ni* (*-ze-* / *-se-* / *-že*) (*akkane* / *akkani* 'an old woman', *akkazet* / *akkaset* / *akkažet* 'old women') and in an unstressed open syllable (*rebo* / *repo* 'a fox'), with the exception of southern Myandusel'ga subdialects (cluster 71) in which the word-final diphthong is present (*reboi*). The Karelian Proper dialects of Border Karelia (cluster 189) the second segment of the diphthong is lost preceding *s* (*lašku*).

Livvi-Karelian as a whole is characterised by the loss of *i* before *s* and the retention of the diphthong in an unstressed syllable (*lašku*, *reboi*). The suffix *-ne* (*-ze-*) divides the main dialect into three groups: the northern group (Vedlozero, Syamozero) that retains the diphthong (*akkaine*, *akkaizet*) (cluster 22); the southern group (Kotkozero, Nekkulitsy, Rypushkalitsy, Vidlitsa) that loses the diphthong preceding *-ze-* (*akkaine*, but *akkazet*) (cluster 1); and the western group (Tulomozero, Salmi, Impilakhti) that loses the diphthong in all positions (*akkane*, *akkazet*) (clusters 25, 187).

Like Livvi-Karelian, Ludic has also lost the *i* from the diphthong preceding *s* (*lašk* / *laške*). The closing diphthong is retained in most Ludic subdialects (North, Central, and South Ludic) before the suffix *-ne* (*-ze-* / *-že-*) (*akkaine*, *akkaizet*, *akkaižet*). Central Ludic and the northern subdialects of South Ludic (Spasskaya Guba, Munozero, Pyalozero, Vidany, Matrosy, Pryazha) (cluster 40) distinctly feature a diphthong in an unstressed open syllable (*reboi*) instead of a triphthong (*rebuoi*), which would be more typical of Ludic. Mikhailovskoye (cluster 4) subdialects feature a different diphthong (*rebuo*) and a long vowel preceding the suffix *-ne* (*-že-*) rather than a closing diphthong (*akkaane*, *akkaažet*).

Cluster map 3 illustrates the occurrence of word-final vowels, which has been detailed in chapter 1.4 *Word-final vowel alternations*.

The occurrence of word-final *a*, *ä* divides the Karelian subdialects into four groups:

1) Karelian Proper (excluding the Dyorzha dialect), which retains the word-final vowels (*adra* 'a plough', *ikkuna* 'a window', *tavara* 'a thing, a belonging') (cluster 71);

2) Livvi-Karelian, which features a word-final *u*, *y;* or *Ø* in certain polysyllabic lexemes (*adru*, *ikkun*, *tavar* / *tavaru*) (clusters 2, 8, 9);

3) a group of North and Central Ludic and Mikhailovskoye subdialects in which the final vowel is typically deleted (*adr*, *ikkun*, *tavar*) (cluster 4);

4) a group of South Ludic and southern Central Ludic subdialects in which the word-final *e* occurs in disyllabic nominals (*adre*, *ikkun*, *tavar*) (cluster 36).

Cluster map 4 illustrates the distribution of voiced and voiceless plosives and sibilants (see Chapter 2.1 *The opposition of voiced and voiceless consonants*).

The map shows three distinct regions that differ from one another in terms of the distribution of voiced and voiceless plosives and sibilants:

1) the Livvi-Karelian and Ludic main dialects and the Karelian Proper South Karelian dialects that feature voiced consonants (*abu* 'apu', *pada* 'a cooking pot', *olgi* 'straw', *aiza* / *aiža* 'a pole') (cluster 1);

2) the Viena Karelian dialects of Karelian Proper, in which the voiced consonants are replaced by voiceless ones (*apu*, *pata*, *olgi*, *aisa* / *aiša*) (cluster 111);

3) the transitional region (Yushkozero, Panozero) which typically features voiceless plosives and voiced sibilants (*apu*, *pata*, *olki*, *aiza* / *aiža*) (cluster 113). This feature in particular is an essential criterion on which the main dialect of Karelian Proper is divided into the Viena Karelian and South Karelian dialect groups. The border region of these groups has in some studies been distinguished as the transitional region of Karelian Proper.

Cluster map 5 supports the assertion that the Karelian language is divided into three dialect groups, which is detailed in chapter 2.2 *Distribution of close and open sibilants* (*s* / *š*, *z* / *ž*). The map shows three wide dialect regions:

1) The northern region (Viena Karelian, transitional dialects, Reboly, Rugozero, Tunguda, Maslozero, Shuyezero) (cluster 95), similar to Tver Karelian dialects (cluster 162), with the exception that open sibilants are common in Tver Karelian, whereas close sibilants are mainly used after *i* (*šada* 'a hundred', *šilmä* 'an eye', *istuu* 'sits', *vuoši* / *vuoži* 'a year'). Cluster 82 has also been connected to this group. It represents a group of northwestern Padany and eastern Ves'yegonsk subdialects in which front vowels are most often preceded by a close sibilant but in other positions, such as before *i*, open syllables occur (*šada*, *silmä*, *ištuu*, *vuoži*).

2) The southern region, which is represented by three clusters: cluster 8 (the Livvi-Karelian Kotkozero, Vidlitsa, Vedlozero, Tulomozero, and Syamozero dialects, and the Karelian Proper dialects of Border Karelia, and some individual Porosozero subdialects), cluster 1 (the Ludic South Ludic, Mikhailovskoye, and southern Central Ludic subdialects, and the Livvi-Karelian Nekkulitsy, Rypushkalitsy, Impilakhti, and Salmi dialects) and cluster 57 (Northern and Central Ludic and the Karelian Proper Myandusel'ga and Porosozero subdialects). They are characterised as a whole by the wide use of close sibilants, while open sibilants occur mostly after *i* (**i*) (*sada*, *silmä* / *šilmä*, *ištuu* / *istuu*, *vuozi* / *vuoži*). Cluster 57 is also unique in its use of open sibilants before *i* and, in Ludic subdialects, before other front vowels as well. Cluster 8 differs from the others in that it is possible for the close sibilant to occur after *i*.

3) The transitional region, represented by southeastern Padany subdialects and their neighbouring Myandusel'ga subdialects, in which mainly close sibilants are typically used in all positions (*sada*, *silmä*, *istuu*, *vuoži*) (cluster 80).

Consonant palatalisation, which varies in quality and extent in the Karelian language, is also quite helpful in identifying the various Karelian dialect and subdialect groups (see chapter 2.3 *Consonant palatalisation*).

Three wide regions are distinct in Cluster map 6 depicting the distribution of consonant palatalisation in Karelian. It is rarest in Livvi-Karelian and its neighbouring Karelian Proper dialects of Border Karelia and South Ludic subdialects (*tie* 'a road', *nenä* 'a nose', *lehmä* 'a cow', *rihma* 'a thread') (cluster 2). It is slightly more common in the Karelian Proper Viena Karelian dialects (*t'ie*, *n'enä* / *nenä*, *lehmä* / *l'ehmä*, *rihma*) (cluster 113). Palatalisation is most common in the South Karelian dialects of Karelian Proper and in the northern dialects of Ludic (North and Central Ludic) and in the Mikhailovskoye dialects: clusters 57 and 126, in which there are only minor differences in the palatalisation of dentals and alveolars (*d*, *l*, *n*, *r*, *t*, *s*, *z*) in certain positions. Therefore cluster 55, for example, which represents the South Karelian dialects of Karelian Proper and the northern Ludic dialects, differs from the rest in terms of the palatalisation of *r*.

Metathesis of the consonant clusters *nh* / *hn* (see chapter 2.6 *Consonant clusters*) is represented in Cluster map 7 by two intertwining clusters. The prominence of *hn* in the Ludic region and its neighbouring areas aptly illustrates the distribution of this phenomena (cluster 3).

A general impression of consonant gradation in Karelian (see chapter 4 *Consonant gradation*) may be formed on the basis of cluster map 8, which draws on the data in the dialect atlas of the Karelian language. The region's division into three wide clusters depicts quite clearly the division of the Karelian language into three main dialects, which shows that consonant gradation in particular is one of the distinctive markers in Karelian's dialect division. Qualitative gradation is most varied in Karelian Proper dialects (*hambahat* : *hammas* / *hammaš* 'teeth : a tooth', *työndiä* / *työndeä* : *työnnän* 'to push : I push', *vanhembi* : *vanhemmat* 'a parent : parents') (cluster 69). The most distinctive feature of Ludic is its total lack of qualitative gradation (*hambas*, *työndän*, *vanhembat*) (cluster 4). Livvi-Karelian lacks the

gradation of plosives in a voiceless environment or if they are located further in the word than in the second syllable, which is apparent in the cluster map (*hammas*, *työnän*, *vanhembat*) (cluster 1).

The comparison of cluster maps which depict the vowels and consonants as a whole in the Karelian language leads to some interesting observations.

In the lower third of maps 9 and 10 (Livvi-Karelian and Ludic), clustering runs into opposite directions: vertically in the Vowels map, and horizontally in the Consonant maps, thus demonstrating that there is a significant number of differences in the vowel systems, suggesting the existence of two independent main dialects. Characteristics of the consonant system distinguish the northern and southern Ludic subdialect groups (North and Central Ludic, and South Ludic and Mikhailovskoye, respectively) which share some features with the northern Livvi-Karelian dialects. In addition, the Mikhailovskoye dialect is apparent on level 1 of both maps, whereas on level 3 the North and Central Ludic subdialects merge with the South Karelian dialects of Karelian Proper in terms of their consonant system, and in terms of vowels all Livvi-Karelian and Ludic subdialects form into a single cluster.

Two subdialect groups are quite apparent in Livvi-Karelian: the western (Tulomozero, Vidlitsa) and eastern one (Syamozero, Vedlozero, and Kotkozero; Nekkulitsy and Rypushkalitsy differ in terms of consonants). The westernmost Salmi and Impilakhti dialects belong to the eastern cluster, while the consonant system of these dialects forms a separate cluster together with the Karelian Proper dialects of Border Karelia, which in turn merge with other South Karelian dialects of Karelian Proper in terms of their vowels.

The Karelian Proper Viena Karelian and transitional dialects form a separate cluster both in terms of vowels as well as consonants. Characteristics of their vowel system also connects the South Karelian Maslozero, Shuyezero, and Tunguda dialects into this group, while their consonant system forms a separate cluster with the Reboly and Rugozero dialects. Padany subdialects and their neighbouring Rugozero and Myandusel'ga subdialects are clearly divided into a northwestern and a southeastern group, which are independent in terms of their consonants, but merge with other Karelian Proper South Karelian subdialects (Porosozero and Reboly) in terms of their vowels.

The Porosozero dialect and its neighbouring western Myandusel'ga subdialects forms an individual cluster in map 10 (Consonants), while their vowel system merges with northwestern Padany subdialects and Karelian Proper dialects of the Border Karelia. The Tver Karelian subdialects divide in these maps into three groups: the northwestern, northeastern, and transitional groups, the latter of which is close to the first group in terms of vowels and to the second one in terms of consonants.

Level 3 of the cluster maps clearly shows the unity of Karelian Proper, Livvi-Karelian, and Ludic in terms of vowels, while the analysis of the consonant system reveals one more cluster, which connects the northern Ludic dialects to the Karelian Proper Padany, Porosozero, and Myandusel'ga dialects.

MORPHOLOGY OF KARELIAN

Karelian, like all Finnic languages, is agglutinative in nature (OFUJA: 48). This means that words are inflected by adding suffixes to their stems. Agglutinative languages typically have well-developed affixal inflectional and derivational systems, unified inflection types, affixes that vary only phonetically, affixes that carry only a single grammatical meaning, and the lack of significant sound variation (LÈS). Karelian fits this description to an extent but is far from being purely agglutinative. It has developed so that its inflectional system also includes features of fusional languages to a significant degree, namely, vowel and consonant alternations in the word stem, stem-final vowel alternations (OFUJA: 48, 52–53), and affixal ambiguity.

All of the lexemes in the Karelian language can be assigned to one of two word classes: inflectable (nominals and verbs) and uninflectable (adverbs, prepositions, postpositions, conjunctions, particles, and interjections) words (see Rjagoev 1977: 52; Barantsev 1985: 55; Rjagoev 1987: 198; Zaikov 1999: 30; Zaikov 2002: 7; Markianova 2002: 26–27; Pyöli 2011: 21; Zaikov 2013: 57).

All inflectional categories in Karelian are formed by adding one or more grammatically meaningful affixes to a word's stem, i.e. the core of a word that carries its concrete, lexical meaning. Affixes are used not only to create word forms but also to indicate syntactic relations in a clause. Moreover, any form may contain only one inflectional affix of a grammatical class (see VISK § 53), so there cannot be several case endings or mood affixes in a single word form, for instance. The order of affixes in any word form is strictly determined by grammatical rules.

In Finnic linguistics, stems are divided into lexical (simple) stems and inflectional stems (also known as complex, morphological, or grammatical stems). A stem is the part of a word form that remains when all inflectional affixes have been removed. An inflectional stem contains the stem and one or more affixes. (See Ahtia 1938: 37; Rjagoev 1987: 89–90; Adel' 1995: 7; Zaikov 2002: 36; Markianova 2002: 18; Zaitseva 2002: 23; Zaikov 2013: 59.) Like other Finnic languages, Karelian inflectional morphemes include plural and comparative affixes (nominal declension) and imperfect, mood, infinitive, and participle affixes (verb conjugation). Karelian is characterised by case endings (declension) and person/number affixes (conjugation). Therefore, the word forms *kuko-tta* 'without a rooster' and *ota-n* 'I take' are formed by the stems *kuko-* and *ota-* and the suffixes *-tta* (abessive) and *-n* (1sg), whereas the word forms *kukko-loi-tta* 'without roosters' and *otta-zi-n* 'I would take' are formed by the word forms *kukkoloi-* (stem *kukko-* + plural affix *-loi-*) and *ottazi-* (stem *otta-* + conditional affix *-zi-*) and the suffixes *-tta* (abessive) and *-n* (1sg).

Karelian nominals and verbs have either one or two stems (see Ahtia 1938: 37; OFUJA: 48–49; Barantsev 1985: 57; Zaikov 2002: 36; Zaikov 2013: 59). Lexemes which only have a vowel stem are called single-stem lexemes, whereas lexemes with both a vowel and a consonant stem are called two-stem lexemes.

7 NOMINAL DECLENSION

Nominal (noun, adjective, numeral, and pronoun) declension includes the formation of cases and numbers (inflection classes) (see Zaikov 1999: 31; Markianova 2002: 29; Zaikov 2002: 45; Pyöli 2011: 22; Zaikov 2013: 57–58). Possession and comparison are seen in Finnic language grammars as border cases between inflection and derivation. *Iso suomen kielioppi*, the most

comprehensive reference grammar of Finnish to date, categorises possession under inflection, as adding a possessive suffix to a word does not alter its word class or basic meaning. Comparison, however, along with the formation of ordinal numerals, is categorised under derivation, as comparative and superlative affixes are added to a word before grammatical suffixes. They count as adjectives, but their comparison results in a shift in meaning, which is not typical of inflection (VISK § 62, 95, 296). In Russian Finno-Ugristics, both categories are detailed under inflection.

In nominal declension, word forms are constructed by adding affixes to the stem in the following order: 1. comparative affix, 2. number affix, 3. case affix, and 4. possessive suffix. For example, *piene-mm-i-llä-ni* ('to those smaller than myself') is parsed as follows:

piene-	stem (adjective vowel stem of *pieni* 'small')
-mbi (-mbA- / -mmA-)	comparative affix
-i-	number affix (plural)
-llä	case ending (adessive)
-ni	possessive suffix (1sg)

7.1 Nominal stem types

Before analysing the grammatical categories of nominals, we will look at nominal declension types that are typical of Karelian, the division of which is based on the number of possible stems but also on sound alternations occurring in the stem. The stem type can be identified by 1) the singular nominative form (lemma) and the genitive singular form, which contains the weak vowel stem of single-stem nominals and the strong vowel stem of two-stem nominals, or by 2) the illative singular form, which contains the strong vowel stem, and the partitive singular, which contains the consonant stem. It also reveals any potential vowel alternations in the stem.

Nominal declension types in Karelian are mostly rooted in Late Proto-Finnic (OFUJA: 51). This means that apart from phonetic differences, there is very little variation in the inflection types between the various dialects of Karelian, as illustrated by Table 29. Descriptive grammars utilise various principles in their categorisation of inflection types. Genetz's description of Suoyarvi subdialects categorises inflectional types by the final vowel in the stem, ignoring the number of possible stems (Genetz 1870: 233–235). Later studies by Genetz place the main focus on the characteristics of stem-final vowels that are realised during inflection (contracted and shortened stems, and stems which are unaffected by these processes) (Genetz 1880: 194–196; Genetz 1885: 151–152). Beljakov's and Anisimov's classification is based on the syllable count of the stem and its final vowels, not distinguishing between single- and two-stem nominals (Anisimov 1948: 30–97; Beljakov 1948: 55–65). Rjagoev's study *Očerki po livvikovskomu dialektu karel'skogo jazyka* [Studies on the Livvi-Karelian dialects of the Karelian language] considers the number of stems and their consonant gradation to be the most prominent feature in inflection type classification (Rjagojev 1987: 204–205). The most detailed accounts on the classification of nominal stems are in Barantsev's and Rjagoev's grammars

(*Tikhvinskij govor karel'skogo jazyka* [The Tikhvin subdialect of the Karelian language]) which consider the number of possible stems and their word-final phonetic form (see Rjagojev 1977: 65–81; Barantsev 1985: 58–66).[67]

The most important criterion in determining the inflection type of a nominal is the lexeme's consonant stem or lack thereof, which tells us whether the lexeme has one or two stems. With single-stem nominals, the grammatical affix is added to the only possible vowel stem (*kala* 'a fish' : *kala-n* gen. sg, *kalu-a* / *kalo-a* / *kala-a* / *kala-d* par. sg, *kalo-i* / *kalo-ida* / *kalo-idu* / *kalo-ja* / *kaluo-id* par. pl). A consonant stem, ending with a consonant, occurs in some inflection forms of two-stem nominals (e.g. par. sg), and other forms (e.g. gen. sg) are created by adding affixes to the vowel stem (*herneh* 'a pea' : *hernehe-n* gen. sg, *herneh-tä* / *herneh-ty* / *herneh-t* par. sg, *hernehi-e* / *hernehi-i* / *hernehi-id* par. pl). In Karelian, vowel stems may end with the short vowels *a*, *ä*, *o*, *u*, *y*, *i*, *e* or diphthongs. Consonant stems end with *l*, *n*, *r*, *s* / *š*, *h*, *t*.

The final phoneme in the word's basic form (nominative singular) helps in determining whether the word has one or two stems. Usually, the word has only one stem if the basic form in Karelian Proper and Livvi-Karelian ends with labial vowels or the vowels *a*, *ä* (*kala* 'a fish' : *kala-n* gen. sg, *kalu-a* / *kalo-a* / *kala-a* / *kala-d* par. sg, *koivu* 'koivu' : *koivu-n* gen. sg, *koivu-o* / *koivu-u* / *koivu-d* par. sg). Ludic dialects and the Dyorzha dialect of Karelian Proper typically feature apocope, meaning that the short vowel in the word's basic form is deleted, which makes this test more difficult to apply. Diphthongs and long vowels at the end of nominative singular indicate a vowel stem (*puu* 'a tree' : *puu-n* gen. sg, *puu-da* / *puu-ta* / *puu-du* / *puu-t* / *puu-d* par. sg). A word has two stems if the basic form ends with the vowel *e* (*päre* 'a wooden shake' : *pärie-n* / *pärege-n* gen. sg , *päret-tä* / *päret-ty* / *päret-te* par. sg) or with a consonant (*kirves* / *kirveš* 'an axe' : *kirvehe-n* gen. sg, *kirves-tä* / *kirveš-tä* / *kirves-ty* / *kirves-te* par. sg). An *i* at the end of the nominative singular is typical of both single- and two-stem nominals (*kivi* : *kive-n* gen. sg, *kivi-e*, *kivi-ä* / *kive-d* par. sg; *lumi* 'snow' : *lume-n* gen. sg, *lun-da* / *lun-ta* / *lun-du* / *lun-tte* / *lun-d* par. sg).

Nominal declension is also affected by the syllable count of the stem and the quality of vowels, both in the stem and elsewhere. For example, final labial vowels and *i* are not affected by the plural affix (*koivu* 'a birch' : *koivu-loi-h* / *koivu-i-he* ill. pl), unlike *a*, *ä*, *e*. Moreover, the alternation of the final *a*, *ä* depends on the quality of other phonemes (kala 'a fish' : *kalo-i-h* ill. pl, *kylä* 'a village' : *kyli-h* ill. pl) and also the syllable count of the stem.[68] Syllable count also affects the inflection of stems ending with a long vowel or a diphthong (*puu* 'a tree' : *puu-loi-h* ill. pl, *korgie* / *korkie* / *korgei* 'tall' : *korgei-h* / *korkei-h* / *korgie-loi-h* / *korgedi-h* ill. pl).

Without exception, consonant gradation plays an important part in the inflection of nominals in Karelian, on the basis of which stems are divided into weak and strong stems. Single-stem nominals are characterised by direct gradation (*akka* / *akku* / *akke* / *akk* 'an old woman; a wife' : *aka-n* gen. sg, *akka-h* ill. sg), whereas two-stem nominals may have both direct (*vezi* / *vesi* / *veži* 'water' *vie-n* / *vei-n* / *veje-n* / *vede-n* [Ludic] gen. sg, *mättähä-h* / *mättähä-i* ill. sg) and inverse gradation (*mätäs* / *mätäš* 'a tussock' : *mättähä-n* gen. sg, *mättähä-h* / *mättähä-i* ill. sg).[69] Direct and inverse gradation can be presented as follows:

[67] For nominal declension types in the Karelian enclave dialects of Inner Russia see also Õispuu 1994: 201–251.

[68] See chapter 3.3 *Vowel alternations in the inflectional stem*.

[69] See chapter 4 *Consonant gradation*.

	nom. sg	gen. sg	par. sg	ill. sg
akka / *akku* / *akke* / *akk* (*akka-* / *aka-*)	strong grade	weak grade	strong grade	strong grade
mätäs / *mätäš* (*mättähä-* / *mätäs-* / *mätäš-*)	weak grade	strong grade	weak grade	strong grade

The strong grade always occurs in the illative singular. The genitive singular, for example, of nominals with direct gradation features a weak grade, while the grade would be weak in nominals with inverse gradation. Nominals with inverse gradation feature the weak grade in the nominative singular, whereas the nominative singular of nominals with direct gradation always features a strong grade.

The changes which occur during the comparison of vowel and consonant stems and also of basic forms (*vezi* / *veži* 'water' : *vede-h* ill. sg of *vet-tä* / *vet-ty* / *vet-te* / *vet-t* par. sg) are also important in the inflection of two-stem nominals. This is a case of historical consonant alternation, the variety of which in Karelian makes it possible to discern a sizeable group of two-stem nominal declension types and their subtypes containing only a few lexemes. All these factors are important in the construction of nominal declension forms in Karelian.

As illustrated by Table 29, there are no significant differences, apart from phonetic ones, between the nominal word stems either in Karelian dialects or in the standard varieties. Dialects may also feature mixed nominal declension types, as one grammatical form may be formed in two ways. In such cases, standard varieties (see Table 30) have opted for a single form.

Bubrih bases his own classification on the final vowel of the word stem (labial vowels and *i*, *a*, *ä*, *e*, long vowel, and diphthong) and divides nominals ending with *-ehe*, *-aha*, *-ähä*, *-ze*, ordinal numerals, comparative adjectives and other such "special cases" into separate groups. Within the groups, words are further divided into subgroups based on whether the lexemes have a consonant stem, the syllable count of the stem, and stem-final vowel alternations (see Bubrih 1937: 42–52).

Anisimov's classification is based not so much on the quality of the stem-final vowel but on the partitive singular suffix (*-V*, *-da* ~ *-dä*, *-ta* ~ *-tä*). Therefore, nominals ending with diphthongs and long vowels and some two-stem nominals all belong to a single inflection type. Nominals with the partitive affix *-o*, *-ö*, *-a*, *-ä*, *-e* are divided into four groups by the stem-final vowel. They may be further divided into subgroups based on the changes in the stem-final vowel. (See Anisimov 1939: 59–69.)

Ahtia's grammar divides all nominals into single-stem and two-stem nominals. Two-stem nominals are divided into four subgroups by their nominative singular form: 1) those ending with consonants, 2) those ending with *e*, 3) two-syllable words ending with *i*, 4) adjective ending with *-ine* (see Ahtia 1938: 45–46).

The contemporary grammars of standard varieties of Karelian use coherent nominal declension type classifications which distinguish between one-stem and two-stem nominals in particular. In the grammars of standard Livvi-Karelian the division into individual types in certain groups is based on the final segment of the word's basic form (Markianova 2002: 32–33; Pyöli 2011: 24–25). In his Viena Karelian grammars, Zaikov presents detailed classifications which consider all possible criteria (Zaikov 1999: 33–36; Zaikov 2002: 52–55; Zaikov 2013: 60–69).

7.2 Grammatical number

Grammatical number, or numerus, is a grammatical category which expresses count distinctions. As an independent grammatical form, number is characteristic to nouns and pronouns; however, it is a syntactic category for other nominal classes as well, i.e. they are in agreement with the noun form (LÈS). The dichotomous structure of the grammatical number category, i.e. the opposition of singular and plural, is characteristic to Karelian.

The singular in Karelian is unmarked. It does not have an affix (*hyvä-n tytö-n* gen. sg of *hyvä tyttö* 'a good girl'). The plural has several affixes, each of which are used in certain forms.

Nominative and accusative plurals are formed in Karelian dialects with the suffixes *-t* / *-d*. Oblique case plurals, i.e. other cases than the nominative, are formed with the affixes *-i* (*-j* / *-ii*), *-loi* ~ *-löi*, *-luoi* ~ *-lyöi* (Genetz 1870: 218; Genetz 1872: 18; Genetz 1880: 192–193; Genetz 1885: 150–151; Beljakov 1948: 56; Palmeos 1962: 38–40; Manžin 1964: 17–18; Rjagoev 1977: 53–54; Barantsev 1985: 67–71; Rjagoev 1987: 123–132). Table 31 shows the nominative, genitive, illative, and partitive plurals of nominals with different types of lexical stems.

The nominative and accusative plural is formed in all Karelian dialects with the ending *-t* / *-d*,[70] which closes the final syllable of the word stem and is added regularly to the weak stem of single-stem nominals and to the strong vowel stem of two-stem nominals (*velle-t* / *velle-d* / *veiko-t* 'brothers', *kala-t* / *kala-d* 'fish', *mättähä-t* / *mättähä-d* from *mätäs* / *mätäš* 'a tussock'). The voiced variant of the nominative plural affix is typical of Ludic: North and Central Ludic dialects feature the plural suffixes *-t*, *-d*, but in South Ludic and the Mikhailovskoye dialect only *-d* occurs. (See Programmy: 123.) The affix may become voiced in the speech stream in all dialects when the following word begins with a voiced sound.[71]

Oblique plurals are formed with the affixes *-i* (*-j* / *-ii*) and *-loi* ~ *-löi*, *-luoi* ~ *-lyöi*.[72] The affix *-i* (*-ii*)[73] is used in all dialects of Karelian to form the plurals of two-stem nominals ending with *a*, *ä* (*lehmi-h* / *lehmii* ill. pl of *lehmä* / *lehmy* / *lehme* / *lehm* [*lehmä-*] 'a cow'). It is also used to form the plurals of such two-stem nominals that have a polysyllabic vowel stem ending with *e* (*kirvehi-h* ill. pl of *kirveš* / *kirves* [*kirvehe-*] 'an axe'). In Ludic dialects, the usage of the plural suffix *-i* / *-ii* is typical of other nominal declension types as well. In Karelian Proper and Livvi-Karelian dialects it is possible to use both plural affixes in single- and two-stem nominals that have disyllabic vowel stems ending with *e*, and also with nominals ending with a diphthong or a long vowel. In some cases, the plural affix may vary within a single inflection type in a certain dialect. In the Karelian Proper Dyorzha dialect, it is possible to form plurals with each affix also from nominals that end in *a*, *ä*, due to apocope (e.g. *jalgo-i-h* / *jalg-loi-h* ill. pl of *jalg* 'a leg') (see Õispuu 1994: 226).

The affix *-i* / *-ii* is added to the vowel stem. It belongs to its final syllable and causes certain changes in the final vowel. This is a case of stem-final vowel deletion or a qualitative change.[74] The consonant gradation grade of single-stem nominals is determined by the following case ending.

In the Karelian Proper enclave dialects of Inner Russia, individual Viena Karelian subdialects, and Ludic dialects, final consonant elision in stems ending with *a*, *ä*, *e*, which causes the plural affix *i* to merge with the final vowel, occurs in parallel with the duplication of the plural affix (*pitkiih* / *pitkiihe* ill. pl of *pitkä-* / *pitke* / *pitk* [*pitkä-*] 'long') (see Atlas: map 113). This phenomenon is likely archaic, as such forms occur rather rarely in the nominal

[70] The affix is quite old, with linguists dating it to the period after the Finno-Volgaic period, or even to Proto-Uralic (see Hakulinen 1979: 94, 98; JAN SSSR III: 180, 326, 340).

[71] See chapter 2.1 *Opposition of voiced and voiceless consonants*.

[72] For the special features of the formation of individual cases see the corresponding chapters.

[73] Linguists have connected this affix, which developed into a system during the common Early Proto-Finnic period, to Proto-Uralic (see OFUJA 54; Hakulinen 1979: 91; Häkkinen 1985: 75).

[74] See chapter 3.3 *Vowel alternations in the inflectional stem*.

declension system. They are mostly encountered in folkloric texts. The same phenomenon is typical of Veps dialects (see Zaitseva 1981: 155) and the Ingrian language (see Junus 1936: 42). The lengthening of *-i-*, which is also known in dialects of Finnish, Estonian, and Votic, has given Setälä and Tunkelo reason to classify *-ī-* as an individual plural affix in Late Proto-Finnic (see Tunkelo 1938). It is likely that the affix *-ii-* that occurs in some dialects of Karelian is derived from this Late Proto-Finnic affix. Its occurrence in Ludic subdialects may result from the influence of Veps phonology.

The affix *-loi ~ -löi*[75] is added in Karelian Proper and Livvi-Karelian dialects regularly to the strong grade vowel stems (of single-stem nominals) ending with *o*, *ö*, *u*, *y*, *i* (*koivu-loi-h* ill. pl of *koivu* / *koiv* [*koivu-*] 'a birch'). In Ludic subdialects, it is possible to use the plural affix *-i-* in this position (*koivu-i-he* / *koivu-oi-he*). The usage of *-loi ~ -löi*, *-luoi ~ -lyöi* is typical in Livvi-Karelian also to nominals which have a stem ending with the diphthong *oi ~ öi*, and in Ludic to nominals which have a stem ending with the triphthong *uoi ~ yöi*. In Karelian Proper dialects these are replaced by *o*, *ö*. One should note here the elision of the diphthong's second segment as it precedes the plural affix in Livvi-Karelian, and also the usage of *o ~ ö* instead of a triphthong in Ludic.

In most dialects of Karelian, oblique plurals are typically formed with *-loi ~ -löi* from monosyllabic single-stem nominals whose stem ends with a long vowel or a diphthong, with the exception of Ludic dialects and the Viena and transitional dialects of Karelian Proper (mostly nominals ending with the opening diphthongs *ua* / *oa*, *öä* / *eä* / *iä*, *ie*) (Karelian Proper: *yö-löi* / *yö-löj-ä* / *ö-i-tä*, Livvi-Karelian: *yö-löi*, Ludic: *yö-i-t* / *yö-i-d* / *yö-lyö-d* [South Ludic] par. pl of *yö* 'night'; *mua-loi-h* / *moa-loi-h* / *mua-luoi-he* / *ma-i-h* / *ma-i-he* / *mua-i-he* ill. pl of *mua* / *moa* / *maa* 'land, ground') (see Atlas: map 118; Programmy: 125).

Apparently, the formation of plurals with the suffix *i* from the nominals in this group is the older method of the two. (For example, it has completely fallen out of use in everyday speech in Tver Karelian dialects, although it has been recorded in folkloric texts.) It is, however, the more common method in Ludic. Its use in this manner in Ludic is likely to be a rather recent development, born out of the influence of the neighbouring Livvi-Karelian dialects.

In Karelian Proper, both plural affixes may be used with single-stem nominals that have a polysyllabic stem ending with a diphthong, and with plurals of two-stem nominals ending with a diphthong: *-loi ~ -löi* occurs in South Karelian dialects (*pime-i-dä* / *pime-i-tä* / *pimie-löi* / *pimie-löi-dä* par. pl of *pimie* 'dark', *harma-i-ta* / *harma-i-da* / *harmua-i-ta* / *harmoa-lo-ja* / *harmua-loi* / *harmua-loi-da* par. pl of *harmua* / *harmoa* 'grey', *korgie-loi-h* / *korge-i-h* ill. pl of *korgie* / *korgea* / *korgei* 'tall'). In this case, Livvi-Karelian dialects use the suffix *-loi ~ -löi* (*pimie-löi* / *pimiä-löi* / *pimeilöi*, *harmua-loi* / *harmoa-loi* / *harmai-loi* / *harmaa-loi*, *korgie-loi-h*). In Ludic, diphthongs have not formed at the end of these inflection types (*pimed-i-d* / *pimed-i-t*, *harmad-i-d*, *korgedi-h* / *korgedii-he*). (See Atlas: map 117; Programmy: 123–125.)

The affix *-loi ~ -löi* may be used in Karelian Proper and Livvi-Karelian with single- and two-stem nominals with a vowel stem ending with *e* (*lumi-loi-h* / *lumi-h* ill. pl of *lumi* [*lume-*] 'snow'; *käzi-h* / *käzilöi-h* / *käžii-h* ill. pl of *käzi* / *käži* [*käde-*] 'an arm') (see also Õispuu 1994: 226). In such cases, *-loi ~ -löi* is added to a particular plural stem, which falls together with the nominative singular (*lumi-*, *käzi-* / *käži-*). It is likely an analogy of the formation of plurals from single-stem nominals with a stem ending with *i*. The partitive and genitive plural forms of Karelian Proper Viena Karelian and transitional dialects form an exception, as they differ from South Karelian dialects in that the plural suffix *i* is used (Viena Karelian dialects of

[75] There is no consensus among linguists on the formation of *-loi ~ -löi*. Some argue that the suffix has formed due to a morpheme boundary change or a reparsing of the stem elements *-l* and *-O* (see OFUJA: 54); according to Leskinen, the affix has spread into other words from the plurals of nominals ending with *-lO-* (Leskinen 1998: 365). Tuomi connects the suffix to the ancient suffix **-lA* which has experienced regular sound changes preceding *i* (*-lA-* + *-i-* > *-lOi-*) (Tuomi 1990: 195). Undoubtedly the suffix formed in Old Karelian, as it occurs in all its descendant languages (see also Leskinen 1933: 103).

Karelian Proper: *kivi-jä* / *kiv-i-e*, cf. Karelian Proper South Karelian dialects: *kivi-löi* / *kivi-lö-jä* / *kivi-löi-tä* / *kivi-löi-dä* par. pl of *kivi* [*kive-*] 'a stone'; Livvi-Karelian: *kivi-i* / *kivi-löi*; Ludic: *kiv-i-d* / *kiv-i-t*). (Programmy: 125.)

One should also mention the usage of particular plural stems ending with *-zi* / *-ži* in two-stem nominals that end with *-ut* ~ *-yt*, *-uš* ~ *-yš*, which occur in all Karelian main dialects (*kätkyzi-h* / *kätkyizi-h* / *kätkyžii-he* ill. pl of *kätyt* / *kätkyt* 'a crib').

Standard varieties of Karelian (Table 32) do not allow plurals to be formed in two ways, which would be typical of certain nominal types in dialects, except for Ahtia's grammar, in which the possibility to use both plural affix variants in certain nominal declension types is mentioned.

The nominative plural affix in all standard varieties of Karelian is *-t*. The affix *-loi* ~ *-löi* is used to form oblique case plurals from single-stem nominals ending with *o* ~ *ö*, *u* ~ *y*, *i*, (*oi* ~ *öi*) (with the exception of polysyllabic nominals ending with *o* ~ *ö* in standard Viena Karelian), whereas the affix *i* is used with single-stem nominals ending with *a* ~ *ä* and two-stem nominals with a stem ending *a* ~ *ä*. The affix *-loi* ~ *-löi* is not used in the genitive or partitive plural in standard Viena Karelian.

Grammarians disagree on plurals that are formed from single- and two-stem nominals and that have a vowel stem ending with *e*, a diphthong, or a long vowel. According to the inflection type table in Bubrih's grammar the affix *-loi* ~ *-löi* is used with single-stem nominals ending with "a long vowel or a diphthong" (*mualoja* par. pl of *mua* 'land, ground'); in some monosyllabic nominals ending with *i* that have an *e* stem, in which "*e* is preceded by the consonants *g*, *b*, *v* or consonant clusters *ht*, *sk*, *čč*, *pp*, and in the noun *nimi* 'a name'" (*siibilöjä* par. pl of *siibi* [*siibe-*] 'a wing'). The affix is also used with two-stem nominals that have a vowel stem and end with *e* in which "*e* is preceded by the consonants *d*, *z*, *l*, *r*, *n*, or the consonant clusters *rd*, *nd*, *ks*, *ps*" (*vezilöjä* par. pl of *vezi* [*vede-*]). In other cases, the plural affix *-i-* is used (*uuzie* par. pl of *uuzi* [*uude-*] 'new', *kiugaida* par. pl of *kiugua* 'a stove, an oven'). (See Bubrih 1937: 42–52.)

In Ahtia's grammar, the number of syllables in the stem has an essential part in determining the plural affix. Polysyllabic nominal stems ending with *e* receive the affix *-i* (*venehih* ill. pl of *veneh* [*venehe-*] 'a boat'), whereas with disyllabic nominals the affix *-loi* ~ *-löi* is preferred, although the usage of *-i* is not prohibited (*lumih* / *lumiloih* ill. pl of *lumi* [*lume-*] 'snow'). Either plural affix variant is possible with single- and two-stem nominals ending with a diphthong (*maih* / *mualoih* ill. pl of *moa* 'land, ground'). (See Ahtia 1938: 38–39.) In Anisimov's grammar, the affix *-loi* ~ *-löi* is used to form the oblique plural cases of single-stem nominals ending with *e* and nominals ending with a diphthong (*kurgiloih* ill. pl of *kurgi* 'a crane', *mualoih* ill. pl of *mua* 'land, ground'), and the affix *-i* is used with two-stem nominals that end with *e* and have a vowel stem (*lumih* ill. pl of *lumi* [*lume-*] '*snow*') (Anisimov 1939: 59).

In standard Viena Karelian the affix *-loi* ~ *-löi* is characteristic also to single-stem nominals ending with a closing diphthong that ends with *i*. It is also possible for certain disyllabic nominals that have a vowel stem ending with *e*. In other cases, oblique plurals are formed with the suffix *-i*. In standard Livvi-Karelian the use of affixes is quite simple: nominals ending with a diphthong or a long vowel receive the affix *-loi* ~ *-löi*, whereas nominals with an *e* vowel stem receive the suffix *-i*.

The rules governing the use of singulars and plurals and their special features in the standard varieties of Karelian are clearly stated in the normative grammars (see Bubrih 1937: 41; Zaikov 1999: 31–33; Markianova 2002: 34–36; Zaikov 2002: 50; Pyöli 2011: 25–27; Zaikov 2013: 74–75). The singular is used to express true unity, whereas the plural is used to express the plurality of lifeless referents, phenomena, and persons. Nominals that are only used in the singular are characteristic to all dialects of Karelian: abstract terms (*nuoruš* / *nuorus* / *nuoruz*

'youth'), collective nouns (*suad'boved* / *svoad'boveh* 'wedding guests'), and mass nouns (*vezi* / *veži* / *vesi* 'water'). Words used only in the plural are referents comprising more than one symmetric parts (*keriččemet* / *keriččimet* / *keriččemed* 'shears'), the names of various events, proceedings, and rituals (*ristiezet* / *risteizet* / *ristiäizet* / *ristiežed* / *ristijäiset* / *ristiäižed* 'a christening'), and a group of people in a collective sense (*vellekšet* / *vellekset* / *velleksed* 'brothers').

In describing the nominal declension number forms in Karelian dialects from the functional point of view, one should note the cases in which singular nouns are used in a plural sense: in conjunction with cardinal numerals and quantity words, e.g. *Heijän perehessä on kuusi lasta*. 'There are six children in their family.' (Pyöl); in relation to body parts that have a pair, e.g. *panna kengät jalgah* 'to put on some shoes' (Mark), *Mie panen kintahat käteh*. 'I'll put on my mittens.' (ZaiK); in some fixed phrases, e.g. *lähen / lähten šieneh / sieneh* 'I will go gather some mushrooms'. (See also Anisimov 1948: 28–29; Beljakov 1949: 50–51; Punžina 1975: 53–55, 62–69; Barantsev 1985: 67–71; Rjagoev 1987: 199–202.)

7.3 Grammatical case

Case is a grammatical category of nominals, expressing its syntactic relations to other words in the utterance or the utterance as a whole (LÈS). Cases are distinguished by their semantic basic functions. Case in Karelian is expressed autonomously, i.e. with case endings. Consonant gradation also has an important part in inflection.

The number of productive cases distinguished by linguists in the Karelian language ranges from 9 to 16. This variance is explained first and foremost by the differences in the case systems of Karelian main dialects and dialects. In Livvi-Karelian, for example, the internal local cases inessive and elative have merged into a single case, while in Karelian Proper the same has happened to the external local cases adessive and allative. Furthermore, the case system of Karelian is constantly changing: some cases are only taking form, whereas others are falling out of use and gradually moving into the class of adverbs. There are three morphosyntactic criteria to distinguish between a living case and an adverb: 1) the openness of lexical choice, 2) the possibility to use an optional attribute, and 3) the correspondence of formal and real number (see Kross 1983: 253). There are certain word forms in the main dialects of Karelian that meet only some of these criteria, namely, cases falling out of use or, conversely, newly-developed cases.

Many cases share the same case endings in the singular and plural, with the exception of the nominative and accusative forms. One should also note the formation of plural partitive and genitives in particular. The stem is a significant factor in case formation. With single-stem nominals, the case ending is added to the only possible vowel stem. Whether a weak or a strong grade is used depends in most cases on the phonetic structure of the endings, i.e. whether the ending closes the final syllable or leaves it open. With two-stem nominals, the partitive case is the only oblique case with which the consonant stem is used, whereas all other cases are formed with the vowel stem. With plurals, case endings are added to an inflectional stem that contains a plural affix.

Cases in Karelian dialects and normative grammars

	GenV	GenS	Rjag	Palm	Bel	Manž	GenA	RjagL	AnisG	GenL	Virt	Bar	Bubr	Aht	Anis	ZaiK	Mark/Pyöl
nom.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
gen.	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+
acc.				+	+	+			+			+	+	+		+	+
part.	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+
ess.	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+
trans.	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+
iness.	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+
elat.	+		+	+	+	+					+		+	+		+	+
illat.	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+
adess.	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+
ablt.	+		+	+	+	+					+		+	+		+	+
allat.		+							+	+	+	+					+
abess.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
com.	+		+	+	+	+	+	+				+		+		+	+
instr.	+	+	+	+		+	+	+				+		+		+	+
prol.	+	+	+				+	+				+					+
appr.				+													
egress.				+													
excess.														+			

Cases are typical of both nominals and verb nominal forms. While the possible number of infinitive case forms is limited, participles, like nominals, may be inflected in all cases in the singular and plural.

All cases in Finnic languages may be divided into two large groups — grammatical cases and semantic cases — by their role in the sentence. Depending on their main functions and usage conditions, semantic cases are further divided into two groups: local cases (adverbial cases) with a wide range of meanings, and marginal (concrete) cases (see VISK § 1221, 1223). Based on their formation, all cases in Karelian may be divided into original cases deriving from Late Proto-Finnic and into newer cases that have developed from postpositions, i.e. postpositional cases.

Each case has its unique system of meanings, each of which depends on the grammatical relations of the word, its lexical meaning, and the lexical meaning of the main component of the fixed phrase (Rjagoev 1987: 215). As the main meanings of the cases are shared by all Karelian dialects and other Finnic languages, the usage of individual cases is not detailed in this study. Instead, examples of their use have been collected from normative grammars.

Grammatical cases

The most important function of grammatical cases is to express the relationship between the subject, direct object, and the nominal component of a compound predicate (subject, object, and predicative). Grammatical cases (see Tables 33 and 34) include the nominative, which in

the morphophonological sense is the basic form in nominal declension and is opposed to all other categories, such as other cases (i.e. oblique cases). Other grammatical cases are the direct objective case accusative, the partitive, which is used to express the action of and the direct partial object of a subject, and the genitive, which expresses the noun attribute added to the nominal component.[76]

7.3.1 Nominative

The nominative does not have a particular ending in the singular (*kala* 'a fish'). However, this form is not nearly always identical to the stem.[77] The nominative plural ending in Karelian dialects is *-t* / *-d*[78], which is added to the nominal vowel stem. It expresses both case and number. Standard varieties of Karelian have opted for the ending variant *-t*. The suffix is added to the nominal vowel stem, and it closes the final syllable, which warrants a weak grade in single-stem nominals.

The basic functions of the nominative include:

1) expressing the subject of the action, e.g. *Kezäl ollah pitkät päivät*. 'Days are long in the summer.' (Anis), *Opastai lugou suarnua*. 'The teacher is reading a story.' (Mark), *Päivä nousou*. 'The sun is rising.' (ZaiK);

2) expressing the predicative (the nominal component of a compound predicate), e.g. *Počči on žiivatta*. 'The pig is a domestic animal.' (Anis), *Čikko on kirjanpitäjä*. 'Sister is an accountant.' (ZaiK), *Hänen tuatto on opastai*. 'His/her father is a teacher.' (Pyöl);

3) use in vocative functions (addressing), e.g. *Lapset, mengiä pihale.* 'Children, go outside.' (Mark), *Hüvät kuundelijat!* 'Dear listeners!' (Pyöl);

4) appositional use with, among other things, proper nouns, e.g. *rabočoi-stahanovca* 'a Stakhanovite worker' (Anis);

5) use in fixed expressions, e.g. *Täti istuu kiät rississä*. 'Aunt is sitting with her hands together.' (Zaik). (See Bubrih 1937: 38; Anisimov 1939: 48; Anisimov 1948: 4; Beljakov 1948: 42; Manžin 1964: 16; Rjagoev 1977: 81–82; Barantsev 1985: 114; Rjagoev 1987: 216–217; Zaikov 1999: 37; Markianova 2002: 41; Zaikov 2002: 56; Pyöli 2011: 33; Zaikov 2013: 76–77.)

7.3.2 Genitive

The singular genitive suffix in Karelian dialects is *-n*[79] (*kala-n* from *kala* 'a fish'). It is typical of some dialects that the final stem vowel becomes long and replaces the ending. In dialects, the consonant *n*[80] may also be assimilated to the first vowel of the following word. The suffix is added to the weak stem of single-stem nominals and to the vowel stem of two-stem nominals.

There are significant differences in the formation of genitive plurals between dialects. Ludic subdialects mostly use the suffix *-den*, which follows a plural stem suffix with *i* (*kaluoi-den* from *kala* 'a fish', *lapsi-den* from *lapsi* / *laps* / *lapš* [*lapse-*] 'a child'). In addition, the ending *-n* is used, and it is added to the plural stem ending with *-luoi-* ~ *-lyöi-* (*reboluoi-n* from *rebuoi* 'a fox'). This suffix has formed due to the influence of the neighbouring Livvi-Karelian subdialects.

In Livvi-Karelian dialects, genitive plurals are formed with the following endings:

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[76] For the formation of grammatical cases from various nominal stem types see chapters 7.1 *Nominal stem types* and 7.2 *Grammatical number*.

[77] See chapter 7.1 *Nominal stem types*.

[78] See chapter 7.2 *Grammatical number*.

[79] Linguists connect the affix to the Proto-Uralic lative suffix **-n* (Hakulinen 1979: 99; Häkkinen 1985: 77).

[80] See chapter 2 *Consonants*.

1) *-jen*, which is added to the plural stem of monosyllabic nominals (*pui-jen* from *puu* 'a tree'), although in these cases what is most often used is the suffix *-n*, which is added to the inflectional stem ending with *-loi ~ -löi* (*puuloi-n*);
2) *-n*, which occurs after a plural inflectional stem ending with a diphthong, including the suffixes *-loi ~ -löi* (*randoi-n* from *randu* [*randa-*] 'a shore', *reboloi-n* from *reboi* 'a fox');
3) *-en*, the use of which requires a plural stem ending with the short vowel *i* (*kieli-en* from *kieli* [*kiele-*] 'a tongue; a language', *lapsi-en* from *lapsi* [*lapse-*] 'lapsi').

In Karelian Proper dialects it is typical to also use the suffix *-en* in the genitive plural after the short *i* of the plural stem (*kieli-en* from *kieli* [*kiele-*] 'a tongue; a language'), *lapsi-en* / *lapši-en* from *lapsi* / *lapši* [*lapse-* / *lapše-*] 'a child', *velli-en* from *velli* [*velle-*] 'a brother'). In Tver and Valday dialects and the Kestenga, Panozero, and Vychetaybola subdialects, the suffix *e* has turned into *i*, which has led into the formation of the long vowel *ii*. It has shortened into *i* in some Tver Karelian subdialects (**ien* > *iin* > *in*) (*kieli-in* / *kieli-n*).[81] With other nominal types, it is typical of the South Karelian dialects to use the genitive suffix *-n* in the plural stem after diphthongs ending with *i* (*rannoi-n* from *randa* 'a shore', *reboloi-n* from *rebo* 'a fox'). The use of the ending *-jen* is rare in the South Karelian subdialects of the Russian Karelia (Reboly, Rugozero, Tunguda, Shuyezero, Maslozero, and Suoyarvi subdialects). It occurs particularly in monosyllabic words (*pui-jen* / *puuloi-n* from puu 'a tree'). Conversely, the genitive plural suffix *-jen* (*pui-jen*) is used after diphthongs ending with *i* in monosyllabic, disyllabic, and polysyllabic words. Elision of the second segment in the diphthongs *oi*, *öi* is also possible in the plural affixes *-loi ~ -löi* (*ranto-jen, rebolo-jen* / *reboloi-jen* / *rebo-jen* / *repo-jen*, *vellilö-jen* / *velli-jen*). The use of an inflectional stem that ends with *-loi ~ -löi* in the formation of genitive plurals, as well as partitives, is rare in the Karelian Proper Viena Karelian and transitional dialects. (See Atlas: maps 113–114; Programmy: 129.)

The significant differences in the use of the genitive plural suffixes in Karelian dialects may be explained by their formation history. It was typical of Late Proto-Finnic to use the genitive plural suffix **-ten*, which was subject to the suffixal gradation **-ten : -δen* (Hakulinen 1979: 94). The gradation degree depended on whether the final stem syllable was stressed or unstressed (OFUJA: 34), so *-ten* was received by monosyllabic and *-δen* by disyllabic nominals. In Ludic, the strong degree has spread into all positions, and the consonant segment in the ending has become voiced: *t* > *d* > *-den*. In Karelian Proper, the historical suffix **-ten* occurs in monosyllabic nominals as *-jen*. The spirant *δ* disappeared from *-δen*, which resulted in the suffix *-en*. In most dialects, it has been retained after a plural stem that ends with the short vowel *i*, and after diphthongs it has shortened into *n*, with the exception of Karelian Proper Viena Karelian dialects, in which the spirant has likely turned into *j*, in analogy to monosyllabic nominals.

The formation of genitive plurals ending with *-jen* in Karelian Proper (*ranto-jen*) and forms ending with *-den* in Ludic (*randuoi-den*) does not cause gradation in the stem, which is in keeping with the main rule of consonant gradation. However, adding the suffixes *-n* and *-en* does not weaken the consonant segment in the stem in Livvi-Karelian, even though it closes the syllable (*randoi-n*). Apparently, the ending has retained its strong grade due to its original structure (< Late Proto-Finnic **-ten : δen*). In time, the dental consonant in the suffix was lost but it did not alter the structure of the stem. In some Livvi-Karelian dialects (e.g. Nekkulitsy) and South Karelian dialects of Karelian Proper, the weak grade precedes the genitive plural suffix (*rannoi-n*). This phenomenon is a late development.

[81] Texts written in the Tolmachi dialect in the late 1800s and early 1900s contain forms in which the ending *-en* occurs (see Punzhina 1975: 108).

For his common Karelian literary language, Bubrih suggested two ways to form genitive plurals from plural stems ending with *-i*, *-loi ~ -löi*: the first is the same as the wide-spread variant in Tver Karelian dialects, i.e. the use of the ending *-n*. The other option is the ending *-en*, in which case the *i* in a diphthong turns into *j*, which also occurs in Viena Karelian dialects; however, the plural inflectional stem may end with *-loi ~ -löi*. (Bubrih 1937: 42–52.) In Anisimov's grammar, the system suggested by Bubrih has been modified to correspond to Livvi-Karelian, in which the endings are *-n* (*Vi + n*), *-en* (*i + en*) (Anisimov 1939: 59–64). Ahtia's grammar shares this description on genitive plural formation, although it also allows the use of *-jen* after an inflectional stem ending with a diphthong that ends with *i*. (See Ahtia 1938: 39–40).

In the contemporary standard varieties of Karelian genitive plurals are formed as in the dialects on which they are based. Thereby in standard Livvi-Karelian *-n* is used after plural inflectional stems that end with a diphthong (e.g. *-loi ~ -löi*), which may weaken the grade of the stem's consonant segment (*ravvoi-n* from *raudu* [*rauda-*] 'iron'), but in other cases, the suffix *-en* is used after the short *i*. In standard Viena Karelian the distribution is similar, but the final *-i* in the diphthong turns into *j*, and inflectional stems ending with *-loi ~ -löi* never occur in the genitive.

Syntactically, nominals in the genitive are mostly used as attributes.

The main functions of the genitive in Karelian include:

1) expressing possessive relations, e.g. *Tuaton velli tuli*. 'Father's brother came.' (Bubr), *Kolhozoin lehmät ollah mečäs*. 'The kolkhoz's cows are in the woods.' (Anis), *Talon nurkan takuana seiso tyttö*. 'A girl was standing behind the corner of the house.' (ZaiK), *Tuatan kodi siezou* [*sic*, read *seizou*] järven rannal. 'Father's home stands by the lake.' (Mark);

2) expressing a place, a certain period, or quantity, e.g. *Lauta on metrin pituni*. 'The board measures one metre.' (ZaiK), *Mečästäi päivän oli mečäs*. 'The hunter was in the woods for a day.' (Mark), *Neče ristikanzu on nuoren nägöine*. 'That person looks young.' (Pyöl);

3) extensive use with prepositions and postpositions to express local-temporal relations and means of and reason for action, e.g. *Velli lähti meččäh kirvehen ke*. 'Brother went into the woods with an axe.' (Anis), *Kissa kulkou emännän jälessä*. 'The cat walks after the matron.' (ZaiK), *lattien al* 'under the floor', *vihman jälles* 'after the rain' (Pyöl). (See Bubrih 1937: 38; Anisimov 1939: 49; Anisimov 1948: 5–6; Palmeos 1962: 25; Manžin 1964: 17; Punžina 1975: 108; Rjagoev 1977: 55–56; Barantsev 1985: 115; Rjagoev 1987: 217–219; Zaikov 1999: 38; Markianova 2002: 42; Zaikov 2002: 56–57; Pyöli 2011: 34–35; Zaikov 2013: 78–79.)

7.3.3 Accusative

Only some of the studied grammars, be they descriptive or normative, distinguish the accusative as an independent case, as it does not have any unique case endings, and its function is described to fall between the nominative and genitive. Thus, an accusative case with a unique suffix does not exist in Karelian based on morphological criteria, with the sole exception of personal pronouns, which receive a unique accusative suffix. However, considering the important semantic role of the accusative, it has received its own subchapter in this presentation.

There are no differences between the dialects or between the normative grammars in the formation of the accusative. In the singular it occurs either in the nominative, i.e. it has a zero ending (*kala*), or the ending *-n* is used (*kala-n*). The latter ending derives from the accusative that ended with **-m* in Proto-Uralic, which turned in the Late Proto-Finnic period into *-n*, thus becoming identical with the genitive (OFUJA 55; Hakulinen 1979: 98; Häkkinen 1985: 79). In some subdialects the consonant segment in the suffix has turned into a vowel, i.e. the the final stem vowel has become long, as is the case with the genitive suffix. The accusative

plural is identical to the plural nominative suffix with *-t* / *-d* (*kala-t* / *kala-d*). (See Genetz 1880: 191; Genetz 1885: 150; Bubrih 1937: 38; Ahtia 1938: 39; Anisimov 1948: 6; Beljakov 1948: 43; Palmeos 1962: 26; Barantsev 1985: 74; Markianova 2002: 43; Zaikov 2002: 57; Pyöli 2011: 35; Zaikov 2013: 80.)

The basic function of the accusative is to express a total object, e.g. *Tuatto osti uuvven auton.* 'Father bought a new car.' (ZaiK), *Tuatto kohendi levon.* 'Father fixed the roof.' (Mark), *Luvin hüvän kirjan.* 'I read a good book.' (Pyöl).

A singular accusative that is identical to the nominative is used:

– with an imperative predicate, e.g. Karelian Proper: *Antakkua kirja.* / *Andakkua kniiga.*; Livvi-Karelian: *Andakkoa* / *Andakkua* / *Andoat* / *Anduat kniigu.*; Ludic: *Andagat* / *Andagatte* / *Ankad* / *Ankat kniig* / *kniige*. 'Give (2pl) (sb) the book.'; *Avua ovi ta ikkuna*! 'Open (2sg) the door and window!' (ZaiK), *Luvekkua kirju*! 'Read (2pl) the book!' (Pyöl);

– with an impersonal verb predicate, e.g. Karelian Proper: *Pidäy* / *Pitäy avata ovi.*; Livvi-Karelian: *Pidäy* / *Pidää avata uksi.*; Ludic: *Pidäb* / *Pidab avaitta* / *avaita uksi* / *uks* / *ukš*. 'The door needs to be opened.'; *Pidää kirjuttua kirjaine.* 'A letter needs to be written.' (Mark), *Pitäy suaha verkko kuivumah.* 'The net has to dry.' (ZaiK);

– with a passive predicate, e.g. *Raha maksetah huomena*. 'The money will be paid tomorrow.' (ZaiK);

– with a 3pl predicate (Karelian Proper: *Hyö annetah kirja* / *kniiga.*; Livvi-Karelian: *Hyö annetah kniigu.*; Ludic: *Hyö andetah* / *andetau* / *andetaze kniig*. 'They will give [sb] the book.'). In the latter case, an accusative form similar to the genitive occurs, which is likely an influence from the grammar of Russian, e.g. Porozero, Tolmachi, Ves'yegonsk: *Hyö annetah kniigan.*; Yushkozero: *Hyö annetah kirjan.*; Vedlozero, Vidlitsa, Rypushkalitsy: *Hyö annetah kniigan*. In this case, Bubrih's grammar allows the use of the accusative in both the nominative and genitive form. In the new normative grammars of Karelian, a direct object does not have an ending in the singular with a 3pl verb, e.g. *Opastujat kirjutettih sanelu ülen hüvin.* 'Students wrote the dictation very well.' (Mark), *Hyö pannah lukku oveh*. 'They will put a lock on the door' (ZaiK). (Programmy: 139, 143, 149; Bubrih 1937: 38; Anisimov 1948: 6–7; Manžin 1964: 17; Punžina 1975: 97–100; Barantsev 1985: 116; Zaikov 1999: 38–39; Markianova 2002: 44; Zaikov 2002: 58; Pyöli 2011: 36; Zaikov 2013: 80.)

7.3.4 Partitive

Descriptive grammars show that the formation of the partitive differs greatly between the dialects of Karelian. Linguists have connected the partitive suffixes to the Proto-Finno-Ugric ablative local case that ends with **-tA*, which has extended its meaning to a grammatical case in the Finno-Volgaic period (Hakulinen 1979: 101; Häkkinen 1985: 81). It is likely that in the Late Proto-Finnic period the suffix became subject to suffixal gradation (**-tA* : * *-δA*), which would explain the different variants in Karelian dialects. In each dialect, the partitive is formed from the consonant stem of two-stem nominals, to which the suffix deriving from the strong grade is added. The adding of the partitive suffixes does not weaken the consonants in single-stem nominals.

In Ludic, the strong grade of suffixal gradation has become prominent in all positions. Ludic uses the same partitive suffixes (*-d* / *-D* / *-t*, *-te*) with all nominal stem types (*kaivo-d* from *kaivo* 'a well', *koivu-d* from *koivu* 'a birch', *puu-t* from *puu* 'a tree', *kastet-t* from *kaste* 'dew'). There is regular vowel alternation in the suffix at the absolute word end (*a* ~ *ä* : *Ø* / *e*).[82]

In Livvi-Karelian and Karelian Proper dialects — unlike in Ludic — the distribution of the singular partitive endings depends on the nominal stem type, the number of its possible stems,

[82] See chapter 1.4 *Word-final vowel alternations*.

and their final sounds. Thus, in the partitive an opening diphthong or a long vowel is formed at the end of disyllabic and polysyllabic single-stem nominals ending with a short vowel. It results from the contraction of a vowel that previously belonged to two separate syllables, but as the spirant *δ was deleted from the ancient weak-grade suffix, the vowels have ended up in the same syllable. Diphthongisation occurs in different ways in the different dialects[83] (*kaivuo* / *kaivua* / *kaivoo; koivuo* / *koivua* / *koivuu*). Linguists have noted that in some rare cases, the partitive ending *-du ~ -dy* is also used after the short-vowel partitive ending in Livvi-Karelian dialects (*selge-ä-dü* from *selgy* [*selgä-*] 'a back').

Partitive singulars of two-stem nominals and single-stem nominals ending with a long vowel or a diphthong contain the ending *-da ~ -dä*, *-ta ~ tä*, *-du ~ -dy*, or *-tu ~ -ty*. Typically, only *-ta - ~-tä* is used in the Karelian Proper Viena Karelian dialects, as their sound system lacks voiced consonants (*puu-ta*, *kaššet-ta*). In the Karelian Proper South Karelian dialects and in Livvi-Karelian, the endings *-da ~ -dä*, *-du ~ -dy* with voiced dental plosives occur in a voiced environment (*puu-da*, *puu-du*), and the endings *-ta ~ -tä*, *-tu ~ -ty* are used in a voiceless environment (after the voiceless consonants *s*, *š*, *h*, *t* in the consonant stem) (*kasset-ta*, *kaššet-ta* / *kastet-tu*). The final-vowel *u*, *y* in the ending is typical of Livvi-Karelian,[84] but the historically original vowels *a*, *ä* also occur in Livvi-Karelian before possessive suffixes (*puu-da-ni* par. sg of 'my tree').

The formation of partitive endings in Old Karelian has apparently fallen together with the formation of the plural affix *-loi ~ -löi*, which has resulted in a large group of partitive plural variants in contemporary dialects of Karelian, as is the case with the genitive plural. In Ludic dialects, partitive plurals are formed with the same suffixes as singulars, but they are added to an inflectional plural stem that ends with *i*, *ii* and rarely *luoi -lyöi* (*kondioi-d* from *kondii* 'a bear', *harmadi-d* from *harmai* / *harmad* 'grey', *pimedi-d* from *pimei* / *pimed* 'dark', *yöi-d* / *yölyöi-d* from *yö* 'a night', *vilui-d* from *vilu* 'cold', *sanoi-d* from *sana* 'a word', *harakoi-d* from *harakk* / *harakke* [*harakka-*] 'a magpie', *lehmi-d* from *lehme* / *lehm* [*lehmä-*] 'a cow', *lapsi-d* from *lapš* / *laps* / *lapsi* 'a child', *kivi-d* from *kivi* [*kive-*] 'a stone'). (Atlas: maps 117, 118; Programmy: 123–125.)

In cases where the plural stem ends with a short *i*, partitives are formed in Karelian Proper and Livvi-Karelian dialects with the ending *-e*, which in most Livvi-Karelian dialects has turned into *i* and which may be followed by the partitive ending *-du ~ -dy* (*lehmi-e* / *lehmi-ä* / *lehmi-i*, *lapši-e* / *lapsi-e* / *lapsi-i*).

In Karelian Proper Viena Karelian and transitional dialects and their dialects neighbouring South Karelian dialects (Maslozero, Shuyezero, Tunguda, Rugozero, and Reboly), partitives are not typically formed from inflectional stems containing the plural affix *-loi ~ -löi*. Partitive plurals of single-stem mono- and polysyllabic nominals that end with a long vowel or a diphthong, and polysyllabic nominals ending with a labial vowel or *i*, are formed by adding *-da ~ dä*, *-ta ~ -tä* to a plural stem ending with a diphthong (*kontei-da* / *kondei-ta*, *harmai-da* / *harmai-ta*, *pimei-dä* / *pimei-tä*, *öi-dä* / *öi-tä*) or by adding *-ja ~ -jä* directly into a nominal stem ending with a labial vowel or *i* (*vilu-ja*). Other South Karelian dialects of Karelian Proper typically use a plural stem ending with *-loi ~ -löi*, partly with single-stem polysyllabic nominals ending with a diphthong and particularly with single-stem monosyllabic (including subdialects of transitional dialects) and polysyllabic nominals ending with a labial vowel or *i*. At the same time, in most of these dialects the partitive occurs without an ending, with the exception of the Tver Karelian Tolmachi and Ves'yegonsk dialects, southern Myandusel'ga and some individual Korpisel'kya subdialects (with *-da ~ -dä*), the

[83] See chapter 1.6.1 *Opening diphthongs*.

[84] The local cases inessive, adessive, and essive are static cases. Directional cases are divided into separative and lative cases. Separative cases include the elative and ablative; lative include the illative and allative (VISK § 1235).

Valday dialect, some individual Porozero, Padany, Rugozero, and Ilomantsi subdialects (with *-ja ~ -jä*) (*kondieloi* / *kondieloi-da*, *harmualoi* / *harmualoi-da* / *harmualo-ja*, *pimielöi* / *pimielöi-dä*, *yölöi* / *yölöi-dä* / *yölö-jä*, *viluloi* / *viluloi-da* / *vilulo-ja*). In similar fashion, these forms are formed also in Livvi-Karelian from a plural stem ending with *-loi ~ -löi* and most often without the partitive ending (*kondieloi* / *kondialoi* / *kondeiloi*, *harmualoi* / *harmoaloi* / *harmailoi*, *pimielöi* / *pimeälöi* / *pimeilöi*, *yölöi*, *viluloi*). (Atlas: maps 117, 118; Programmy: 123–125.)

When the plural stem ends with the diphthongs *oi*, *öi* (nominals with a stem ending with *a*, *ä*), partitive endings *-ja ~ -jä* are used in most Karelian Proper dialects in the Russian Karelia (with the exception of the Korpisel'kya, Suystamo, Suoyarvi, and Myandusel'ga dialects, and some individual Padany and Porozero subdialects) but also in the Valday dialect and some individual Tolmachi subdialects (*šanoi-ja* / *sanoi-ja* / *šano-ja* / *sano-ja*, *harakko-ja*). Tolmachi and Ves'yegonsk dialects and southern Myandusel'ga subdialects add the ending *-da ~ -dä* to the stem (*šanoi-da* / *sanoi-da*, *harakkoi-da*). The ending *-du ~ -dy* is used in this case in the Livvi-Karelian dialects (*harakkoi-du*). A zero partitive ending in this form is typical of most Karelian Proper Border Karelian dialects, to some subdialects of the Padany, Porozero, Myandusel'ga, and Tikhvin dialects, and to Livvi-Karelian (*sanoi*, *harakkoi*). (Atlas: map 115; Programmy: 123–125; see also Õispuu 1994: 227.)

The partitive plural is most varied in Karelian subdialects with single-stem nominals with a stem that ends with *e* (Karelian Proper: *kivi-jä* [Karelian Proper Viena Karelian dialects, Tunguda] / *kivi-e* [Karelian Proper transitional dialects, Suoyarvi, Tikhvin] / *kivi-ä* [Yushkozero] / *kivilö-jä* [Padany, Rugozero, Valday] / *kivilöi-dä* [Maslozero, Rugozero, Reboly, Tolmachi, Ves'yegonsk] / *kivilöi* [Karelian Proper dialects of Border Karelia, Padany, Porozero], Livvi-Karelian: *kivi-i* / *kivi-e* / *kivilöi* [Syamozero, Nekkulitsy, Rypushkalitsy]) (Programmy: 125).

In the grammars of common Karelian literary language varities, singular partitives are formed with a vowel that forms a diphthong or a long vowel with the final vowel of the stem, or with the endings *-da ~ dä*, *-ta ~ tä*, which have the word-final sounds of Karelian Proper. The partitive plural is formed in Bubrih's grammar with *-e*, *-ja ~ -jä*, *-da ~ -dä*, the first of which is added to a plural inflectional stem ending with *i* (*uuzi-e* from *uuzi* 'new'), the second to a stem ending with *-loi ~ -löi* or a diphthong (*mualo-ja*, *rando-ja*), and the third one to the plural stem of polysyllabic nominals ending with a diphthong (*kiugai-da*) (Bubrih 1937: 42–52), as is the case in Karelian Proper dialects. In Anisimov's inflectional system, the partitive plural is formed with the ending *-e* (*lambahi-e*) or without an ending (*pardoi*, *mualoi*), as in Livvi-Karelian dialects (Anisimov 1939: 59–69). Ahtia's grammar also opts for the Livvi-Karelian variant: after the plural inflectional stem ending with *i*, the partitive ending is *-i* (*tuli-i*); after a plural inflectional stem ending with *-Vi* the ending is *-da ~ -dä* (*mai-da*), whereas with other inflection types the plural partitive ending is a zero (*moaloi*, *aidoi*) (Ahtia 1938: 41–42).

In the grammars of the contemporary standard varieties of Karelian, partitives are formed similarly to the dialects on which they are based. In standard Viena Karelian the partitive singular endings are *-a*, *-ä*, *-ö*, *-o*, *-e* or *-ta ~ -tä* with a voiceless dental plosive. The plural is formed with *-a ~ -ä* (with plural inflectional stems ending with *j*), with the ending *-ja ~ -jä* (single-stem nominals with a stem ending with *i*, *lampi-ja* from *lampi* [*lampi-*] 'a pond'), with *-e* (plural inflectional stems ending with *i*, *perehi-e*), or with *-ta ~ -tä* (after *Vi*, *mai-ta*). (Zaikov 2002: 58–60.) The partitive singular endings in standard Livvi-Karelian are *-a ~ -ä*, *-e*, *-i*, *-o ~ -ö*, *-u ~ -ü*, *-du ~ dü*, *-tu ~ -tü*. With plurals, the ending is *-i* (with plural inflectional stems ending with *i*, *perehi-i*) or zero (other cases, *mualoi*, *vazoi*) (Markianova 2002: 45–46).

Syntactically, the partitive is either the subject, the object, or the nominal component of the predicate. The basic functions of the partitive include:

1) expressing the subject of action, e.g. *Pučis on vettä*. 'There is water in the barrel.' (Anis), *Rahvastu tuli täüzi perti*. 'A houseful of people arrived.' (Mark), *Myö olemma iče kalastajie*. 'We are fishermen ourselves.' (ZaiK);

2) use as part of the direct partial object (expressing the part of a whole), e.g. *Anna miulla leibiä*. 'Give me some bread.' (Bubr), *Mie luven kniigua*. 'I am reading a book.' (Anis), *Lehmä antau maituo*. 'A cow gives milk.' (ZaiK), *Osta leibiä da maiduo*. 'Buy some bread and milk' (Pyöl);

3) use in negative structures, e.g. *En stroinut kodie*. 'I did not build a house.' (Bubr), *En tahto maiduo*. 'I do not want any milk.' (Anis), *Meilä matassa ei ollun kirvestä*. 'We did not have an axe with us.' (ZaiK), *Minul nikonzu ei ole aigua*. 'I never have any time.' (Pyöl);

4) use with numerals or words expressing uncertain quantities, e.g. *kolme lehmiä* 'three cows', *kobralline jauhuo* 'a handful of flour' (Bubr); *Sizärel on kaheksa vuotta*. 'Sister is eight years old.' (Anis), *moni hengie* 'several people' (Mark), *Suolla oli vähän hilluo*. 'There were few cloudberries on the bog.' (ZaiK);

5) expressing comparison with a comparative adjective, e.g. *puuda korgiembi* 'taller than a tree' (Bubr), *Kivi on kovembi puuda*. 'Stone is harder than wood' (Anis), *Velli on vahnembi sizärdü*. 'The brother is older than the sister' (Mark), *Čikko on veikkuo vanhempi*. 'The sister is older than the brother.' (ZaiK);

6) expressing a place and reason with prepositions and postpositions, e.g. *astuo pelduo müöte* 'to walk on the field' (Mark), *Kulemma tietä myöten*. 'We are walking on a road.' (ZaiK), *Stola on lähäl ikkunua*. 'The table is close to the window.' (Pyöl). (See Bubrih 1937: 38–39; Anisimov 1938: 50–51; Anisimov 1948: 13–14; Beljakov 1948: 44–45; Palmeos 1962: 27–28; Manžin 1964: 17; Rjagoev 1977: 84–86; Barantsev 1985: 116–117; Rjagoev 1987: 220–222; Zaikov 1999: 40; Markianova 2002: 46–47; Zaikov 2002: 58–60; Pyöli 2011: 36–69; Zaikov 2013: 85–86.)

Local cases

Local cases indicate location. They are organised into a system according to the two basic variables of motion and direction (LÈS). In Finnic languages, of all possible indications of state of being, location is expressed as being inside or outside a referent, with internal and external local cases; motion is indicated as direction: with lative cases (illative, allative, translative), separative cases (elative, ablative), and static cases (inessive, adessive, essive) (see VISK § 1223).

Abstract local cases include the essive and translative. They derive from the Proto-Uralic locative and lative cases, which have extended their meanings (see Hakulinen 1979: 101–102). Their original usage can be inferred from traces left in Balto-Finnic main dialects. As the contemporary basic function of these cases is to express a state rather than location, they are usually divided into a separate group of state cases. The essive is called a static case, whereas the translative is called a dynamic case.

Internal local cases include the inessive, elative, and illative. Linguists connect the *s* element, common to all internal local cases, to the Finno-Ugric lative suffix **-s* (see Hakulinen 1979: 103; OFUJA: 56). The basic meaning of internal local cases is being inside of something (inessive), coming out of something (elative), and going inside something (illative).

Syntactically, local cases usually function as adverbials. Nominals in the essive may also be the nominal part of a compound predicate.

It is typical of Livvi-Karelian and Ludic, as well as some of their neighbouring South Karelian subdialects of Karelian Proper, that the inessive and elative and also the adessive and

ablative fall together. In Livvi-Karelian dialects, all external local cases fall together.[85] In Livvi-Karelian and Ludic, this occurs due to the shortening of the case ending. In Karelian Proper dialects, the external local cases adessive and allative have eventually fallen together. Thus, only Ludic and its neighbouring Livvi-Karelian dialects of Kotkozero, Nekkulitsy and Rypushkalitsy have retained an individual allative case.

Karelian grammars commonly merge cases with identical suffixes into a single case, as is the case with the inessive-elative, adessive-ablative, adessive-ablative-allative, and adessive-allative cases. However, if one was to focus on their function instead of their structural form, as is the case with the accusative and genitive, each case then needs to be considered individually, especially since their representation differs in the various main dialects and dialects of Karelian (Tables 35 and 36). Dialect speakers also easily differentiate the various meanings of the cases through case government (rection) and prepositional and postpositional structures (Rjagoev 1987: 226–233).

During the centuries-long development of Karelian, local cases have received other, less important meanings in addition to their locational meanings.

Singular and plural local cases use the same case endings, but in the plural they are added to an inflectional stem that includes the plural affix. For this reason, the examples on local cases on tables 35 and 36 are mostly in the singular.

7.3.5 Essive

The essive ending in Karelian Proper dialects is *-na ~ -nä* (*akka-na* from *akka* 'an old woman, a wife', *paimene-na* from *paimen* 'a shepherd'). In Livvi-Karelian dialects and their neighbouring Central and South Ludic subdialects the ending is *-nnu ~ -nny* (*aka-nnu*, *akka-nnu*, *paimoi-nnu*), whereas in Ludic dialects and the Karelian Proper Dyorzha dialect the suffix is *-n* (Ludic: *akka-n*, *paimoi-n* / *paimuoi-n* / *paimuo-n*, Dyorzha: *akka-n*, *paimene-n*). (See Atlas: map 119; Programmy: 123). There are instances in all main dialects where the second consonant of the ending changes into *s* due to progressive assimilation (*toissa* / *tošš* from *toini* / *toine* 'another; the second').

Essive suffixes are added to the strong vowel or consonant stem. The strong grade before *-na ~ -nä* is regular, whereas the adding of *-nnu ~ -nny* closes the final stem syllable, which in turn weakens the grade. As previously mentioned, the essive derives from the Finno-Ugric lative that had the ending **-nA* (see OFUJA: 57; Hakulinen 1979: 101; Häkkinen 1985: 80). The ending retained its original form in Late Proto-Finnic and did not prompt gradation in the stem. In time, the essive ending in Ludic dialects and the Karelian Proper Dyorzha dialect lost its final vowel, which, however, has not affected gradation in the stem. In Livvi-Karelian, the changes were not limited to the final vowel, but the consonant segment also lengthened. Bubrih assumes that at the end of the Proto-Finnic period, a group of secondary location-denoting cases that ended with *-n* was formed for the first time, although not yet completely. They were formed from the essive ending with *-nA* and were modelled after the internal and external local cases. Thus, in analogy with the inessive and adessive endings *-ssA* and *-llA*, respectively, an essive ending *-nnA* was formed. This new form was not long-lived, but its traces can be seen in the geminate *nn* of the Livvi-Karelian essive ending. (Bubrih 2005: 190–191). This gemination also affected gradation: a weak degree occurs in the stem before the endings *-nnu*, *-nny*. The final *a ~ ä* changing into *u ~ y* is typical of Livvi-Karelian,[86] in which the original vowel occurs only before a possessive suffix.

[85] On case syncretism in Karelian see Larjavaara 1986.

[86] See chapter 1.4 *Word-final vowel alternations*.

Common literary language varieties opted for the essive ending *-na ~ -nä*, which represents the original form of the case and occurs in all main dialects before a possessive suffix. The representation of the ending *-na ~ -nä*, *-nnu ~ -nny* in standard Viena and Livvi-Karelian matches the dialects on which each standard variety is based.

The essive is used to express:

1) an occupation, a category of action: *Miun sizär on opastajana*. 'My sister is a teacher.' (Anis), *Sizär ruadau opastajannu*. 'The sister works as a teacher.' (Mark), *Tuattoni ruatau sähkömiehenä*. 'My father works as an electrician.' (ZaiK);

2) the state of a being or an inanimate referent, a means of action, or form: *Vanhanaki ukko luati venehie*. 'Even as an old man he was building boats.' (ZaiK);

3) a certain period of time: *Tänä vuodena ollah hyvät vil'l'at*. 'The crops are good this year.' (Anis), *Tänä talvennu oldih kovat pakkazet*. 'It was freezing this year.' (Mark), *Suavattana alkau laulufestivali*. 'The song festival starts on Saturday.' (ZaiK), *Olen roinnuhes kezäkuun toizennu päivänny*. 'I was born on the second of June.' (Pyöl). (See Anisimov 1939: 52; Anisimov 1948: 8; Palmeos 1962: 36; Rjagoev 1977: 86–87; Barantsev 1985: 117; Rjagoev 1987: 222–223; Zaikov 1999: 40–41; Markianova 2002: 48; Zaikov 2002: 60; Pyöli 2011: 40; Zaikov 2013: 87.)

7.3.6 Translative

The translative endings in Karelian Proper dialects are *-kši* / *-ksi*, *kše* / *kse*.[87] An ending with *i* is most prevalent (*aka-kši* / *aka-ksi* form *akka* 'an old woman; a wife'). The open sibilant *š* is typical of the Viena Karelian Olanga and Kestenga and the South Karelian Maslozero, Tunguda, Rugozero, Myandusel'ga, Porozero, and Reboly dialects, and also of their neighbouring northern dialects of Ilomantsi and the Inner Russian enclave dialects of South Karelian. An ending with *e* is typical of some neighbouring Viena Karelian Voknavolok dialects (*aka-kse*), Tikhtozero and Ukhta subdialects (*aka-kše*), as well as southern Suoyarvi and Suystamo subdialects, which neighbour Livvi-Karelian dialects (*aka-kse*). An *e* occurs in the translative ending also in all other Karelian Proper dialects before a possessive suffix. In most dialects with an open sibilant in the ending, there is an open sibilant in the stem also after the *i* in the inflectional stem.

Livvi-Karelian typically uses the translative ending *-kse* (*aka-kse*), whereas Ludic dialects typically use *-kse*, *-ks* (South Ludic and its neighbouring subdialect of Mikhailovskoye) and *-kši*, *-kš* (North and Central Ludic dialects) (*aka-kse* / *aka-kši* / *aka-ks* / *aka-kš*). The translative endings *-kš*, *-ks* are typical of the Karelian Proper Dyorzha dialect, due to its wide-spread apocope. (see Atlas: map 120; Programmy: 125; KKMK.)

Translative endings are added regularly to the weak vowel stem of single-stem nominals and to the strong vowel or plural stem of disyllabic nominals.

In Bubrih's and Anisimov's grammars, the translative ending is *-ksi*. In Ahtia's grammar and standard Livvi-Karelian it is *-kse*. In standard Viena Karelian the translative endings are *-kši*, *-ksi*, as in the dialects on which the standard variety is based.

The translative is used to express:

1) a change in the quality of an animate or inanimate referent or a state, e.g. *lietä opastajaksi* 'to become a teacher' (Bubr), *Puu pilittih halloksi.* 'The tree was sawed into firewood.' (Anis), *Koivu pilattih hallokse*. 'The birch was sawn into firewood.' (Mark), *Tyttö muuttu jouccčeneksi*. 'The girl turned into a swan.' (ZaiK);

[87] Linguists connect the translative ending to the Finno-Ugric lative that ends with **-k* and **-s* (see Hakulinen 1979: 102) or to the Finno-Permic denominal suffix (see Häkkinen 1985: 82).

2) a result or goal of action, e.g. *Potakka kiehu kypsäksi.* 'The potato was boiled until done.' (ZaiK), *Keräin siendü suolattavakse*. 'I gathered some mushrooms for salting.' (Pyöl);

3) a language that is spoken, e.g. *Lapset paistih karjalaksi.* 'The children were speaking in Karelian.' (ZaiK), *Pagizetgo karjalakse?* 'Do you speak Karelian?' (Pyöl);

4) time of action (a time or period for which something was promised), e.g. *Anna miulla kniigat yhteksi päiväksi.* 'Give me the books for one day.' (Bubr), *Hallot jätettih meččäh talveksi.* 'The firewood was left in the forest for the winter.' (Anis), *Mies tuli tänne vuuvveksi*. 'The man came to stay here for a year.' (ZaiK), *Kotih pitäy tulla kello kymmeneksi*. 'You must be home by ten o'clock.' (ZaiK), *Kezäkse lähtemmö küläh*. 'We go to the village for the summer.' (Pyöl). (Bubrih 1937: 39; Anisimov 1939: 52; Anisimov 1948: 15; Beljakov 1948: 46; Palmeos 1962: 36; Rjagoev 1977: 87–88; Barantsev 1985: 119; Rjagoev 1987: 224–225; Zaikov 1999: 41; Markianova 2002: 49; Zaikov 2002: 61–62; Pyöli 2011: 41; Zaikov 2013: 87–88.)

7.3.7 Inessive

The inessive endings in Karelian Proper are *-šša ~ -ššä*, *-ssa ~ -ssä*, *-s's'a*[88] (*-šš*, *-ss*, *-s's'* in the Dyorzha dialect) (*kylä-ššä* / *kylä-ssä* from *kylä* 'a village', *talo-ša* / *talo-ssa* from *talo* 'a house'). The distribution of close and open syllable varies between dialects.[89] The ending *-s* occurs in southern Myandusel'ga as well as Border Karelian Suoyarvi and Suystamo subdialects that are neighboured by Livvi-Karelian and Ludic (*kylä-s*, *talo-s*). In Livvi-Karelian and Ludic, the ending has shortened into *-s* (*kylä-s*, *taloi-s* / *talo-s*), which is an apparent influence of Veps (Hämäläinen 1961: 92–109). However, the original form of the ending, *-ssa ~ -ssä*, occurs in both main dialects before possessive suffixes (*taloi-ssa-h*). In dialect speech, the inessive ending may become voiced in a voiced environment[90] (*kylä-z*). Ludic subdialects typically use the open sibilant *š* as the inessive ending (Northern Ludic: *kylä-š*, Mikhailovskoye: *perti-š* from pert 'a house'.) (See Atlas: map 121; Programmy: 125; Rodionova 2015: 54–55.)

Inessive endings are added to the vowel stem and prompt regular consonant gradation in single-stem nominals that contain a gradation consonant. The plural suffix is added to the plural inflectional stem.

Bubrih suggested that in the common literary language the Karelian Proper ending *-ssa ~ -ssä* be used, whereas Ahtia's and Anisimov's grammars opt for *-s*. Usage in the contemporary standard varieties matches the dialects on which they are based.

The main meaning of the inessive is:

1) the locational meaning of being inside something, being part of something, e.g. *Kniiga on stolas*. 'The book is on the table.' (Anis), *Maido on kupis*. 'The milk is in the cup.' (Mark), *Potakkua pijettih karzinassa*. 'Potatoes were stored in the cellar.' (ZaiK).

In addition to its main meaning, the inessive has in time received other, less prominent meanings. It expresses:

2) immediate connection to something, e.g. *Šuapka on piäs*. 'The hat was on his/her head.' (Anis), *Joven pohjassa oli kivie*. 'There were rocks at the bottom of the river.' (ZaiK);

3) a state of someone or something, e.g. *Heponi on nälässä*. 'The horse is hungry.' (ZaiK), *Kaikin oldih pahas mieles.* 'They were all in a bad mood.' (Pyöl);

4) a process, work, e.g. *Eklen myö olima sienessä*. 'Yesterday we were gathering some mushrooms.' (ZaiK);

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88 Linguists connect this suffix to the Finno-Volgaic suffix **-snA* which consists of the lative affix **-s* and the Finno-Ugric locative suffix **-nA*, which has been changed by progressive assimilation during the Balto-Finnic-Volgaic proto language period (> ** -ssA*) (see Hakulinen 1979: 103; OFUJA: 56).

89 See chapter 2.2 *Distribution of close and open sibilants (s / š, z / ž)*.

90 See chapter 2 *Consonants*.

5) a time when or during which something happens, e.g. *Traktoral peldo kynnettih kolmes päiväs*. 'With the tractor the field was ploughed in three days.' (Anis), *Mies kohendi levon kahtes päiväs*. 'The man fixed the roof in two days.' (Mark), *Luajin kotiruavon kahessa tunnissa*. 'I did my homework in two hours.' (ZaiK);

6) some substance that influences a referent, e.g. *Pojan kiät oldih lijassa*. (Zaik) 'The boy's hands were dirty.' (See Bubrih 1937: 39; Anisimov 1939: 52–53; Anisimov 1948: 15–18; Beljakov 1948: 47; Palmeos 1962: 30; Rjagoev 1977: 88–89; Barantsev 1985: 119–121; Rjagoev 1987: 225–228; Zaikov 1999: 42; Markianova 2002: 49–50; Zaikov 2002: 62; Pyöli 2011: 40; Zaikov 2013: 90–91.)

7.3.8 Elative

The elative endings in Karelian Proper are *-šta ~ -štä*, *-sta ~ -stä*[91] (*-št*, *-st* in the Dyorzha dialect) (*mečä-štä* / *mečä-stä* from *meččä* 'a forest'). However, the influence of Livvi-Karelian is apparent in a group of Myandusel'ga, Suoyarvi, and Suystamo subdialects. (See Atlas: map 121; Programmy: 125). Livvi-Karelian and Ludic dialects use the postposition *-päi* / *-piäi* to differentiate between the identical inessive and elative ending *-s* (Hämäläinen 1961: 92–109). It has led to the formation of a new postpositional elative suffix *-späi* in Livvi-Karelian (*mečä-späi* / *mečä-s*) and *-spiäi* in Ludic (*mečä-spiäi* / *mečä-spiä*). The postpositionally formed elative is used in Livvi-Karelian dialects mostly to express only locational divergence, whereas it has also other meanings in Ludic. (Rodionova 2015: 55–56, 65.)

Elative endings are added regularly to the weak vowel stem of single-stem nominals and to the strong vowel stem of disyllabic nominals. In plural, the suffix is added to an inflectional stem containing a plural affix.

Both Ahtia's grammar and standard Livvi-Karelian feature the postpositionally formed elative ending *-späi*. Anisimov opts for the ending *-s*, which combines the inessive and elative meanings, whereas Bubrih's grammar of the common literary language favours the Karelian Proper variant *-sta ~ -stä*.

The elative is used to express:

1) separation from a location, e.g. *Ota kniiga stolas*. 'Take the book from the table' (Anis), *Minä tulin laukaspäi*. 'I came from the shop.' (Mark), *Lapset tullah koulusta*. 'The children are coming home from school.' (ZaiK).

However, it also has some additional meanings. It also expresses:

2) a material form which something is made, e.g. *Kengät ommeldih mustas nahkas.* 'The shoes were made from black leather.' (Anis), *Virsut luajittih tuohesta.* 'The shoes were made from birch bark.' (ZaiK), *Pluat't'u on ommeltu šulkus*. 'The dress is made from silk.' (Pyöl);

3) time when an action beings, e.g. *Meil halguo jäi vie mulloizes talves*. 'We have still got some firewood left from last winter.' (Anis), *Häi on kois jo alguvuvves*. 'He has been at home since the beginning of this year.' (Mark), *Petrunpäivästä otetah lehtie vassaksi.* 'Starting from The Feast of Saints Peter and Paul leaves are taken for the sauna whisks.' (ZaiK), *Huomenizes päiväs algau loma.* 'Vacation starts tomorrow.' (Pyöl);

4) the object of speech or thought, e.g. *Hüö paistah omis lapsis*. 'They were talking about their children.' (Mark), *Ihmiset paissah uuvvesta kiriköstä.* 'People are talking about the new church.' (ZaiK), *Tiijätgo midä heijän elokses?* 'Do you know anything about their lives?' (Pyöl). In this meaning, Bubrih suggests to use a postpositional structure with the postposition *nähte* / *näh*, e.g. *Hän pagizou meččäh nähte* / *näh*. 'He is talking about the forest.';

[91] Linguists connect them to the Finno-Volgaic ending **-stA*, which formed as the Finno-Ugric lative affix **-s* and the ablative affix *-tA* merged (see Hakulinen 1979: 103; OFUJA: 56).

5) extraction from a surface, e.g. *Ota tuo kuva seinästä*. 'Take that picture off the wall.' (ZaiK);

6) getting rid of something, e.g. *Pese kiät lijasta*. 'Wash the dirt off your hands.' (ZaiK);

7) the end of some process, such as work, e.g. *Kylän rahvas tultih hillosta*. 'The villagers came from gathering cloudberries.' (ZaiK);

8) a reason, e.g. *Ruavoin šen omašta halušta*. 'I did it of my own will.' (ZaiV);

9) a referent, work or such for which something is paid, e.g. Kotkozero: *Kalas otin leibiä*. 'I bartered the fish for bread.';

10) also used with certain postpositions, e.g. *Kanat piäštih aijašta alačči.* 'The hens managed to get under the fence.' (ZaiV). (See Bubrih 1937: 39–40; Anisimov 1939: 52–53; Anisimov 1948: 15–18; Beljakov 1948: 47–48; Palmeos 1962: 31–32; Rjagoev 1977: 89–90; Barantsev 1985: 119–121; Rjagoev 1987: 228–229; Zaikov 1999: 43; Markianova 2002: 50–51; Zaikov 2002: 63; Pyöli 2011: 42–43; Zaikov 2013: 92–93.)

7.3.9 Illative

The most common illative ending in Karelian dialects is *-h*. It is added to the strong vowel stem (*kyly-h* from *kyly* 'a sauna', *meččä-h* from *meččä* / *meččy* / *mečče* / *mečč* [*meččä-*] 'a forest', *venehe-h* from *veneh* 'a boat') (see Atlas: map 122; Programmy: 125–127). The ending originates in the Proto-Finnic **-sen* > **-hen*, the elements of which derive from the Finno-Ugric lative endings **-s* and **-n* (Hakulinen 1979: 55, 103; OFUJA: 56). In its ancient form, the suffix obviously could not weaken the stem consonant. Most Karelian dialects have retained only the first segment of the ancient ending, but this change in its structure has not affected gradation; although the suffix now closes a syllable, it does not weaken a strong stem.

Subdialects of the Karelian Proper Padany, Rugozero, and Porozero dialects and Central Ludic subdialects typically replace the illative ending consonant *-h* with a vowel that forms a long vowel with the final vowel of the stem (*kyly-y*, *meččä-ä*, *venehe-e*). In North and Central Ludic dialects, the vowel is *i* (*kyly-i*, *meččä-i*, *venehe-i*); however, the vowel *u* as the illative ending has also been recorded in other subdialects of Central Ludic dialects.

In Karelian Proper and Livvi-Karelian dialects, the ending *-he* has spread into nominals whose stems end in diphthongs. It represents the ancient variant of the suffix which has lost its final consonant. In this instance, the vowel in the ending may change depending on the final vowel in the stem (*mua-ha* / *moa-ha* / *mua-he* from *mua* / *moa* 'ground, land'). When a possessive suffix is added to the word form, it is typical to use a vowel after *h* in all main dialects, including Livvi-Karelian (Karelian Proper: *tuatto-ho-šše*[*h*] / *tuatto-ho-š* / *tuatto-ho-nže* / *tuatto-ho-h* from *tuatto* 'a father', Livvi-Karelian: *toatta-he-s*, *tuatta-he-s*.)

Early descriptive grammars also mention the illative endings *-ze*, *-že* (or their short forms *-z*, *-s*) in all subdialects of the Karelian main dialects. These suffixes derive from the weak grade variant of the historical Balto-Finnic ending **-sen*, which also spread into the Veps and Ingrian languages. The ending occurs in two-stem nominals that have a polysyllabic stem ending with *hV* (*venehe-ze* / *venehe-že*). In the oldest dialect gathering booklets that were filled in 1937 for the dialect atlas of the Karelian language, this ending was recorded only in the Ludic Mikhailovskoye dialect, which bears the strongest Veps influence. Barantsev (1985: 121) has reported the possible use of this ending in the South Ludic dialect. The illative ending *-ze*, *-že* also appears in the notes of early folkloric texts in different dialects, which points to widespread ancient use.

In all standard varieties of Karelian both the illative singular and plural are formed with the case ending *-h*. Only Ahtia's grammar mentions the possibility of using *-he* before a possessive suffix.

Syntactically, the main function of a nominal in the illative case is to:

1) indicate a location at which the action is directed, e.g. *Meččäniekka astui meččäh*. 'The hunter went into the forest.' (Anis), *Pane kniigat škuappah*. 'Put the books into the cupboard.' (Mark), *Tulkua, lapset, luokkah*. 'Children, come to class.' (ZaiK), *Lähten laukkah*. 'I will go to the shop.' (Pyöl). However, the form also has a group of other functions. The most important ones indicate:

2) contact with something, e.g. *Pane paikka piäh*. 'Put a scarf on your head.' (Anis), *Sorsa puuttu verkkoh*. 'A duck got entangled in the net.' (ZaiK);

3) action that someone takes, e.g. *Mie lähten gostih*. 'I will go for a visit.' (Anis), *Lapset mendih sieneh*. 'The children went to gather some mushrooms.' (Mark), *Huomena lähemmä lehteh ta vastah*. 'Tomorrow we will go to gather some leafy branches for livestock and twigs for sauna whisks.' (ZaiK), *Poijat mendih kalah*. 'The boys went fishing.' (Pyöl);

4) a goal, reason, or means of action, e.g. *Ainos ruadau omah tabah*. 'He/she always does things in his/her own way.' (Mark), *Kovalla pakkasella linnut voijah kuolla viluh*. 'Birds may die from freezingly cold weather.' (ZaiK);

5) the time or time limit for action, e.g. *Tämän ruavon jätimmä huomeneh*. 'We left this job for tomorrow.' (Anis), *En ole nähnüh händü vuodeh*. 'I have not seen him for a year.' (Pyöl), *Roštuoh on vielä kolme päivyä*. 'There are three more days to Christmas.' (ZaiV);

6) a limited number, e.g. *Lase yhestä satah*. 'Count from one to a hundred.' (ZaiK);

7) the similarity of things or people, e.g. *Poika on tuattoh*. 'The boy resembles his father.' (Zaik);

8) the illative is also used with certain postpositions to indicate the direction of action or time, e.g. *Huomenekseh suati kalamiehet oltih suarella*. 'The fishermen stayed on the island until morning.' (ZaiK). (See Bubrih 1937: 40; Anisimov 1939: 54; Anisimov 1948: 18–21; Beljakov 1948: 47–48; Palmeos 1962: 28–29; Rjagoev 1977: 90–91; Barantsev 1985: 121; Rjagoev 1987: 229–232; Zaikov 1999: 43–44; Markianova 2002: 51–52; Zaikov 2002: 64; Pyöli 2011: 43; Zaikov 2013: 94–96.)

7.3.10 Adessive

The adessive (adessive-ablative) ending in Karelian Proper dialects is *-lla ~ -llä* (*-ll*, *-l'l'* in the Dyorzha dialect) (*veiče-llä* from *veičči* [*veičče-*] 'a knife', *kirvehe-llä* from *kirveš / kirves* [*kirvehe-*] 'an axe'). However, *-la ~ -lä* may occur after a diphthong, mostly with pronouns (*miu-la* from *mie* 'I').[92] The suffix *-l* is used to express an external local case meaning (adessive-ablative, adessive-ablative-allative) in Livvi-Karelian and Ludic and their neighbouring subdialects of the Karelian Proper southern Myandusel'ga, Suoyarvi, and Suystamo dialects (*veiče-l*, *kirvehe-l*.) (See Atlas: map 123; Programmy: 127.) The suffix *-llA* only occurs in them before possessive suffixes and in fixed forms that have become adverbs (*yhtelläh* 'however'). Suffixes are added regularly to the weak stem of single-stem nominals and to the strong stem of two-stem nominals, and in plural to an inflectional stem that contains a plural affix.

Bubrih's grammar of the common literary language opts for the adessive suffix *-lla ~ -llä*, which combines the adessive and allative meanings, as with Karelian Proper dialects. Ahtia's and Anisimov's grammars are based in this respect on Livvi-Karelian dialects and opt for the suffix *-l*, which expresses also the ablative and allative meanings. In standard Viena Karelian the adessive-allative suffixes are *-lla ~ llä*, *-la ~ -lä* (after a diphthong). In standard Livvi-Karelian adessive and partly also ablative meanings are expressed with the suffix *-l*.

Some of the basic functions of the forms with the suffixes *-lla ~ -llä*, *-la ~ -lä*, *-l* include:

[92] Linguists connect the adessive ending **-llA* to the Finnic ending which formed from the merging of the Finno-Ugric derivational suffix *-lA and the locative suffix *-nA and the resulting assimilation (see Hakulinen 1979: 104; Häkkinen 1985: 87; OFUJA: 57). The final vowel may be reduced in speech stream.

1) the state of being on top of something, e.g. *Lindu istuu oksal.* 'The bird is sitting on a branch.' (Anis), *Rahvas ollah pellol*. 'People are on the field.' (Mark), *Kukat ollah ikkunalla*. 'The flowers are on the windowsill.' (ZaiK), *Kalastajat oldih järvel*. 'The fishermen were on the lake.' (Pyöl);

2) expressing an action or a process in which a person partakes, e.g. *Olin kaksi päivyä kalalla*. 'I was out fishing for two days.' (ZaiK);

3) expressing possessive relations (i.e. an owner), e.g. *Miulla on hyvä kniiga.* 'I have a good book.' (Bubr), *Kanal on kaheksa poigua*. 'The hen has eight chickens.' (Anis), *Tytöllä on pität hivukset*. 'The girl has got long hair.' (ZaiK), *Ongo sinul suuri pereh*? 'Have you got a large family?' (Pyöl);

4) expressing the instrument or means of action (i.e. instrumental), e.g. *Ennen kynnettih adralla.* 'Before, the field was ploughed with a plough.' (Bubr), *Kagrua leikatah žneikal*. 'Oat is cut with a harvester.' (Anis), *Peldoloi künnetäh traktoroil*. 'Fields are ploughed with a tractor.' (Mark), *Kirjutan tekstan tietokonehel*. 'I will type the text on a computer.' (Pyöl);

5) expressing a vehicle, e.g. *Myö souvamma venehellä*. 'We row a boat.' (ZaiK);

6) expressing a means of action, e.g. *Hüö pohatuttih ruandal*. 'They got rich from hard work.' (Mark), *Opastaja pakajau kovalla iänellä.* 'The teacher is speaking in a loud voice.' (ZaiK);

7) expressing a period during which an action takes place, e.g. *Päiväl tuatto kohendi aijan*. 'Father fixed the fence during the day.' (Mark), *Talvella on kovat pakkaset*. 'It is freezing cold in the winter.' (ZaiK);

8) adessive forms are also used with certain prepositional and postpositional structures, e.g. *Mieš aštuu jälkeh härällä.* 'The man is walking behind the ox.' (ZaiV). (See Bubrih 1937: 40; Anisimov 1939: 54–55; Anisimov 1948: 22–24; Palmeos 1962: 32–34; Rjagoev 1977: 91–92; Barantsev 1985: 122–123; Rjagoev 1987: 233–235; Zaikov 1999: 44–45; Markianova 2002: 52–53; Zaikov 2002: 64–65; Pyöli 2011: 43–45; Zaikov 2013: 96–98.)

7.3.11 Ablative

The ablative endings in Karelian Proper are *-lda ~ -ldä*, *-lta ~ -ltä*[93], apart from a group of Myandusel'ga, Suoyarvi, and Suystamo subdialects (*-ld* in the Dyorzha dialect) (*kaivo-lda* / *kaivo-lta* from *kaivo* 'a well', *kato-lda* / *kato-lta* from *katto* 'a roof', *katokše-lda* from *katoš* 'a canopy'). The suffix is added to the weak stem of single-stem nominals and to the strong vowel stem of two-stem nominals or to the inflectional plural stem.

The ending *-l* is used in Livvi-Karelian and Ludic and in the aforementioned subdialects of Karelian Proper to express ablative meanings. As with the elative, in Livvi-Karelian and Ludic it is possible to use the postpositions *päi* / *piäi* to distinguish between the merged adessive and ablative. This has resulted in the formation of new ablative endings, *-lpäi* (*kaivo-lpäi*, *levo-lpäi*) in Livvi-Karelian and *-lpiäi* in Ludic (*kaivo-lpiäi*, *levo-lpiäi*). (See Rodionova 2015: 58; Atlas: map 123; Programmy: 127.)

The ablative ending *-lpäi* is used in Ahtia's grammar and in standard Livvi-Karelian. In Anisimov's grammar, the ablative meaning is used with the common external local case ending *-l*. Bubrih suggests the use of Karelian Proper forms to express the ablative meaning, i.e. *-lda*, *-ldä*. A corresponding variant with a voiceless dental plosive is used in standard Viena Karelian.

The basic function of the ablative is to express:

[93] The ablative ending derives from the Finnic ending **-ltA*, which has developed from the Finno-Ugric local-collective suffix **-lA* and the ablative affix **-tA* (see Hakulinen 1979: 104; OFUJA: 57).

1) removing something from the top of something, e.g. *Harakka hyppäi oksal muah.* 'The magpie jumped to the ground from the branch.' (Anis), *Kaži hüppäi laučalpäi lattiele*. 'The cat jumped to the floor from the bench.' (Mark), *Hiän tuli mereltä.* 'He came from the sea.' (ZaiK), *Nosta lapsi lattiel(päi)*! 'Lift the child from the floor!' (Pyöl), but it has some other basic functions as well, such as to express:

2) action or process from which someone returns, e.g. *Miehet tultih nuotalta*. 'Men came back from seine-fishing.' (ZaiK);

3) a person from whom something is received, e.g. *Miulda otettih kniigan*. 'The book was taken from me.' (Bubr), *Ota interesnoi kniiga vellel*. 'Take that interesting book from your brother.' (Anis), *Minä küzüin vellel abuu*. 'I asked my brother for help.' (Mark), *Sain eklen kaverilta kirjasen.* 'I received a letter from my friend yesterday.' (ZaiK), *Küzüitgo tuatal abuu*? 'Did you ask your father for help?' (Pyöl);

4) a time when an action starts, e.g. *Alotan ruatoni kahekšalta*. 'I start work at eight.' (ZaiV);

5) the ablative is also used in postpositional structures, e.g. *Kevyältä šuaten lašemma verkot täh järveh.* 'Starting in the spring, we lower nets into this lake.' (ZaiK). (See Bubrih 1937: 40; Anisimov 1939: 54–55; Anisimov 1948: 23–24; Palmeos 1962: 34–35; Rjagoev 1977: 93; Barantsev 1985: 121–123; Rjagoev 1987: 233–234; Zaikov 1999: 45–46; Markianova 2002: 53–54; Zaikov 2002: 66; Pyöli 2011: 45–46; Zaikov 2013: 99.)

7.3.12 Allative

In Karelian Proper and Livvi-Karelian dialects, allative forms have merged with other external local case forms (Karelian Proper: adessive-allative *uko-lla* from *ukko* 'an old man', *starika-lla* from *starikka* 'an old man', *mei-lä* from *myö* 'we'; Livvi-Karelian: adessive-ablative-allative *starika-l*, *mei-l*). Only Ludic dialects and Livvi-Karelian Kotkozero, Nekkulitsy, and Rypushkalitsy subdialects have a distinct allative form, with the ending *-le*[94] (*starika-le*, *mei-le*). (See Atlas: map 123; Programmy: 127.) The ending is added to the strong vowel stem of two-stem nominals and to the weak vowel stem of single-stem nominals. Apparently already during the Late Proto-Finnic period the adessive ending **-len* developed into **-lle* as an analogy (Häkkinen 1985: 86), which led into the stem consonant becoming weak. The later shortening of the geminate in Ludic may be a Veps influence, which has not, however, affected gradation in the stem. In plural, the allative ending is added to a stem containing a plural affix. Traces of the historical Balto-Finnic allative ending **-lle* exist in all main dialects before a possessive suffix (*tuato-lle-h* / *toato-lle-h* / *tuata-lle-h* 'for his/her father') and in adverbs (*järilleh* / *järillee* / *därilleh* / *därillee* 'back', *kahalleh* / *kahtalleh* 'wide open'). (See Anisimov 1948: 26; Punžina 1975: 164).

In Ahtia's and Anisimov's common Karelian literary languages, allative meaning are expressed with the external local case ending *-l*, i.e. their system of external local cases is based on Livvi-Karelian. Bubrih suggested to use the same ending in the allative and the adessive, as is the case in Karelian Proper dialects and in Zaikov's grammar. Standard Livvi-Karelian uses the ending *-le* that is distinct from other external local cases.

The basic function of the allative is to express:

1) the direction of motion on top of something, e.g. *Lehmät männäh pellol.* 'Cows go to the field.' (Anis), *Huondeksel menimmö pellole.* 'We went to the field in the morning.' (Mark), *Kuppi kirposi lattiella*. 'The cup fell on the floor.' (ZaiK). However, its basic functions also include to express:

[94] The Balto-Finnic allative relic suffix **-llen* < **-len* derives from the Finno-Ugric derivational affix **-lA* and the lative suffix **-n* (see Hakulinen 1979: 104).

2) action or process into which someone partakes, or the goal of action, e.g. *kävvä murginale* 'to start one's breakfast' (Mark), *Läkkä kalalla!* 'Let us go fishing!' (ZaiK)

3) recipient, or person who receives something as the result of an action (dative function), e.g. *Miulla annettih kniigan*. 'They gave me a book.' (Bubr), *Anna lapsil marjua*. 'Give the children some berries.' (Anis), *lahjattua muamale kukkazet*. 'to give mother the flowers as a present' (Mark), *Anna leipäpalani koiralla*. 'Give the dog a piece of bread.' (ZaiK), *Anna minule sanakniigu!* 'Give me a dictionary!' (Pyöl)

4) the allative, similarly to other local cases, is used with certain postpositions, and it expresses the goal or direction of action, e.g. Tikhvin: *ukolla varoin* 'for the man'. (See Bubrih 1937: 40; Anisimov 1939: 54–55; Anisimov 1948: 24–26; Palmeos 1962: 32–34; Rjagoev 1977: 91–92; Barantsev 1985: 123; Rjagoev 1987: 233–235; Zaikov 1999: 44–45; Markianova 2002: 54–55; Zaikov 2002: 64–65; Pyöli 2011: 46; Zaikov 2013: 96–98.)

Cases with concrete meanings

This category includes those cases which, unlike local cases, bear a concrete meaning (Tables 37 and 38). All cases with concrete meanings may be divided into three groups based on their formation and use: 1) productive, 2) marginal, and 3) late-formed cases.

The first group comprises the abessive and comitative, which are rather productive in all main dialects of Karelian. The comitative has two forms with separate origins: 1) a comitative with the ending *-(n)neh*, which is productive in some dialects, whereas in others it has fallen out of use; 2) a comitative with the ending *-nke*(*na*) that has developed from a postposition.

The second group consists of marginal cases. They had originally spread into all dialects of Karelian but fell out of use for various reasons. Marginal cases include the prolative and instructive. Most cases being examined here are no longer productive; instead, they have become fixed into adverb and postposition forms in Karelian dialects. The use of cases is limited first and foremost by the semantics of the nominal. Secondly, postpositional case structures have replaced these cases (Rjagoev 1987: 236).

The third group is formed by late-formed postpositional cases, the endings of which result from the merging of an earlier suffix (usually a genitive, partitive, or local case ending) and a reduced postposition (Kovaleva & Rodionova 2011: 79). Livvi-Karelian and Ludic have been most susceptible to this process, apparently due to the influence of several corresponding forms in the Veps language. However, some Karelian Proper dialects, South Karelian dialects in particular, also have the tendency of forming postpositional cases. These formations in Karelian dialects are in the process of turning from a postpositional structure into a living case. During this process, independent postpositions gain such features as a front and back vowel variant, lose their stress, they are reduced, the initial consonant of the postposition is assimilated with the final consonant of the case, and the pause between the postposition and the nominal is lost. As a result, the postposition loses its independent lexical and semantic meaning. (Punžina 1975: 154; Zaitseva 1981: 38–40). Features of postpositions turning into case endings also include the correspondence of formal and actual number, agreement between the head and its attribute, and repetition of the suffix in parallel sentence constituents; the most important one, however, is the openness of lexical choice (Zaitseva 1981: 40–41; Kross 1983: 253). Some postpositional cases share most of the aforementioned features, while others are in a state of change, as their meanings may be expressed in both ways. Some never finished this process, as the dialect has since died. Late-formed postpositional cases occurring in Karelian dialects are the egressive, approximative, terminative, and exessive, but also the elative ending with *-späi* / *-spiäi* and the ablative ending with *-lpäi* / *-lpiäi*, which have been detailed in the chapter on local cases.

7.3.13 Abessive

The abessive ending in Karelian Proper is *-tta ~ -ttä*[95] (*-tt* in the Dyorzha dialect) (*kor'a-tta* / *gor'a-tta* from *kor'a* / *gor'a* 'trouble', *raha-tta* / *den'ga-tta* from *raha* / *den'ga* 'money'). This ending is also typical of Livvi-Karelian and Ludic (*gor'a-tta*, *den'ga-tta*), although other ending variants occur in parallel with them. It is not possible to fully define the rules for using a particular variant. The suffix *-ta ~ -tä* (*gor'a-ta*, *den'ga-ta*) occurs in Livvi-Karelian and Ludic subdialects (excluding North Ludic dialects), as well as in Veps. The geminate *tt* occurs in this case before a possessive suffix. Abessive forms ending with *-ttah ~ -ttäh* occur basically in all Livvi-Karelian subdialects (*gor'a-ttah*, *den'ga-ttah*). Apparently, the *h* in the suffix can be connected the corresponding possessive suffix. An analogical suffix, *-ttai* (**h > i*), occurs in North Ludic subdialects (*gor'a-ttai*, *den'ga-ttai*). (See Atlas: map 124; Programmy: 127.) Regardless of whether the *t* in the ending is geminated or not, abessive endings are added either to the plural stem or the weak vowel stem of single-stem nominals and to the strong vowel stem of two-stem nominals, in which inverse gradation occurs.

The abessive case is rather productive in Karelian. Only in western dialects of Viena Karelian, which have been heavily influenced by Finnish, is it possible to denote a lack of something with a prepositional structure instead. This structure comprises the preposition *ilman* 'without' and a nominal in the partitive (*ilman gor'ua* 'withouth trouble', *ilman rahua* 'without money'). A double negative in which the abessive form is combined with the preposition *ilman* occurs in some Karelian Proper subdialects (*ilman gor'a-tta*, *ilman den'ga-tta*). (Programmy: 127.)

In the grammars of the common Karelian literary languages and standard Viena Karelian the abessive is formed with the ending *-tta ~ -ttä*. Ahtia's grammar confirms the Livvi-Karelian representation of this phenomenon, i.e. the possibility of using the endings *-ta ~ -tä*, *-ttah ~ -ttäh*. The ending *-ttah ~ ttäh* is used in standard Livvi-Karelian.

The abessive case expresses the loss or lack of something or someone, and also that an action takes place in contrary to something, e.g. *Ei ole kylä rahvahatta*. 'Without people there is no village.' (Anis), *Külüttäh on huono elos*. 'Life is bad without a sauna.' (Mark), *Elä mäne pihalla lakitta ta takitta*. 'Do not go outside without a cap and a jacket.' (ZaiK), *Dengattah et voi nimidä ostua*. 'You cannot buy anything without money.' (Pyöl). (See Bubrih 1937: 41; Anisimov 1939: 56; Anisimov 1948: 26; Beljakov 1948: 49–50; Palmeos 1962: 37; Rjagoev 1977: 93; Barantsev 1985: 83; Rjagoev 1987: 235–236; Zaikov 1999: 46; Markianova 2002: 55–56; Zaikov 2002: 66; Pyöli 2011: 47; Zaikov 2013: 100.)

7.3.14 Comitative

In Karelian dialects, there are three ways to express belonging or being with something: with the comitative case, which is formed by adding two separate suffixes to the word stem, or with a postpositional structure.

The historical comitative with the suffix *-neh* / *-nneh* (Livvi-Karelian)[96] is added, regardless of meaning, only to a plural stem. It has been retained the best in the Karelian Proper dialects

[95] The abessive ending derives from the Finnic affix **-ttA < *-ˇttAk*, which consists of the caritive adjective and lative suffixes (see Hakulinen 1979: 105; Häkkinen 1985: 88; OFUJA: 58).

[96] Some linguists connect this ending to the Proto-Uralic lative that ends with **-n* (see Hakulinen 1979: 99), others to the Finno-Ugric locative ending with *-nA* (Häkkinen 1985: 89). Genetz connects the ending to the instructive to which a possessive suffix *-h* has been added. It denotes ownership, to which an instructive attribute of a comitative nominal refers, and also the formation of the comitative from a plural stem. The possessive nature of the *-h* is evidenced by some rare cases in which the comitative ending occurs in conjunction with the 1st and 2nd person possessive suffix in Karelian Proper dialects. (See Genetz 1880: 191–192.)

of the Karelian Republic, particularly in the Viena Karelian dialects. However, it does not qualify as a living case, as it does not express differences in number, which is why it can lose the *i* plural affix (*akko-neh* from *akka* 'a wife'). The state of being with something is quite often expressed with a postpositional structure (*perehen kera* / *ker* 'with one's family', *tuaton kera* / *keralla* / *keral* 'with one's father'). (Atlas: map 133; Programmy: 129.) The comitative with the ending *-neh* / *-nneh* (*perehi-neh* / *perehi-nneh* from *pereh* 'a family') is a marginal case in Livvi-Karelian, Ludic, and Karelian Proper enclave dialects, which has been replaced in part or completely by a postpositionally-formed comitative. The historical comitative endings have in this instance fixed into adverb suffixes.

The postpositionally-formed comitative with the endings *-nke*, *-nker*, *-nkel* (Livvi-Karelian, Ludic), *-nkeла* ~ *-nkelä* (Valday), *-nken* (Dyorzha), *-nkena* ~ *-nkenä* (Tolmachi) was formed as the genitive ending *-n* and the reduced postposition *kera* 'with' merged (see OFUJA: 56). It has spread into Livvi-Karelian, Ludic, and Karelian Proper enclave dialects (*aka-nke* / *aka-nkel*, *boaba-nkel* / *buaba-nke* from *boaba* / *buaba* 'a grandmother', *perehe-nke* / *perehe-nkel*). (See Kovaleva & Rodionova 2011: 85; Programmy: 129.) Considering the rather unified representation of the case ending, the postposition had apparently began to turn into a case ending in the Old Karelian language. This is evidenced by the fact that it is basically impossible to convey the comitative meaning with any other form, whereas the postposition has lost its independent meaning and has fallen out of use. In addition, basically all signs of a postposition's turning into a case ending are shown, with the exception of assimilation. Although this feature is apparent in some Karelian Proper Tolmachi subdialects, the consonants in the suffix have regressively assimilated to *-kke* (*perehe-kke*, *naize-kke* from *naine* 'a wife'). (Atlas: map 133.) Postpositionally-formed comitative endings are added regularly to the weak stem of single-stem nominals and to the strong vowel stem or plural stem of two-stem nominals.

Historical use of the comitative with the ending *-neh* is confirmed in Ahtia's grammar and standard Viena Karelian, in which this form in particular is used as a living case. The postpositionally-formed comitative has been codified in Markianova's normative Livvi-Karelian grammar, although it is mentioned that also a comitative ending with *-nneh* is possible, although only in the plural. In the common Karelian literary languages the sense of being with something is conveyed with a postpositional structure including the postposition *kera* (*tuaton kera* 'with father').

The basic function of the comitative is to express that an action is taken with someone, e.g. *Tuatto poijanke lähtiettih linnah*. 'Father went to the city with his son.' (Mark), *Naini läksi matkah poikineh ta tyttärineh*. 'Woman went with her son(s) and daughter(s).' (Zaik). The comitative may also function as an attribute, e.g. to express a part of a whole: *Buabo niegloi alazet kahten sormenke*. 'Grandmother knitted mittens that had two fingers.' (Mark), *Puuloi viettih oksinneh*. 'The trees were taken with their branches intact.' (Pyöl). (See Anisimov 1948: 27; Palmeos 1962: 37; Rjagoev 1977: 94; Barantsev 1985: 124; Rjagoev 1987: 237; Zaikov 1999: 46; Markianova 2002: 56; Zaikov 2002: 67; Pyöli 2011: 47–48; Zaikov 2013: 101.)

7.3.15 Instructive

Only some grammars of Karelian classify the instructive as a distinct case. The main function of the instructive is to express an instrument or means of an action. In contemporary Karelian dialects, this meaning is conveyed with the adessive, which has gradually replaced the instructive as a productive case. Regardless, the instructive occurs in Karelian speech, although in its use it falls between a case and an adverb.

All dialects of Karelian feature several instructive forms that have fixed into adverbs or postpositions, thus making it possible to analyse their structure. The instructive ending is *-n*[97] (*omi-n šilmi-n* / *silmi-n* 'with one's own eyes', *pal'l'ahin jalloin* / *jaloin* / *d'alloin* / *d'aloin* 'with bare feet'). The ending is added to a plural stem, even though it may possess either the plural or the singular meaning. However, grammars give only a few examples of singular instructive use — mostly in adverbs — particularly in Karelian Proper enclave dialects (see also Õispuu 1994: 172). Genetz mentions the possibility that the instructive suffix may turn into *i* or be completely lost in Livvi-Karelian. Later, Ahtia comments that these forms only occur in the singular and only in adverbs. Thus, Ahtia's is the only early normative grammar which details the formation of the instructive in the singular as well as in the plural. Bubrih also mentions such forms but regards them as "instructive formations" (Bubrih 1938: 41). The instructive is considered a distinct case in the grammars of the contemporary standard varieties of Karelian, used only in the plural and in some fixed phrases.

The instructive expresses the means and instrument of an action, e.g. *Häi talvelgi kävelöü pal'l'ahin piälöin*. 'He goes about bear-headed even in the winter.' (Mark), *Hiän astuu pitin harppahuksin*. 'He walks with a long stride.' (ZaiK). The instructive also has some secondary meanings, such as the amount and degree of the action, e.g. *Ennein taloloissa pijettih viisin lehmin*. 'In the old times, people kept five cows in their houses.' (Zaik), *Kolmin kerroin päiväs pidää kažii süöttiä*. 'The cat needs to be fed five times a day.' (Pyöl), or its period, e.g. *Kezäzin hüö eletäh suarel.* 'In the summer, they live on an island.' (Mark), *Toisin ajoin hiän on parempi, toisin pahempi.* 'Sometimes he is better, sometimes worse.' (ZaiV). (See Anisimov 1948: 27; Palmeos 1962: 37; Rjagoev 1977: 94–95; Barantsev 1985: 124; Rjagoev 1987: 237; Zaikov 1999: 46; Markianova 2002: 58; Zaikov 2002: 67; Pyöli 2011: 49; Zaikov 2013: 102.)

7.3.16 Prolative

Prolative formations, which some linguists consider to be adverbs — i.e. the case ending *-čči* / *-či* is considered a derivational adverb suffix — and which others connect to nominal cases, are typical of all Karelian dialects. According to Rjagoev, prolative formations count as adverbs on the basis of syntactic criteria, as they express action. Syntactically, they are used as adverbials, and they are added to their heads without declension. However, the prolative ending may be added to either a singular or a plural stem, and it may receive a genitive attribute, which is why prolative formations could count as noun case forms. (Rjagoev 1994: 20–26.)

In the present-day evolutionary phase of Karelian dialects, the prolative is a marginal case with restricted use. The considerable number of adverbs that are derived from the prolative and postpositions that contain the prolative ending show that the prolative has been a rather developed case in the past, but the need for it has declined, and it has been replaced by postpositional structures.

The prolative ending in all Karelian Proper dialects is *-čči*[98] (*pello-čči* from *peldo* / *pelto* 'a field', *kahi-čči* from *kakši* / *kaksi* 'two'). The prolative suffix *-či* (*peldo-či*, *kahti-či*) is typical of Ludic. In Livvi-Karelian dialects the suffix variant with a single affricate has been most prevalent, but it is also possible to use the suffix that has the geminate *čč* (*pello-čči* / *pello-či*, *kahi-či*). The suffix is added to the vowel stem and, regardless of its structure, it requires the weak grade in single-stem nominals. In plural, the suffix is added to the plural inflectional stem.

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[97] Linguists connect this ending to the Finno-Ugric genitive that ends with **-n* (see Hakulinen 1979: 106; Häkkinen 1985: 90; OFUJA: 59).

[98] Linguists connect this ending to the Proto-Finnic suffix **-ittsek* (see Hakulinen 1979: 108).

The use of a prolative ending with *-či* as a case is mentioned only in the normative grammars of Livvi-Karelian, whereas in other normative grammars formations containing the prolative suffix are classified as adverbs.

Nominals in the prolative are used to express a place through or by which an action takes place, e.g. *Müö tulimmo kodih mečäči*. 'We came home through the forest.' (Mark), *Islandieh piäzöü vaigu meriči*. 'You can get to Island only by sea.' (Pyöl), an animate or inanimate referent, with which an action is performed, e.g. *Kirjazen hänele tüönnin tüttäreči*. 'I sent her a letter through my daughter.' (Mark), *Sain tiijon tekstuviestiči*. 'I received the word by a text message.' (Pyöl), a state, e.g. *Jalloiči häi on ülen voimatoi*. 'His/her legs are very weak.' (Mark), and also the number of repetitions and degree of action, e.g Tolmachi: *kahičči ajelimma* 'we travelled twice'. (See Rjagoev 1977: 95; Barantsev 1985: 124–125; Rjagoev 1987: 238; Markianova 2002: 57; Pyöli 2011: 48–49.)

7.3.17 Other postpositionally-formed cases

In most descriptions of Karelian that serve as the primary sources of this study, only the comitative with the ending *-nke* is detailed in full. In some descriptive Livvi-Karelian and Ludic grammars, the possibility of using the elative and ablative postpositional suffix variants *-späi*, *-spiäi*, *-lpäi*, *-lpiäi* is mentioned.

The description of the Valday dialect by Palmeos distinguishes two postpositionally-formed cases: the approximative and the egressive, which form a group of cases with a local meaning (Palmeos 1962: 35). Corresponding formations are typical of other Karelian dialects as well.

The most widely-spread postpositionally-formed case, the **approximative**, occurs in Livvi-Karelian and Ludic, apparently due to the influence of Veps grammar (Zaitseva 1981: 140–148; Kovaleva & Rodionova 2011: 88). The approximative is rather rare in the South Karelian dialects of Karelian Proper, including the enclave dialects. The approximative endings are *-lluo* ~ *-llyö*, *-lloh* ~ *-llöh* (Ludic), *-llu* ~ *-lly* (Ludic), in dialects also *-luo* ~ *-lyö*, *-lluoh* ~ *-llyöh*, *-lluh* ~ *-llyh*, *-llui* ~ *-llyi*, etc. (*minu-lluo* / *minu-llu* from *minä* 'I', *toata-lluo* / *tuata-lluo* from *toatto* / *tuatto* 'a father', *iža-llu* from *ižä* 'a father'). (ALFE I: 336–338; Atlas: map 134; Programmy: 129.) The ending was formed as the genitive ending, affected by regressive assimilation, and postposition *luo* < **loona*, merged (see Punžina 1975: 156; Zaitseva 1981: 141; Kovaleva & Rodionova 2011: 87). The approximative bears all the marks of a postposition's turning into a living case (see Punžina 1975: 156; Zaitseva 1981: 141; Kovaleva & Rodionova 2011: 87). While it has replaced the corresponding postpositional structure in the main dialects, the postposition which has retained its lexical and semantic meaning is still used in the South Karelian dialects of Karelian Proper, meaning that the formation process of the postpositional case in those dialects is still ongoing.

The main function of the approximative is to express movement toward something or someone, i.e. approaching a target, e.g. Reboly: *Mänöy poigielluo*. 'Goes up to the boys.' (IKMN: 29); Yushkozero: *Mänöy akalluo*. 'Goes to the wife.' (IKMN: 34); Valday: *Istuoče kivellä* *валgiezеллио* *koivuzеллио*. 'Sit on the rock by the white birch.' (Palmeos 1962: 35); Dyorzha: *Brih tulow tytöllyä*. 'The boy comes to the girl.' (DKT: 104); Tolmachi: *Diedolluoh, buabolluoh himottaw*. '(sb) feels like going to grandfather and grandmother.' (OKR: 59); Vedlozero: *Yhteh kai anopelluo*. 'All together to (see) mother-in-law.' (IKMN: 11); Vidlitsa: *Dai meni sinne papillo*. 'And (he/she) went to the priest.' (LSK: 26); Rypushkalitsy: *Myö mänemmö tuatalluo*. 'We are going to (see) father.' (IKMN: 4); Salmi: *Häi tuou sen sumkan mužikalluo*. 'He will bring the bag to the man.' (KKN II: 90); Central Ludic: *Hän putui sinnä akallu*. 'He/she ended up at the old woman's place.' (LKN: 181). In addition, in the Karelian Proper enclave dialects the approximative may be used to express the state of being next to or by an object, e.g. Valday:

Soldoatta seiźow verejiilüe. 'The soldier stands by the door.' (Palmeos 1962: 35); Tolmachi: *Nämä tyttözet jiädih maguamah tällyö buabož'elluo*. 'These girls spent the night at this grandmother's place.' (OKR: 52); Dyorzha: *Pualen yäd' tyttölly, pualen yäd' brihallua*. 'Half the night at the girl's place, half the night at the boy's place.' (OKR: 257).

The approximative form with the ending *-nno* < **n + loona*, used in North Ludic and the Mikhailovskoye dialect, which has been formed by progressive assimilation (*tuata-nno*, *minu-nno*), is widely spread in the North Veps dialect (Zaitseva 1981: 141; Atlas: map 134; Programmy: 129).

The approximative shares the same group with the **egressive**, which, according to research, occurs in the Valday and Dyorzha dialects of Karelian Proper (Palmeos 1962: 35; Punžina 1975: 157) and in the Veps language (Zaitseva 1981: 150). The egressive endings *-лduo ~ -ldüe*, *-ldu ~ -ldy*, *-ldua ~ -ldyä*, *-lduw ~ -ldyw* derive from the postposition *luoda* 'from some place', which has been affected by reduction. The egressive expresses leaving something or someone, but it also denotes a place next to something, e.g. Dyorzha: *Uijiin miä urholdu*. 'I left the man.' (Punžina 1975: 157); *Tytär hyppiw kojildu miwn vastah*. 'Daughter hurries to me from the house.', *A illal tuldih brihalduw pojat tänn*. 'But in the evening, the boys came here from the young man's place.' (DKT: 109); Valday: *Paimen tuлow kodih akaлduo täldüe*. 'The shepherd comes home from this old woman.' (Palmeos 1962: 35).

Formation of the egressive bears the basic phonetic, morphological, and syntactic features of a case. However, it must be noted that towards the end of the life span of Dyorzha and Valday dialects, the postpositional egressive did not count as a productive case, as there are few recordings of its use at that time. It is possible that in a certain development period of these dialects, egressive case formation has been quite developed, but the need for it declined due to the use of the elative and ablative that convey the same meaning. However, it is also possible that the case did not have time to fully develop before these dialects died.

There are some instances of the egressive endings *-nnu* (*päi*), *-nno* (*päi*), *-llu* (*piäi*) occurring in Ludic; an apparent Veps influence (see Zaitseva 1981: 149; Atlas: map 135; Programmy: 129).

Research has identified the **terminative** case in Livvi-Karelian and Ludic dialects, with the endings *-ssah ~ -ssäh*, *-ssai*, *-ssuai* (*yö-ssäh* from *yö* 'a night') (Atlas: map 137; Programmy: 131). It was formed as the illative ending *-h* merged with the reduced preposition *suah* 'until', after which the change *h* > *s* occurred due to regressive assimilation (Dubrovina 1956: 74). This explains the irregular use of the strong grade before the ending. In Livvi-Karelian, the ending is affected by vowel harmony, whereas in Ludic the ending contains only back vowels, as it does in Veps (see Zaitseva 1981: 136).

Nominals in the terminative express the direction of movement toward a target and a concrete time or place (Rodionova 2015: 60), e.g. *Gu salvammo lagessah*... 'If we make the notched corner reach the roof...' (KKVS); Kotkozero: *Toizeh vuodessah sorrettu meччü kuivi*. 'The forest that had been used for logging until the year before last has dried up.' (OKRLD 1969: 143); Nekkulitsy: *Uijammo randassah*. 'We swim to the shore.' (IKMN: 7); Rypushkalitsy: *Sildu on dvorччassah*. 'The bridge goes all the way to the palace.' (IKMN: 5); South Ludic: *Präkkässuai* 'All the way to Pryakka' (OLR 1978: 28).

None of the postpositional cases detailed in this chapter are mentioned in the normative grammars of Karelian. Individual linguists who have studied Karelian postpositional cases find that it would be well founded to include the approximative and terminative, which are widely spread in the spoken language, in standard Livvi-Karelian. (Kovaleva & Rodionova 2011: 90).

Ahtia's grammar distinguishes the **exessive** case that ends with *-npäi*, *-napäi*, *-näpäi*, which has formed from the merging of the essive ending and the postposition *päi* (*alahanpäi* 'from below') (Ahtia 1938: 40). Apparently the rare exessive case, which has been recorded

mainly as an adverb in colloquial Livvi-Karelian (*taganpäi* 'from behind'), has been formed analogically to the postpositional elative and ablative. The exessive ending *-npäi*, *-napäi*, *-näpäi* is therefore a rather late postpositional formation, although the case itself is considered to be quite old. According to Bubrih, by the end of the Proto-Finnic period a group of secondary cases that shared the affix *-n* and indicated a place had begun to form, which is when an essive with the suffix *-nnA* was also formed analogously to the inessive and adessive (Bubrih 2005: 190–191). The formation of the original exessive with the ending **-nta* ~ *-ntä*, traces of which linguists have found from the Ingrian language and Eastern Finnish dialects, should be dated to this period (OFUJA: 59).

Rare in its use, the exessive expresses exiting a state, e.g. *Poiga heitettih talon vanhimina päi*. 'The boy was removed from his position as the eldest of the house', *tuli saldattana päi* '(he/she) returned from military service' (Ahtia 1938: 40); Syamozero: *Še miez vast ulgonpäi tuli*. 'The man just came from outside.' (KKVS). If the exessive were spread more widely, it could be included in the group of state cases alongside the essive and the translative.

7.4 Possession

Possession is a universal category of meaning whose main function is to define an object as being in a possessive relationship with an animate or inanimate referent. Possession is expressed by lexical, syntactic, and morphological means, the group of which depends on the language. (LÈS.) Karelian, like other Finnic languages, expresses possession analytically: with genitive structures (*muamon kiät* / *keät* 'mother's hands'), with a personal pronoun (*miun* / *minun muamo* 'my mother'), with morphologically explicated possessive compounds (*meččä*| *viero* 'the edge of the forest'), and with possessive suffixes.

Finnic possessive suffixes are usually regarded as inflectional suffixes, as in the nominative they are added to the inflectional stem of the nominal without altering the word's class or its basic meaning (VISK § 95). Unlike derivational suffixes, possessive suffixes are added to the end of a word, after number affixes and case endings.

The possessive suffix paradigm of Finnic languages comprises the 1sg, 2sg, 3sg, 1pl, 2pl, and 3pl forms, although in Karelian dialects only some forms have survived. Karelian Proper and Livvi-Karelian dialects have retained possessive suffixes to a certain extent. They are not used in Ludic, with the exception of South Ludic subdialects with a significant Livvi-Karelian influence. Descriptive grammars of Karelian do not go into detail in their presentation of possession, as can be seen in Table 39.

The 1sg possessive suffix in Karelian is *-ni* (*tuatto-ni* / *toatto-ni* / *toata-ni* / *tuatta-ni* 'my father', *kuldaze-ni* / *kultase-ni* / *kuldaize-ni* 'my darling'). The variant *-ne* or the reduced variants *-n'* and *-n* can occur in dialects. South Ludic subdialects use the suffixes *-ini*, *-in'* (*tuatuo-ini*), which occur in Veps dialects (see Zaitseva 1981: 167) and in Eastern Finnish dialects (VISK § 95). 2sg possessive suffixes are *-š*, *-s*, *-z* (*tuatto-š* / *toatto-š* / *toata-s* / *tuatta-s* / *toatto-z* 'your father'), and in South Ludic, *-iš* (*tuata-iš*). (see also Punžina 1975: 83; Programmy: 131.)

In practice, possessive suffixes have completely fallen out of use in the plural and they have been replaced by analytical structures. However, it is possible to use singular possessive suffixes in the plural in Karelian Proper and Livvi-Karelian (*muamo-ni* 'our mother', *muamo-š* / *muamo-s* / *moama-s* 'your mother'). The plural possessive suffix *-na* ~ *-nä*, which is used to express 2pl, sometimes also 1pl (*muamo-na* 'your / our mother'), has been recorded in the Karelian Proper dialects of Russian Karelia. (Programmy: 131.) Also, in the Suystamo subdialect of Karelian Proper and the Syamozero subdialect of Livvi-Karelian it is possible to use the 2pl possessive suffix *-tto* ~ *-ttö*, which derives from the corresponding personal ending (Ojansuu 1907: 119; Rjagoev 1987: 157–159).

The possessive suffixes *-h* (*tuatto-h* / *toatto-h* / *toatta-h* 'his/her/their father') tai *-že* / *-ze*, *-sa*, *-s*, *-šše*h / *-sseh* are used in 3sg when the preceding syllable includes the consonant *h* (*kodihi-ze* / *kodihi-s* / *kodihi-sseh* / *kotihi-s* / *kotihi-ns* 'to his/her home') (Programmy: 131; Atlas: map 132). The vocalisation of *h* is typical of the Padany subdialects and their neighbouring Rugozero dialects (*tuatto-o*).

Possessive suffixes are positioned in a word between case endings and particles. In the nominative, genitive, and accusative cases they are added directly to the strong vowel stem, and in other case forms to the case ending. Also, the phonemes in the case ending may be altered, so in the illative an epenthetic transitional vowel is added between the case ending and the possessive suffix, or in Livvi-Karelian the ending *-ssa* ~ *-ssä* is used in the inessive, for instance. There are phonetic grounds for the use of the strong grade before the 1sg possessive suffix in the nominative, genitive, and accusative forms, which cannot be said for the 2sg and 3sg forms, as the affixal *-š* and *-h* close the final syllable of the stem without prompting gradation. Karelian singular possessive suffixes derive from the Finnic possessive suffixes **-me*, **-te*, **-sA* (see Häkkinen 1985: 97) / **-mi*, **-ti*, **-sen* (see Hakulinen 1979: 113; OFUJA: 63), which are added regularly to a strong stem. The suffixes went through a variety of chances during their development. Some got shortened, but the resulting closed syllable no longer affected the consonant quality of the stem. The 2pl possessive suffix *-na* ~ *-nä*, the structure of which cannot affect the consonant elements in the stem, apparently derives from the Early Proto-Finnic possessive suffix **-ndek* > **-nnek* (cf. *-nne* in Finnish), in which *n* would seem to indicate the plurality of the possessed item. (See Hakulinen 1979: 112–113; OFUJA: 63.)

Bubrih's common Karelian literary language allows the use of singular possessive suffixes (Bubrih 1937: 41–42), which is also true for the contemporary standard varieties. Ahtia suggests that the full paradigm of singular and plural possessive suffixes be used.

The main function of possessive suffixes is to indicate ownership; that something belongs to the 1st, 2nd, or 3rd person singular or plural. Both descriptive and normative grammars note the limits of morphologically indicated possessivity. Possessive suffixes in Karelian are limited to express mostly family relations (particularly when addressing someone), e.g. *Tüttäreni tuli lomale kodih*. 'My daughter came home on her vacation.' (Mark), *Kysyn siitä muamoltani*. 'I will ask my mother about that.' (Zaik). Moreover, they are only used with reflexive and personal pronouns, e.g. *Prostikkua milmani*. 'Forgive me.' (Zaik). There are cases in Karelian Proper dialects of possessive suffixes being used with nouns relating to body parts and with words that denote ownership, as shown by Zaikov's grammars: *Jalkani on kipie.* 'My leg hurts.', *Pirttis ei ole vielä vanha.* 'Your house is not old yet.' (ZaiK). (See Anisimov 1948: 29–30; Punžina 1975: 85–88; Barantsev 1985: 84; Rjagoev 1987: 157–159; Zaikov 1999: 47–48; Markianova 2002: 59; Zaikov 2002: 108–109; Zaikov 2013: 124–125.)

It would appear that morphological means of expressing possessivity have been replaced by syntactic and lexical means in the Karelian language. A large group of adverbs that are derived from fixed nominal forms and end with a possessive suffix point to their wide-spread use in the past.

7.5 Comparative forms of adjectives

The adjective is a lexical-semantic class of predicative words. Adjectives characterise beings, things, states, or events by expressing their actual or imaginary qualities (VISK § 603). Similarly to other Finnic languages, adjectives in Karelian have the same grammatical categories as nouns, i.e. number and case. Nouns and adjective also have the same inflectional forms and types. Adjectives are fully in agreement with the nouns that function as their heads

in number and case (*hyvä päivä* 'a good day' – *hyvät päivät* nom. pl – *hyvih päivih* ill. pl). Syntactically, adjectives are mostly used as attributes, but they can also function as predicatives.

Qualitative adjectives express a quality, whereas relative adjective express a relative feature of the referent, i.e. a quality of the referent in relation to some other referent, feature, or event. Relative adjectives are scalar (VISK § 605). They have comparative forms and grammatical categories that express the grade of the referent or action. (LÈS.) Like other Finnic languages, Karelian also has three comparative forms: 1) the positive, or the basic grade, with expresses a quality without a comparative referent, 2) the comparative, and 3) the superlative. Comparison is the process of comparing beings, states, or events to one another with respect to the degree or quantity of a given quality (VISK § 633). Comparative forms may also be formed from certain nouns and adverbs.

As comparative and superlative affixes precede grammatical suffixes and the meaning is changed once they are added to an adjective, contemporary Finnic language research classifies comparative affixes as derivational affixes. In grammars of Karelian, the comparative forms of adjectives are usually detailed under inflection (Tables 41 and 42).

The basic grade of the adjective, the positive, has no markers. The comparative is formed with the suffixes *-mbi*, *-mpi*, *-mb* (*piene-mbi* / *piene-mpi* / *piene-mb* from pieni 'small') in the nominative singular and with *-mba- ~ -mbä-*, *-mpa- ~ -mma- ~ -mmä-* in the oblique cases (*piene-mmä-t* / *piene-mbä-t* nom. pl, *piene-mbä-h* / *piene-mpä-h* ill. sg).[99] Comparative affixes are added regularly to the weak vowel stem of single-stem adjectives and to the strong vowel stem of two-stem adjectives. Adjectives that have a stem ending with *a ~ ä* the final vowel in the stem changes into *e* (*kove-mbi* from *kova* 'hard').[100] The consonant element in the suffix is subject to gradation in Karelian Proper dialects (*mb* / *mp* : *mm*) in accordance with the case ending that follows it.

There are two ways of forming the superlative in the Karelian language: the suffixal one, and the analytical one of forming it from several parts. The morphological form of the superlative is weakly productive. Its affixes are *-in* and in some individual Ludic subdialects *-im* in the nominative singular (*vanh-in* / *vanh-im* from *vanha* / *vahna* / *vahnu* / *vanh* [*vanha-* / *vanha-*] 'old'). In oblique cases[101] its affixes are *-imba- ~ -imbä-*, *-impa-* / *-impä-* : *-imma-* / *-immä-* in Karelian Proper dialects (*vanh-imma-t* nom. pl, *vanh-imba-h* / *vanh-impa-h* ill. sg) and *-ima- ~ -imä-* in Livvi-Karelian and Ludic (*vahn-ima-t* / *vanh-ima-t* nom. pl, *vahn-ima-h* / *vanh-ima-h* ill. sg). Depending on the structure of the affix they are added either to the weak or strong-grade vowel stem. The affix also causes alternation of the final vowels *a*, *ä*, *e* and long vowels and diphthongs (VV) in a vowel stem (*a* : Ø, *ä* : Ø, *e* : Ø, *VV* : *V*) (*kov-in* from *kova* 'hard').[102] In some subdialects of the Karelian Proper enclave dialects, the short *i* in the affix may be replaced by the diphthong *ii* [*ij*] (*vanh-iin*). Nominals with a stem ending with a labial vowel most often form their analytical superlative form with a quantifier attribute (*kaikkie* / *kaikkii hienombi* 'the finest one'). In Livvi-Karelian Syamozero subdialects, the superlative forms of nominals that have a stem ending with a diphthong may end with *-jin* (*-jima- ~ -jimä-*) (*pime-jin* from *pimei* 'dark'). (See Programmy: 133; Atlas: map 138.)

In dialect speech, the morphological form of the superlative has in practise been replaced nearly in full by the analytical form, which is formed with such quantifier attributes as *kaikkie* / *kaikkii* 'most', *kaikkiah* / *kaikkieh* 'of all', *kaikista* / *kaikis* 'of all', *suamo* / *suamoi* 'most' and similar words together with the positive or the comparative form of the adjective.

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[99] Linguists connect the comparative suffix with the Proto-Uralic / Proto-Finno-Ugric affix **-mp* (OFUJA: 68; Hakulinen 1979: 116).

[100] See chapter 3.4 *Other word-final vowel alternations*.

[101] The superlative affix derives from the Proto-Finnic affix **-ma ~ -mä* (OFUJA: 70; Hakulinen 1979: 116, 118).

[102] See chapter 3.3 *Vowel alternations in the inflectional stem*.

One should note the comparative and superlative forms of the adjective *hyvä* 'good' – *parembi – paras* / *paraš* and the quantifier adverbs *äijä* / *äijy* / *äij* / *äije* 'a lot' – *enämbi* / *enämb* / *enämpi* / *enin* / *enim*, as they have been formed suppletively, i.e. from different stems. These forms together with the superlative forms are widely used in all Karelian dialects, which explains their lexical prevalence.

All normative grammars of Karelian examined in this study detail the formation of the comparative with the suffix *-mbi ~ -mpi* (*-mba- ~ -mbä-*, *-mpa- ~ -mpä-*, *-mma- ~ -mmä-*). They differ in terms of the formation of the superlative and on its use. Ahtia opts for the Livvi-Karelian dialect variant (*-in*: *-ima- ~ -imä-*); Bubrih suggests that both Karelian Proper as well as Livvi-Karelian variants be accepted (*-in*: *-imba- ~ -imbä-*: *-imma- ~ -immä-* / *-ima- ~ -imä-*), and Anisimov only accepts the nominative singular form with the suffix *-in* (analytical structures are used with oblique cases). Ahtia's and Bubrih's grammars accept the formation of comparatives directly from the stems *hyvä-*, *äijä-*.

The formation of comparatives in the contemporary standard varieties of Karelian does not differ from the dialects on which they are based. In standard Livvi Karelian adjectives whose stem ends with a diphthong or with *o*, *ö*, *u*, *ü* use the affix *-vin* (*-vima- ~ -vimä-*) in the superlative. It is important to note that the suffixally-formed superlative is confirmed here as a parallel form of the analytical superlative, although the former has in practise fallen out of use in spoken dialects.

An adjective in the comparative form expresses that a quality of an object is of a higher degree than that of the object against which it is being compared (VISK § 633). The target object of the comparison is expressed via the partitive form or conjunctions, e.g. *Volga on pitembi Nevua*. 'The Volga is longer than the Neva.' (Anis), *Raudu on kovembi kivie*. 'Iron is harder than stone.' (Mark), *Ulli on vanhempi Huotie*. 'Ulli is older than Huoti.' (ZaiK). The superlative expresses that the degree of the quality in question is greater than that of any other member of the comparison group (VISK § 642), which is expressed via the elative plural, e.g. *Everest on korgein muailman mägilöis*. 'Mount Everest is the highest mountain in the world.' (Anis), *Luatokka on kaikista Karjalan järvilöistä suurin*. 'Ladoga is the largest lake in Karelia.' (ZaiK). (See Anisimov 1939: 78–79; Palmeos 1962: 42–43; Rjagoev 1977: 96–97; Barantsev 1985: 125; Rjagoev 1987: 241–245; Zaikov 1999: 49–51; Markianova 2002: 66–68; Zaikov 2002: 94–96; Pyöli 2011: 53–56; Zaikov 2013: 114–116.)

7.6 Numeral

Numerals are a word class that contains the names of numbers or words expressing the number of concrete referents or phenomena, and words that are used in counting to express the order of referents or phenomena (Zaikov 1999: 51). As with most languages in the world, the number system in Karelian is based on the decimal system. Numerals are formed by repeating the parts of basic numbers according to a certain formula. Numerals are structurally divided into cardinal numerals that are expressed with a single non-compound word, compound numerals that are formed of two or three non-compound words, and complex numerals that are formed from two or more individual cardinal or compound numerals.

Based on their meaning, numerals are usually divided into cardinal numerals, ordinal numerals, fractions, and quantifier pronouns expressing an unspecific number (*äijä* / *äijy* / *äij* / *äije* 'several' *moni* 'several').

In Finnic linguistics, there are two ways of viewing ordinal numerals that express the order of the referents that are being counted. In *Iso suomen kielioppi*, the most comprehensive reference grammar of Finnish, the formation of ordinal numerals is part of word derivation, as their affix is located between the word stem and the grammatical affix and the adding of the affix brings about a change in meaning, and also relocates the word into the adjective class

(VISK § 438). In most grammars of Karelian, however, ordinal numerals are detailed in chapters on the nominal declension system, as is the case of the comparative grade category of adjectives.

Numerals express the number of certain referents (Table 43). In Karelian, cardinal numerals contain no derivational affixes. There are no significant differences in them between dialects. The existing differences have to do with phonetic peculiarities of individual dialects and subdialects. Compound numerals from eleven to twenty are formed with the words *toista* / *tostu* / *toštu* / *tošt* / *toš*, which is the partitive singular of *toine* / *toini* 'another' with the meaning 'of the second ten'. Decimal numerals are expressed by combining a cardinal numeral with the word *kymmen*(*e*) / *kymmendä* / *kymmendy* / *kymmentä* 'ten' (*kolmekymmendä* / *kolmekymmen* / *kolmekymen* / *kolmekyme* 'thirty'). (See also Rjagoev 1987: 247–253.) Numerals used to express hundreds, thousands, etc. are formed in the same way. All other complex numerals are formed by combining two or more cardinal numerals or compound numerals (*kolmekymmendä kolme* / *kolmekymmen kolme* / *kolmekymen kolme* / *kolmekyme kolme* 'thirty three').

Numerals have the same inflectional types as other nominals. Like all nominals, numerals are inflected in case and number. Each part of compound and complex numerals is inflected, except for *toista* / *tostu* / *toštu* / *tošt* / *toš*. Numerals differ from nominals only in their lack of an accusative singular form (except for the cardinal numeral *yksi*); the object is only expressed with the nominative and partitive forms. Some numeral-stem cases that have fixed into adverbs are used to express e.g. the number of actions and events (*kahičči* / *kahiči* 'twice'). Numerals occur in the plural when their head nominals only have a plural form (*kahet keriččemet* / *kahdet keriččemet* 'two pairs of shears').

Syntactically, numerals occur as attributes. In oblique cases they are in agreement with the head noun in case and number. A singular partitive noun is combined with a cardinal numeral in the nominative (except for *yksi* 'one'). It is also possible that the numeral follows the noun, which renders the number an approximation.

Ordinal numerals in Karelian are formed from cardinal numerals (starting with "three") in the nominative singular with the following affixes: *-š* (Karelian Proper dialects in the Russian Karelia and South Ludic subdialects), *-s* (Livvi-Karelian and South Karelian dialects), *-z* (Central Ludic and Mikhailovskoye subdialects), *-ž* (Central Ludic subdialects), and *-nž* (Northern Ludic subdialects). In the oblique cases the suffix is *-nde-* / *-nte-* (in Karelian Proper dialects the suffix is subject to consonant gradation; the weak grade of the suffix is *-nne-*), *-t* (partitive singular forms), and *-nzi-* / *-nsi-*/ *-nži* in the plural forms[103] (see Programmy: 85). The adding of the suffix causes regular consonant gradation in the stem of the numeral. The ordinal numerals "the first" and "the second" are formed suppletively from a different stem than their corresponding cardinal numerals (*enžimäne* / *enžimmäini* / *enžimäni* / *enzimäne* / *enzimäni* / *enzimäine* / *ezmäine* / *enšimmäni* / *enšimmäini* / *endžimäne* / *endžimaine*, *toine* / *toini*).

Fractions, which express part of a whole, are used rather rarely in colloquial Karelian. They are formed with the affixes *-nnuš* ~ *-nnyš*, *-nneš* / *-nnez*, *-ndes* / *-ndeš* (*kolmannuš* / *kolmanneš* / *kolmandes* / *kolmannez* / *kolmandeš* 'a third'). A half is expressed with the word *puoli* (*puolitoista* / *puolitostu* / *puolitoš* 'one and a half', *kakši* / *kaks puolenke*, *kakši da puol* 'two and a half'). (Genetz 1880: 202; Rjagoev 1977: 100–101; Barantsev 1985: 131–132; Rjagoev 1987: 254.)

It is important to note that cardinal numerals are most often used in colloquial speech, which has a positive influence on their retention. In Karelian dialects spoken in Russia, large

[103] The suffix derives from the Finno-Ugric suffix *-*nti* (Hakulinen 1979: 140).

complex numerals and compound numerals are expressed with numerals borrowed from Russian rather than with native words. This is explained by the fact that they are most often used in an official context, the language of which Russian has been for a long time.

Normative grammars of Karelian (Table 44) contain the formational and inflectional rules for cardinal numerals, compound numerals, complex numerals, ordinal numerals, and fractions. As a whole, it matches the occurrence of numerals in the dialects of Karelian.

7.7 Pronoun

Pronouns are a class of words whose function is to indicate referents without classifying them lexically. They express, among other things, whether the referent of the noun attributed by a pronoun is recognisable or not and in which way. Some pronouns indicate whether the referent is a person or something else. (See VISK § 713.) Pronouns are used to substitute nouns, adjectives, numerals, and even adverbs, to express time, quality, reason, goal, and location. Correspondingly, they may have different syntactic roles: that of the subject, attribute, object, or adverbial.

Pronouns in contemporary Finno-Ugric languages are usually divided into two groups: primary pronouns that were formed in Proto-Finno-Ugric (person, demonstrative, and interrogative pronouns), and secondary pronouns that have formed only after the proto-language split into several languages (see Maytinskaya 1979: 187.) The most important evolutionary processes of secondary pronouns in Finnic languages include the formation from existing word classes, shifting from one word class into another, and borrowing.

Like all nominals, pronouns are inflected in case and number. Individual pronoun groups have the categories of person and even being animate or inanimate. In Karelian, pronouns have certain morphological markers. They have some features characteristic only to pronouns, e.g. certain pronoun groups lack oblique case forms. Pronouns have distinct stems in the singular and plural. (Zaikov 1999: 57; Giloeva 2004: 6.)

One feature shared by all pronouns is their genericity. They lack a descriptive and classifying relationship to the referent (cf. VISK § 713). Based on their meaning, pronouns in Karelian are divided into the following logical-semantic groups: personal pronouns, demonstrative pronouns, interrogative pronouns, relative pronouns, indefinite pronouns, definite pronouns, negative polarity quantifier pronouns, reflexive pronouns, and reciprocal pronouns, although some grammars also distinguish possessive pronouns and emphatic pronouns (see Giloeva 2004; Rjagoev 1977: 102–110; Zaikov 1999: 57; VISK § 713). Pronouns are presented in Tables 45 and 46.

7.7.1 Personal pronouns

Personal pronouns in Karelian have personal, number, and case forms. Personal pronouns refer to the parties of a speech situation (1st and 2nd person) and to a party that is the topic of conversation (3rd person) (VISK § 716). Nominative personal pronouns in Karelian dialects are the following (Table 45):

– 1sg 'I': *mie* (Karelian Proper) / *miä* (Dyorzha, Padany) with the stem *miu-*, *minä* (Livvi-Karelian, Ludic) / *mina* (Central Ludic) / *mia* (Mikhailovskoye) with the stem *minu-*;

– 2sg 'you': *sie* / *šie* (Karelian Proper) / *šiä* (Dyorzha) / *siä* (Padany) with the stem *siu-* / *šiu-*, *sinä* (Livvi-Karelian, Ludic) / *šina* (Central Ludic) / *sia* (Mikhailovskoye) with the stem *sinu-*;

– 3sg 'he/she': *hiän* / *heän* (Karelian Proper) / *heen* (Padany) / *höän* (Valday) / *hin* (Dyorzha) / *hän* (Rugozero, Padany, Myandusel'ga) / *häin* (Myandusel'ga, Porozero, Suoyarvi, Korpisel'kya, Suystamo), *häi* / *häin* (Livvi-Karelian), *häin* (South Ludic, Mikhailovskoye) / *hän* (North Ludic, Central Ludic, South Ludic) / *häi* (South Ludic) with the stems *häne-*, *hän-*;

– plural: *myö* 'we', *työ* 'you', *hyö* 'they' with the stems *mei-*, *tei-*, *hei-* (Karelian Proper: *Ciä-* / *Ceä-*).[104]

Pronominal cases are formed like other nominal case forms, i.e. by adding suffixes to stems. Some details are to be observed in the formation of certain individual cases.

The formation of 1sg and 2sg partitives differs in most Karelian Proper dialects due to the stems *mil-*, *sil-* / *šil-*. They have formed as the *u* in the stem has turned into *l* (*mil-ma* (Karelian Proper) / *miu-da* (Rugozero, Padany, Myandusel'ga, Porozero) / *miu-ma* (Tolmachi, Ves'yegonsk) / *minu-u* (Livvi-Karelian) / *min-dai* / *min-da* / *minu-d* (Ludic).

In Karelian Proper, the plural pronouns *myö*, *työ*, *hyö* have the genitive stems *miä-* / *meä-*, *tiä-* / *teä-*, *hiä-* / *heä-* (*miä-n* / *meä-n* [Karelian Proper] / *me-jän* [Kestenga, Vychetaybola] / *mei-jen* [Padany, Porozero, Myandusel'ga] / *me-jän* / *mei-jän* [Livvi-Karelian] / *mei-den* / *mei-dän* [Ludic]).

Furthermore, unlike other nominals, Karelian pronouns have a particular accusative form with the affix *-t* (*häne-t*, *hiä-t* / *heä-t* / *hejä-t* / *heijä-t*). (See Genetz 1870: 223; Genetz 1872: 20–21; Genetz 1880: 202; Genetz 1884: 157; Anisimov 1948: 98–99; Beljakov 1948: 54; Palmeos 1962: 45–46; Manžin 1964: 47; Rjagoev 1977: 103; Barantsev 1985: 133; Virtaranta 1986: 75; Rjagoev 1987: 264–266; Atlas: maps 125–131; Programmy: 121–123.)

Bubrih states that both Karelian Proper and Livvi-Karelian 1sg and 2sg pronouns *mie* / *minä*, *sie* / *sinä* (genitive: *miu-n* / *minu-n*; partitive: *miu-da* / *minu-o*) may be used (Table 46), whereas the basic form of the 3sg pronoun be *hän* (genitive: *häne-n*; partitive: *hän-dä*). Bubrih also suggests two plural personal pronoun genitive variants (*miä-n* / *mei-jen*, *tiä-n* / *tei-jen*, *hiä-n* / *hei-jen*). (Bubrih 1937: 52–53.) Anisimov opts for the Karelian Proper variants of the 1st and 2nd person pronouns and the Livvi-Karelian variants of the 1st and 2nd person pronoun plural genitives: *mie* (partitive: *miu-da*), *sie*, *hän*, *myö* (genitive: *mei-jän*), *työ*, *hyö* (Anisimov 1939: 95). Ahtia's grammar also opts for the Livvi-Karelian personal pronouns and their inflection: *minä*, *sinä*, *häi*, *myö*, *työ*, *hyö* (Ahtia 1938: 62–63).

The personal pronoun systems of the contemporary standard varieties of Karelian differ little from their corresponding systems in the main dialects: *mie* (genitive: *miu-n*, partitive: *mil-ma*), *sie*, *hiän* (genitive: *häne-n*, partitive: *hän-tä*), *myö* (genitive: *mei-jän*, partitive: *mei-tä*), *työ*, *hyö* in standard Viena Karelian, and *minä* (genitive: *minu-n*, partitive: *minu-u*), *sinä*, *häi* (genitive: *häne-n*, partitive: *hän-dy*), *myö* (genitive: *mei-jän*, partitive: *mei-dy*), *työ*, *hyö* in standard Livvi-Karelian (Zaikov 1999: 57–58; Markianova 2002: 87–88; Zaikov 2002: 106; Pyöli 2011: 63–64; Zaikov 2013: 121–123). Standard Viena Karelian has the genitive plural forms *meijän*, *teijän*, *heijän*, even though *miän*, *tiän*, *hiän* occur in most Viena Karelian subdialects, and *mejän*, *tejän*, *hejän* occur only in the Kestenga and Vychetaybola subdialects.

Personal pronouns in Karelian are either deictic or anaphoric. Deictic pronouns refer either to the speaker or to a group of people that includes the speaker (1st person), e.g. *Minä olen karjalaine*. 'I am Karelian.', *Müö ruammo oman ičen hüväkse*. 'We work for our own good.' (Mark), *Mie luven kirjua*. 'I am reading a book.', *Myö opassumma lukomah ta kirjuttamah*. 'We are learning to read and write.' (ZaiK). They can also refer to a person at whom speech is directed, or to a group of people that includes the interlocutor (2nd person), e.g. *Tahtoin lähtie sinunke yhtes.* 'I wanted to go with you.', *Teijät hüö tavatah jo enne ildua*. 'They will meet with you before the evening.' (Mark), *Sie olet jo suuri poika*. 'You are a big boy now.', *Kesällä työ*

[104] Linguists connect the Balto-Finnic pronouns to the Proto-Uralic pronouns **me*, **te*, **se* (Haidu 1985: 255; OFUJA: 73–74).

rupietta kylpömäh järvie. 'In the summer you will swim in the lake.' (ZaiK). Anaphoric personal pronouns refer to people or inanimate referents that do not take part in the conversation but are known to the speakers or have been mentioned earlier (3rd person), e.g. *Häi ainos opastui hüvin*. 'He always studied well', *Heidü ei nägünüh nikus*. 'They could not be seen anywhere.' (Mark), *Hiän läsiyty*. 'He/she fell ill.', *Hyö ruvettih kirjuttamah*. 'They began to write.' (ZaiK).

7.7.2 Reflexive pronoun

The sole reflexive pronoun in the Karelian language is *iče* (*iče-*, *ičče-*) 'self' with a possessive suffix added to it (Genetz 1870: 223; Genetz 1872: 22; Genetz 1880: 204; Genetz 1885: 157–158; Palmeos 1962: 46–47; Manžin 1964: 47; Rjagoev 1977: 104; Barantsev 1985: 132–133; Rjagoev 1987: 266–267). A reflexive pronoun indicates that an action is targeted at the actor itself; the object and the subject of the clause thus share the same referent. In this instance of co-reference, that constituent which does not serve as the subject is the one expressed with a reflexive pronoun (VISK § 729).

The pronoun *iče* has case inflection but lacks a specific plural. In some cases, a possessive suffix can indicate plurality. Syntactically, *iče* may also be used to emphasise another word.

In Anisimov's normative grammar (Table 46), the reflexive pronoun is used without the possessive suffix: *iče* (*ičen*, *ičči*e, *ičči*eh) (Anisimov 1939: 95). Ahtia mentions the possibility to use the pronoun *iče* both with and without a possessive suffix and notes that the pronoun lacks the plural form, but the choice of the possessive suffix indicates plurality (genitive: *iče-n* / *ičče-ni*, genitive plural: *iče-n* / *ičče-mmo*, illative: *ičče-h* / *ičče-he-s*, illative plural: *ičče-h* / *ičče-he-ttö*) (Ahtia 1938: 65).

In standard Viena Karelian the pronoun *iče* with a possessive suffix is used, e.g. *Kysy nyt ičeltäš*. 'Now ask yourself.' (Zaikov 2002: 118). Such use is not explicitly detailed in the grammars of standard Livvi-Karelian, but it is not disallowed, either, e.g. *Häi iče sen maltau ruadua*. 'He/she can do it himself/herself.' (Markianova 2002: 97), *Kenbo ičči*edäh muga kehuu? 'Who would praise himself/herself so?' (Pyöli 2011: 70).

7.7.3 Reciprocal pronoun

The pronoun *toini* / *toine* may occur twice in a clause: first in the nominative, then in one of the oblique cases (partitive singular *toini toista* / *toine tostu* / *toine tošte* 'one another') (Table 45). In this case, the pronoun gains a reflexive-reciprocal nature indicating a plurality of the action's subject. Only the latter part of the pronoun is inflected, whereas the initial component is always in the nominative singular (See Genetz 1885: 159; Palmeos 1962: 47; Rjagoev 1977: 105; Barantsev 1985: 133; Rjagoev 1987: 268.)

Ahtia's grammar allows the use of the reciprocal pronoun *toine toista* / *-h* (*toine toizen* / *-h*, *toine toizes* / *-ssah*) with or without a possessive suffix in the 3rd person (Ahtia 1938: 65–66). Contemporary Karelian grammars also distinguish the reciprocal pronoun *toini toisen* / *toine toizen*, e.g. *Müö suvaičemmo toine tostu*. 'We love each other.' (Markianova 2002: 98), *Emmä voi elyä toini toisetta*. 'We cannot live without each other.' (Zaikov 2002: 118–119).

7.7.4 Possessive pronoun

Possessive pronouns[105] indicate that a referent belongs to someone. Personal pronoun genitives are used to indicate ownership (*miun* / *minun talo* 'my house'). In Karelian dialects, an adjective-derived pronoun *oma* (*oma-*) 'own' may also be used as a possessive pronoun in a reflexive-possessive sense. It is also mentioned in some descriptive grammars of Karelian (Table 45), e.g. *Mie mäniin miehellä omah kyläh*. 'I married a man from my own village.' (Palmeos 1962: 47), *Muamogi kävü mun omaŋke leivänke*. 'My mother also went there with some of her own bread.' (Rjagoev 1977: 104), *Omat tullah minuleni*. 'They are related to me.' (Rjagoev 1978: 267–268).

The possessive pronoun *oma* is typically used in conjunction with personal or interrogative pronouns and with genitive nouns in the Karelian Proper enclave dialects (*miun‿oma* 'my own', *hänen‿oma* 'his/her own', *kenen‿oma* 'whose own', *muamon‿oma* 'mother's own'), e.g. *A i siemenet hiän‿omat*. 'Even the seeds are their own.' (Rjagoev 1977: 104).

Only Anisimov distinguishes the possessive pronoun *oma* (Anisimov 1938: 95), whereas other normative grammars of Karelian classify *oma* as an adjective.

7.7.5 Demonstrative pronouns

The main function of demonstrative pronouns is to distinguish a target referent from others and to indicate its location or distance in relation to the speaker.

Karelian has a personally-oriented deictic system, which contains information on how far the target is located from the speaker or the recipient. Thus, the pronoun *tämä* 'this' (*tämä-* in the nominative and genitive, *tä-* in other oblique cases) indicates in all Karelian dialects a target that is located next to the speaker, or an event that has taken place in the near past. In referring to what has been said earlier, this pronoun is mostly used when it is mentioned for the first time. The pronoun used to indicate a target that is further back in time or space or had been mentioned even earlier is *tuo* (*tuo-*), *toa* / *tua* (*toa-* / *tua-*), *še* / *se* / *že* (*Se-*, *Si-*, *Sii-*), *šeže* / *seze* / *seže* (*SeZe-*) in Karelian Proper, *neče* (*neče-*, *nečči-*, *neči-*), *se* (*se-*, *si-*, *sii-*), *tua* / *tuai* (*tua-*) in Ludic, and *neče* (*neče-*, *nečči-*, *neči-*), *se* (*se-*, *si-*), *tai* / *tua* (*tua-*), *toi* / *tuo* (*tuo-*) in Livvi-Karelian. (See Genetz 1870: 223; Genetz 1872: 21; Genetz 1880: 205; Genetz 1884: 158; Anisimov 1948: 100; Palmeos 1962: 48–50; Manžin 1964: 48; Rjagoev 1977: 105; Barantsev 1985: 134–135; Virtaranta 1986: 76–77; Rjagoev 1987: 268–274; Programmy: 179.) In addition, the demonstrative pronouns *še* / *se* / *že*, *šeže* / *seze* / *seže*, *neče* indicate that the target is close to the interlocutor, whereas the pronouns *toa* / *tua* / *tai* / *tuai*, *toi* / *tuo* indicate that the target is located further away from both the speaker and the interlocutor (see Zaikov 1999: 58). According to research, *se* indicates that the target is further away than *neče*, and *toi* / *tuo* indicates that the target is further away than *toa* / *tua* / *tai*, i.e. they indicate the proximity of their referent in the following order from the closest to the furthest: *tämä* > *neče* > *se* > *tai* / *tua* > *toi* / *tuo* (see Rjagoev 1987: 269). The deictic system of Livvi-Karelian and Ludic, the former in particular, appear to be more developed than that of Karelian Proper both in terms of the member count of the system and the number of possible derivations, e.g. *netai*, *netäi*, *netoi*, *netuo* 'those over there' in Livvi-Karelian dialects.

Like nominals, demonstrative pronouns inflect in case and number (with the exception of rarely used cases). Demonstrative pronoun plural is formed with suppletion from specific

[105] The term is based on the corresponding Russian term.

stems that derive from singular pronouns. In the plural, the initial consonants *t*, *s* of the pronouns have changed into *n*: *nämä* / *nämmä* / *nämät* (*näi-* / *nämi-* / *nämmi-*), *nuo* (*noi-*), *noa* (*noi-*), *nuat* (*nualoi-*), *nua-* (*nuai-*), *nenne* / *nene* (*neni-*), *ne* / *net* (*nii-*).

Individual demonstrative pronoun inflection forms have become proadverbs (pronominal adverbs). They indicate place, time, means, or reason, e.g *tässä* / *täššä* / *täs* 'here', *näin* 'in this way', *tuolloan* / *tuollain* / *tuolloin* / *tuolloi* / *tuollai* 'then'.

In some descriptive grammars of Karelian, demonstrative pronouns also includes lexemes that have formed from demonstrative pronouns and the affixes *moine* / *-muone* / *-moini* / *-muoni*, *-laini* / *-lani* / *-laine* 'kind of' that have been added to them, e.g. *moini* / *muone* / *moine* / *muguoine*, *šemmoni* / *šemmoine* / *semmoine* / *semmoni* / *semmone* / *žemmuone* / *semoine*, *tämänmuoni* / *tämämmoine* / *tämämmoini* / *tämmöine* / *tämmöni* / *tämmöine*, *tuammuone* / *tuommoni* / *tuommoini* / *tuommoine*, *nengoni* / *nengone* / *nengoine*, *šellaini* / *sellani* / *sellaine*, etc. (Palmeos 1962: 49; Rjagoev 1977: 106–107; Barantsev 1985: 134–135; Rjagoev 1987: 272–274; KKVS.) These pronouns are used like adjectives, even though they do not represent a fixed quality but instead refer to a quality that is emergent only in context (VISK § 610). Contemporary Finnic linguistics considers such formations to be pronominal adjectives (proadjectives) (see VISK § 725).

There are significant differences in the demonstrative pronoun systems of the normative Karelian grammars of the 1930s. Bubrih opts for Karelian Proper variants (*tämä*, *nämä*, *se*, *ne*, *tuo*, *nuo*), whereas Anisimov (*tämä*, *tua*, *se*, *net*, *neče*) and Ahtia (*tämä*, *nämä*, *se*, *net*, *neče*, *nenet*, *tai* [*toa*], *netai*, *netäi*, *noat*, *toi* [*tuo*], *netoi*, *nuot*) model them after Livvi-Karelian dialects (Bubrih 1937: 52–53; Ahtia 1938: 67–68; Anisimov 1939: 95). Anisimov's grammar also mentions the demonstrative pronouns *moine*, *jytys*, *verda*.

The presentation of deictic systems in the contemporary standard varieties of Karelian is quite logical, and they are based on their respective dialects: *tämä*, *nämä*, *tuo*, *nuo*, *se*, *ne* in standard Viena Karelian; *tämä*, *nämmä*, *se*, *net*, *neče*, *nenne*, *tai*, *nuot* in standard Livvi-Karelian, which also counts the pronominal adjectives *nengoine*, *moine*, *tämmöine*, *semmoine* as pronouns (Zaikov 1999: 58–59; Zaikov 2002: 110–111; Markianova 2002: 88–90; Pyöli 2011: 64–65; Zaikov 2013: 126–127). The contemporary normative grammars give the following examples on the use of demonstrative pronouns: *Tämä järvi ei ole syvä, onnakko tuo on syvä*. 'This lake is not deep; however, that one is.', *Tämä on miun kirja, a se on siun*. 'This book is mine and that one is yours.' (Zaikov 1999: 58), *Tämä on suarnukniigu, a nämmä ollah kerdomuskniigat*. 'This is a fairy tale book and those are story books.', *Minä panen tukkuh nenne hallot*, *sinä peze net ikkunat*. 'I will stack the firewood, you go wash the windows.', *Tai peldo on jo künnettü, a nuot ollah vie kündämättäh*. 'That field has been ploughed but those have not.', *Semmoine se on*. 'That is what it is like.' (Markianova 2002: 89).

7.7.6 Interrogative pronouns

There is a collection of pronouns in the Karelian language that serve multiple functions simultaneously, such as the pronoun *mi*. They are divided into four groups: interrogative pronouns, relative pronouns, indefinite pronouns, and negative polarity quantifier pronouns. There are no grammatical or semantic differences between these pronouns, but they cannot be combined into a single group due to the differences in their meaning and use. Interrogative pronouns, which originally looked like relative pronouns, have later on been turned with particles into negative polarity, indefinite quantifier pronouns and definite pronouns, but many conjunctions and adverbs are also derived from them (see Giloeva 2004: 20.)

The basic function of interrogative pronouns is to indicate an inanimate referent, person, or their quality in a wh-question.

Interrogative pronouns of Karelian include the pronouns *ken* 'who' (animate referent) and *mi* 'what' (inanimate referent), which are commonplace in Karelian dialects. In distinguishing a referent from its peers, the pronoun *ku* (which has certain case forms in Livvi-Karelian and Ludic) 'what kind', *mityš* / *mytyš* / *mitys* / *miityš* / *miitys* / *myytyš* (Karelian Proper) / *miitus* / *mitus* / *mituz* / *miituz* (Livvi-Karelian) / *mitte* (*mitte-*) (Ludic) 'what kind', *kumpani* / *kumbani* / *kumbane* / *kummane* (Karelian Proper) 'which; which of two or more', *kumpi* / *kumbi* (Karelian Proper) 'which of two', *kudama* (*kudama-*) (South Karelian dialects of Karelian Proper) / *kudai* (Livvi-Karelian, South Ludic) / *kudain* / *kudam* (Ludic) 'that, which'.[106] (See Genetz 1870: 224; Genetz 1872: 21; Genetz 1880: 205–206; Genetz 1884: 159; Anisimov 1948: 101; Palmeos 1962: 50–51; Rjagoev 1977: 107–108; Rjagoev 1987: 274–278.)

Interrogative pronouns have a fixed position at the beginning of a clause (or, with indirect questions, at the beginning of the subordinate clause of a compound clause). They occur independently or are in agreement with their head. Interrogative pronouns have case inflection and may thus express a wide variety of meaning categories (a person, an owner, an object, an instrument, a location, etc.). The pronouns *ken* (*ke-*, *kene-*; the stem *ke-* is always used in the partitive, whereas *kene-* is used in the genitive; both stems can be used in other oblique cases in dialects), *mi*, and *ku* only have singular inflection, with the exception of the nominative plural: *ket*, *mit*, *kut*. Other interrogative pronouns have both singular and plural inflection. Usually, they are in agreement in case and number with their head.

Oblique cases are also formed from the pronouns *mityš* / *mytyš* / *mitys* / *miityš* / *miitys* / *miitus* / *mitus* / *mituz* / *miituz* in Karelian Proper and Livvi-Karelian dialects with adding case endings to the stems *mittyö-* / *myttyö-* / *miittyö-* / *myttye-* / *mittye-* / *mittuo-* / *miittuo-*, *mityt-* / *mytyt-* / *miityt-*. In Ludic, this pronoun takes the form *mitte* (*mitte-*). The pronoun *kumpi* / *kumbi* has the vowel stems *kumma-*, *kumpa-* / *kumba-* in their weak and strong grade forms, respectively. Its inflection is identical to the comparative inflection of an adjective. Stems containing the lexeme of the pronoun *kudama* / *kudai* / *kudain* / *kudam* are *kudama-*, *kudua-* / *kudoa-* / *kudaa-* / *kudi̯a-*. The pronoun *kumpani* / *kumbani* / *kumbane* / *kummane* has the same inflection as all other two-stem nominals ending with *-ni* / *-ne* / *-ine*.

Furthermore, proadverbs are also used in interrogative clauses, including subordinate clauses, to determine various meanings such as means of an action, location, time, reason, etc., for example *konša* / *konža* / *konza* / *konzu* / *konz* / *kooz* 'when', *kunne* / *kunna* / *kuna* 'where to', *kui* / *kuin* 'how', *mintäh* / *mindäh* / *mintäi* / *mindäi* / *mintän* / *mindah* / *mintiäi* 'why', *montako* / *mondago* / *monigo*, *äijäkö* / *äijägo* / *äijygo* / *äijängi* / *äigi* 'how many, how much' etc. The main difference between pronouns and proadverbs in such instances is that adverbs lack an inflectional paradigm.

Proadjectives that are derived from the corresponding interrogative pronouns may also be used as interrogatives, e.g. *mimmoni* / *mimmoini* / *mimmuone* / *mimmoine* 'what kind', *mittyni* / *myttyne* / *mittyne* / *miittuni* / *miittune* / *mittuine* / *miittuine* 'what kind', etc. A special characteristic of proadjectives is that they are used as attributes, which means that they always have a head. In some descriptive grammars these kinds of formations are classified as pronouns.

As a whole, the systems of interrogative pronouns in standard varieties of Karelian (Table 46) are the same, with only some phonetic differences between individual pronouns. Bubrih suggests that in the common Karelian literary language the Karelian Proper South Karelian dialect pronouns *ken*, *mi*, *kumbane*, *kudama*, *mitys* / *mittyne* be used (Bubrih 1937: 52–53).

[106] Interrogative pronouns in Karelian include three common Finno-Ugric interrogative roots: **ke-*, **ku-*, **mi-* (Ojansuu 1922).

Anisimov has retained this system (Anisimov 1939: 96). Ahtia bases his system on Livvi-Karelian and mentions the pronouns *ken*, *mi*, *ku*, *kumbaine*, *kudai*, *kudamaine* (Ahtia 1938: 69–70).

The contemporary standard varieties of Karelian mention the interrogative pronouns *ken* and *mi*. Standard Viena Karelian also includes the pronouns *ku*, *kumpi*, *kumpani* + *minmoini*, *kuinka*, *konsa*, *mintäh*, whereas in standard Livvi-Karelian the pronouns are *kudai* and *mittuine* (Zaikov 1999: 59–60; Zaikov 2002: 110–111; Markianova 2002: 88–90; Pyöli 2011: 64–65; Zaikov 2013: 129–131). Contemporary normative grammars give the following examples on the use of interrogative pronouns: *Ket vielä ei tuldu?* 'Who have not come yet?', *Mis ollou viga?* 'What is the problem?', *Kudai järvi on süvembi?* 'Which lake is deeper?', *Mittumii elättilöi tüö näittö zooparkas?* 'What kind of animals did you see at the zoo?' (Markianova 2002: 91), *Ken sielä kolistau?* 'Who is making that clanking sound over there?', *Mitä sie sanoit?* 'What did you say?', *Kuh taloh mäntih ativot?* 'Into which house did the guests go?', *Kumpani teistä ei varaja nimitä?* 'Which one of you fears nothing?', *Kummalla heposella lähemmä ajamah?* 'Which horse shall we ride?' (Zaikov 2002: 112–113).

7.7.7 Relative pronouns

Relative pronouns in Karelian are the same as interrogative pronouns,[107] but their main function is to connect the subordinate clause of a compound clause into its main clause (Tables 45 and 46). A pronoun refers to a main clause constituent or to the main clause as a whole, e.g. *Sil ristikanzal, ken maltoi keksie tämän, oli varmah hajuu piäs*. 'The person who invented this must have been smart.', *Häi saneli olluon üöksüksis, mi minuu kummatti*. 'He/she said he/she had been lost, which amazed me.', *Tuos on ristikanzu, kudai egläi kävüi meile*. 'That is the person who came over yesterday.' (Markianova 2002: 92), *Tuossa on se poika, kumpani opastuu meijän koulussa*. 'That is the boy who studies at our school.', *Lapsi rikko kaikki, min sai käsih*. 'The child broke everything that it laid its hands on.', *Luokka, kumpasessa mie opassun, on toisessa kerroksessa*. 'The class where I study is on the second floor.' (Zaikov 2002: 111–112). Relative pronouns occur at the beginning of a subordinate clause and are in agreement with its correlate, i.e. with the referent in the main clause to which the pronoun refers.

7.7.8 Negative polarity quantifier pronouns

The group of so-called negative polarity quantifier pronouns, which refer to the lack of a quality of some inanimate referent or person, are also derived from interrogative pronouns. Negative polarity pronouns are usually only used in negative clauses.

Negative polarity pronouns in Karelian are formed with the negative prefex *ni-* / *ne-*, which is a Russian borrowing (*niken* / *neken* 'no one', *nimi* ~ *nemi* 'not anything', *nimytyš* / *nemytyš* 'not any kind', etc.) (see Genetz 1870: 224; Genetz 1880: 206; Genetz 1884: 159; Palmeos 1962: 51; Rjagoev 1977: 109; Barantsev 1985: 135; Rjagoev 1987: 282). The Viena Karelian dialects of Karelian Proper typically use the negative postpositional clitic *-kana* ~ *-känä* (*-na* ~ *-nä*), which is added to an interrogative pronoun (*kenkänä* 'no one', *mikänä* 'not anything', *mimmonikana* 'not any kind'). Only the element that is derived from an interrogative pronoun[108] is inflected; the clitics *ni-* / *ne-*, *-kana* ~ *-känä* are not.

[107] See chapter 7.7.6 Interrogative pronouns.
[108] See chapter 7.7.6 Interrogative pronouns.

Regarding negative polarity quantifier pronouns, the earliest normative grammars codify the use of *ni-*: (*ei*) *ni ken*, (*ei*) *ni kudai*, (*ei*) *ni mi* (Ahtia 1938: 71); *niken*, *nimi*, *nimitys*, *nimittyine*, *nikudama* (Anisimov 1939: 96). As shown by examples and Karelian language samples, the orthography of the prefixes *ni-* / *ne-*, i.e. whether they ought to be joined to the pronoun, written separately, or joined with a hyphen, had not been standardised. In contemporary grammars, prefixes and clitics are written as part of the word, with no hyphens: *niken*, *nimi*, *nikudai*, *nimittuine* according to standard Livvi-Karelian; *niken* / *kenkänä*, *nimi* / *mikänä*, *nimimmoni* / *mimmonikana* according to standard Viena Karelian (Zaikov 1999: 62; Zaikov 2002: 116–117; Markianova 2002: 93–94; Pyöli 2011: 68–69; Zaikov 2013: 135–137). The following examples are given on the use of negative polarity pronouns: *Pihal ei nägünüh nikedä*. 'No one could be seen on the yard.', *Tüttäres ei olluh nimittumua viestii*. 'There was no word from the daughter.', *Niket ei tuldu abuh*. 'No one came to help.' (Markianova 2002: 93–94), *Niken* / *kenkänä ei tullun*. 'No one came.', *Tämä ei sovi nimiksi* / *miksikänä*. 'This cannot be used for anything.' (Zaikov 2002: 116–117).

7.7.9 Indefinite quantifier pronouns

There is no shared view on indefinite quantifier pronouns in the grammars of Karelian. In some grammars they include both pronouns with an unidentified referent and pronouns whose concrete meaning is 'everyone', 'all', 'whoever' (GenS, GenL, GenV, GenA, Aht, Palm, Bar). In others, these pronouns are divided into two groups based on their meaning (Anis, Rjag, Mark, Zaik, Pyöl, ZaiV).

In her study on the pronoun system of Karelian, Giloeva concludes that a distinction between indefinite and definite pronouns ought to be made: "All indefinite pronouns refer to inanimate referents, people, locations, and time that do not have the sense of concrete, personal quantity to the speaker. A distinct feature of definite pronouns is that they refer to a single inanimate referent (or name it) that the speaker connects to other referents based on qualities that are typical of this category." (Giloeva 2004: 66.) Thus, the topic of this chapter are indefinite quantifier pronouns, which indicate that the referent (or its quality) is unidentified, i.e. 'one of several possible ones, not a particular one'. However, due to their structure, quantifier pronouns can express some information about the referent, such as its number or animacy.

The most widely spread type of quantifier pronouns in Karelian (see Table 45) are pronouns that have been derived from interrogative pronouns by adding suffixes and prefixes to their case forms. Word-final clitics are *-gi* (Livvi-Karelian, Ludic, South Karelian dialects of Karelian Proper) / *-ki* (Viena Karelian dialects of Karelian Proper) 'whichever, whatever' and *-go* (Livvi-Karelian), which derive from the verb forms *-tahto* / *-taho* / *-tah* (Livvi-Karelian, Ludic), *-kačo* / *-kačot* / *-kajo* (Karelian Proper, Livvi-Karelian), *-puuttuu* (Livvi-Karelian), *-lien*(*n*)*öy* / *-liene* / *-lienou* / *-liw* (all dialects), *-ollou* (Livvi-Karelian, Tver dialects of Karelian Proper), *-olgah* (Livvi-Karelian, Tver Karelian dialects) with the meaning 'whichever, whatever' and the Russian borrowing *-to* (Livvi-Karelian, Tver Karelian dialects), *-l'uubo* (Tver Karelian dialects) 'whatever, in whichever way', *-nibut'* / *-nibuit'* / -(*ni*) *buiten* / *-nebut'* (Karelian Proper enclave dialects, Livvi-Karelian, Ludic), *-ni* / *-nih* (Karelian Proper), *-ni* (Ludic) 'whatever, whichever'. Prefixes include *kuta-* / *kuda-* (Karelian Proper, Livvi-Karelian), which derive from the partitive form of the interrogative pronoun *ku*, and *kojo-* (Ludic), which has been borrowed from Russian with the sense of 'a certain one'. These are used to form quantifier pronouns of indifference. (Giloeva 2004: 66–99; see also Genetz 1870: 224; Genetz 1872: 22; Genetz 1880: 206; Genetz 1884: 159; Palmeos 1962: 52–53; Manžin 1964: 47; Rjagoev 1977:

109; Barantsev 1985: 135–136; Rjagoev 1987: 281; VISK § 759.) Interrogative pronouns can occur in a sentence as quantifier pronouns even without prefixes or suffixes (see Giloeva 2004: 107–114).

Quantifier pronouns are inflected identically to interrogative pronouns; the clitics, however, are not inflected.[109]

Quantifier pronouns in Karelian also include a group of pronouns that are derived from the corresponding adjectives and numerals: pronouns of number *moni* (*mone-*, *mon-*) (all dialects) 'many, several', *muuven* (*muuvenne-*, *muuven-*) / *muutama* / *muutoma* (*muutama-* / *muutoma-*) (Karelian Proper) 'a few, a couple, a certain one', *muuduaš* (*muduanne-*, *muduaš-*) / *mudi̯aš* (Tver Karelian dialects of Karelian Proper) / *mudoaš* (Valday) 'some, a certain one; few, a couple', *monieš* / *monies* / *moniaš* (*monieha-*, *monie-*, *monieš-*) (Karelian Proper) 'a few, a couple, someone, a certain one'; indefinite quantifier pronouns *eräs* / *eräš* / *eräz* (*erähä-*, *eräS-*) (all dialects) 'a certain one; a few, a couple; someone or something (else), another one', *yksi* (*yhe-* / *yhte-*, *yh-*) 'one, single'. They are most often used when the referent is known to the speaker but for some reason they cannot name it. (See Giloeva 2004: 99–104; Genetz 1870: 224; Genetz 1872: 22; Genetz 1880: 206; Genetz 1884: 159; Palmeos 1962: 52; Manžin 1964: 47.) These pronouns have two stems for the most part (with the exception of *muutama* / *muutoma*), and they are inflected like other corresponding nominals.

Bubrih's normative grammar of Karelian (see Table 46) lists pronouns independently, as "words used to replace some other word are divided into different word classes". Anisimov's grammar connects interrogative pronouns to which the prefixes or clitics *kuda-*, *-ollou*, *-olgah*, *-lienöy*, *-libo*, *-tahto*, and the pronoun *eräs* are added to the group of quantifier pronouns (Anisimov 1939: 95–96). Its base is therefore Livvi-Karelian rather than Karelian Proper. Ahtia's grammar is also based in this respect on Karelian Proper dialects. Of the previously mentioned pronouns with an indefinite meaning, it mentions interrogative pronouns with the clitics *-gi*, *-tahto*, *-kačot*, *-liene*, *-ollov*, *-puuttuv* and the "adjectives" *eräs*, *yksi*, *moni*, *monieš* (Ahtia 1938: 70–71).

Contemporary grammars of Karelian distinguish indefinite and definite (universal) quantifier pronouns (Karelian Proper: *indefiniittipronominit* and *definiittipronominit*; Livvi-Karelian: *indefiniittupronominat* [*ebämiärüpronominat*] and *definiittupronominat* [*miärü-pronominat*]). Indefinite quantifier pronouns in standard Viena Karelian include the interrogative pronouns *ken*, *mi*, to which the clitic *-nih* and *-lienöy* (*kennih*, *minih*, *ken lienöy*, *mi lienöy*) are added, whereas the pronouns *eräs*, *moni*, *monies* are classified as definite pronouns (Zaikov 2002: 113–114; Zaikov 2013: 131–133). In standard Livvi-Karelian this class contains interrogative pronouns, to which the clitics *-gi*, *-tah* / *-tahto*, *-lienne* and the prefix *kuda-* are added, and the pronoun *eräs* (Markianova 2002: 94–95; Pyöli 2011: 67–68). Normative grammars of Karelian give the following examples on the use of indefinite quantifier pronouns: *Kenentah talois toinah vie ei muata.* 'People might still be awake in some house.', *Häi keksii mittumanlienne uvven vehkehen*. 'He will invent some kind of a new contraption.', *Erähät on jo mendü iäre*. 'Some have already left.' (Markianova 2002: 95), *Onko kellänih matassa veičči*? 'Does anyone have a knife with them?', *Hiän missä lienöy opastuu*. 'He/she studies somewhere.' (Zaikov 2002: 114).

With respect to indefinite quantifier pronouns of indifference and quantity one should note the orthography of clitics. There are three ways of writing these quantifier pronouns with clitics in Karelian language samples: with a hyphen, separately, or as a single word. Anisimov's early grammar uses a hyphen, whereas Ahtia joins the clitic to the pronoun. In contemporary grammars, prefixes and clitics are joined to the pronoun without a hyphen. The only exception is the particle *lienöy* in standard Viena Karelian, which is written separately.

[109] See chapter 7.7.6 *Interrogative pronouns*.

7.7.10 Universal quantifier pronouns and quantifier pronouns of indifference

According to Giloeva, definite pronouns, or universal quantifier pronouns and quantifier pronouns of indifference, are "the most varied group of pronouns in terms of composition and meaning" in Karelian (Giloeva 2004: 143).

The name of the group reflects the main function of these pronouns, which is to distinguish a certain number of referents in a multitude, or all of them. A sense of definity is conveyed with pronouns that are derived from interrogative pronouns and also pronominal words that are derived from nominals of other classes.

Quantifier pronouns in Karelian include (Table 45):

1) pronouns of indifference with a meaning of relativity, formed from interrogative pronouns with particles borrowed from Russian, such as *hot* / *hod* / *hos* / *hoz* (all dialects) 'though, even' and *-l'uubo* (Tver Karelian dialects) 'whichever, in whichever way', with a verb-derived modal suffix particle *-tahto* (Livvi-Karelian, Ludic) 'whatever, whichever, whoever', or with the modal particle *vaikka* (Karelian Proper) 'though, even';

2) universal pronouns which indicate a referent totally *joka* / *joga* / *d'oga* / *jogo* (all dialects) 'each, every', *jokahini* / *jogahine* / *d'ogahine* / *jogohine* (all dialects) 'each, every', *kaikki* / *kai* (*kaikke-*) (all dialects) 'every, the whole', *koko* / *kogo* (Karelian Proper, Livvi-Karelian) 'the whole', *molommat* / *molomma* / *molemmat* (Karelian Proper) / *mollembat* (Livvi-Karelian) / *molemba* / *molembad* (Ludic), *molommin* / *molemmin* / *molen* / *mollen* (Karelian Proper) / *mollei* (Livvi-Karelian, Ludic) / *mollembin* (Ludic) 'both (together), each one', *moletit* ~ *molletit* / *mollotid* (*molettiloi-* / *mollettiloi-* / *mollottiloi-*) (Livvi-Karelian, Ludic, Suoyarvi) 'both', *kumpiki* / *kumbiki* (Karelian Proper) 'both' and pronouns formed from interrogative pronouns with the clitic *-ki* / *-gi* (all dialects) 'both';

3) pronouns that indicate reciprocity of inanimate referents, persons, and phenomena, such as *toine* / *toini* (all dialects) 'another', *muu* (all dialects) 'other one';

4) pronouns that indicate similarity, such as *sama* / *šama*, *samani* / *šamani* / *šamane* / *samaine* (all dialects) 'the same, similar' and the pronoun *yksi*, which sometimes occurs in the sense of 'similar'. (Giloeva 2004: 117–136; see also Genetz 1870: 224; Genetz 1872: 22; Genetz 1880: 206; Genetz 1884: 159; Palmeos 1962: 52; Manžin 1964: 47; Rjagoev 1977: 108; Rjagoev 1987: 278–279.)

The pronouns *joka* / *joga* / *d'oga*, *koko* / *kogo*, *mollei* / *mollen* are not inflected, while the others are inflected in case and number identically to other nominals of the same inflection type.

Standard varieties of Karelian include the following pronouns that belong to the group of universal quantifier pronouns and quantifier pronouns of indifference: interrogative pronouns to which the prefixes *hos-* and *toko-* are added, the pronouns *joga*, *jogahine* and the "adjectives" *kai*, *muu*, *samaine*, *toine*, *kogo*, *mollen* / *mollembat* in Ahtia's grammar (Ahtia 1938: 70–71); the "definite" pronouns *kai*, *kaikin*, *kaiken moine*, *kaiken jytys*, *jogahine*, *joga*, *muu* in Anisimov's grammar (Anisimov 1939: 96); *joka*, *jokahini*, *iče*, *kaikki*, *molommat* and also the pronouns *toini*, *muu*, *eräs*, *moni*, *monies* in standard Viena Karelian (Zaikov 2002: 115–116; Zaikov 2013: 134–135); and *kai*, *joga*, *jogahine*, *toine*, *mollei, mollembat* in normative grammars of Livvi-Karelian (Markianova 2002: 96; Pyöli 2011: 69). The following examples are given on the use of generic-definite pronouns, or universal quantifier pronouns: *Kaikin oli jo ammui lähtiettü iäre*. 'Everyone had left a long time ago.', *Iogahine tiedäü sen*. 'Everybody knows that.', *Toine oli karjalaine*. 'The other one was Karelian.', *Mollei maltettih paista karjalakse*. 'Both of them could speak Karelian.' (Markianova 2002: 96), *Kylässä joka talossa on siivattua*. 'There is livestock in

every house of the village.', *Kaikki miehet ollah nuotalla*. 'All men had gone seine-fishing.', *Molommat lapset vielä muattih*. 'Both children were still sleeping.', *Sano mitänih muuta hyvyä*. 'Say something else that is good.' (Zaikov 2002: 116).

8 Verb conjugation

Verbs convey action and changes (e.g. *syvvä* 'to eat'), states (*omistoa* 'to own'), states of mind and their changes (*suvaijakseh* 'to fall in love'), and modality (*voija* 'can'). (VISK § 445). Syntactically, a verb usually functions as the predicate (LÈS).

Like in other Finnic languages, verbs in Karelian have two voices expressing the relationship between an action and its subject and object. Grammars usually distinguish two main voices: the active and the passive voice (personal and impersonal). Morphologically, the active voice form is the original one, conveying that an action has an actor. Its opposite is the morphologically derived passive. It expresses an action whose actor is unknown (indefinite-personal meaning) or generic. A verb in the passive voice conveys a situation without expressing the actor, or any other subject, or it expresses that the actor is not important. (VISK § 1313.) As the passive voice is used in Karelian to form the 3pl verb forms, contemporary normative grammars of Karelian do not distinguish the category of voice.

A feature of Livvi-Karelian and Ludic that sets them apart from Karelian Proper is that in addition to their principal conjugation, they also have reflexive conjugation that expresses an action that is targeted at the actor itself. Reflexive verbs have their own conjugation paradigms.

Like in other Finnic languages, verb conjugation in Karelian distinguishes personal (finite) verb forms and nominal (non-finite) verb forms. Personal verb forms most often convey action concretely. Their characteristic grammatical categories are the person, number, tense, and mood. Verb conjugation also includes the formation of negations with the connegative verb *ei*. As the most common meaning of a word form in Karelian is the totality of meanings comprising several components, inflectional paradigms include both synthetic and analytical forms (Adel' 1995: 4), such as compound tense forms. As nominal forms (infinitives and participles) are inflected in number and case, they share grammatical features of both verbs and nominals.

The basic form of a verb is the 1st infinitive (inf1). All verbs are formed from the lexical stem of the lexeme by adding various inflectional affixes to it. Only some grammatical categories of a verb have their own affixes in Karelian.

grammatical category	marked	unmarked
person and number	1sg, 2sg, 1pl, 2pl pres. ind. 3sg pot. 3sg	imperf. ind. 3sg con. 3sg
tense	imperf.	pres.
mood	con., pot., imp. 1pl, imp. 2pl, imp. 3sg, imp. 3pl	ind. imp. 2sg
voice	pas.	act.

A verb form may comprise various components: 1) the stem only; 2) two components, e.g. verb stem + personal suffix; 3) several components, e.g. verb stem + passive affix + mood affix + personal suffix. In verb forms that conjugate, closest to the stem is the passive affix, which is used in the 3pl. The passive affix is followed by the tense or mood suffix, followed by a personal suffix (*hyö tul-d**i**-h* 'they came', in which *tul-* is the consonant stem of *tulla* / *tulda* 'to come', *-da*

is the passive affix, *-i* is the imperfect affix, and *-h* is the 3pl suffix). A single verb form cannot simultaneously contain both tense and mood affixes. With unconjugated verb forms the stem is followed by an infinitive and participle affix, then a number affix, a case ending and a possessive suffix (*otta-jo-i-lla-ni*, in which *otta-* is the strong vowel stem of *ottua* / *ottoa* / *ottja* / *ottaa* / *ottada* 'to take', *-ja* the active 1st participle affix, *-i-* the plural affix, *-lla* the adessive suffix, and *-ni* the 1sg possessive suffix).

8.1 Verb stem types

In the Karelian language, verb stems, like nominal stems, are divided into lexical stems and inflectional stems, which include the affixes of tense, mood, or passive.

Descriptive grammars (see Table 47) show that the classification of verb forms is important. Like nominals, verbs stems may be classified using various principles. Genetz's classifications are based on the characteristics of the final vowel of the stem (see Genetz 1870: 235–239). In his later descriptions, Genetz distinguishes the stems of contraction verbs ending with a diphthong (*supistuneet* in Genetz's terminology), shortened stems (*typistyväiset*), some forms of which lack a final vowel, and stems ending with a short vowel (*supistumattomat*), which are unaffected by such processes (see Genetz 1880: 222–224; Genetz 1885: 169–170). In Beljakov's grammar, the classification of conjugation types is based primarily on syllable count (see Beljakov 1948: 78–111), whereas Anisimov bases it on the final vowel of the stem (see Anisimov 1948: 119–162). Genetz's, Anisimov's, and Beljakov's classifications ignore the dichotomy of vowel and consonant stems, thereby making it possible to combine some classes of single- and two-stem verbs into a single type. In his work *Očerki po livvikovskomu dialektu karel'skogo jazyka* [Studies on the Livvi-Karelian dialect of the Karelian language], Rjagoev views the verb "in terms of morphological structure": consonant gradation, verb stem classes, sound changes taking place on morpheme boundaries, and grammatical affix variants (Rjagoev 1987: 183–184). The most detailed classification of verb stems is that of Barantsev, who consider the number of verb stems, the syllable count, and features of the final vowels and consonants in the stem (see Barantsev 1985: 137–142).

In Karelian, verb stems are classified by the number of stems a verb can have, which is either one or two. This is typical of Finnic languages. The syllable count of the stem and its final sound also affect classification. Moreover, a stem may be either strong or weak in its grade, and there may be stem-final vowel alternations in some verb forms. Thus, the following verb forms are given in the presentation of basic stem types in Karelian dialects: pres. ind. 1sg, featuring the weak vowel stem of single-stem verbs; imperf. ind. 3sg, featuring a strong stem and which shows any final consonant changes; imperf. ind. 3pl, which is formed from a particular plural stem (the passive stem); and imp. 3sg, which contains the consonant stem of two-stem verbs.

Examples in Table 47 show that there is a general system of verb stems in the Karelian language in which all verbs are divided into either one- or two-stem verbs. With single-stem verbs, a grammatical affix is added to the only possible vowel stem (*sano-n* / *šano-n*, *sano-kkah* / *šano-kkah* / *sano-gah* / *sano-gai* 'let him/her say') or to one of the possible vowel stem variants (*haravoiče-n* 'I rake', *haravoi-gah* / *haravoi-kah* 'let him/her rake'). Certain forms of two-stem verbs have a consonant stem, i.e. a stem ending with a consonant, whereas other forms are formed by adding suffixes to the vowel stem (*tule-n* 'I come', *tul-gah* / *tul-kah* / *tul-gai* 'let him/her come'). A vowel stem is used in most indicative and conditional forms and in the 3rd infinitive, for example. A consonant stem is used e.g. in the 1st infinitive, the 2nd participle, the imperative (excluding 2sg forms), and the potential.

The 1st infinitive forms of single-stem verbs end in Karelian Proper and Livvi-Karelian with the suffixes *VV*, *-ha* ~ *-hä*, *-va* ~ *-vä*, *-ja* ~ *-jä* and in Ludic with *-da* ~ *-dä*, *-ta* ~ *-tä*, *-i*.

Two-stem verbs end in Karelian Proper and Livvi-Karelian with *-la* ~ *-lä*, *-ra* ~ *-rä*, *-na* ~ *-nä*, *-ta* ~ *-tä*, and in Karelian Proper also with *-ha* ~ *-hä*, *-ša* ~ *-šä*, *-sa* ~ *-sä*. Ludic has the suffixes *-da* ~ *-dä*, *-ta* ~ *-tä*. The basic verb form in Karelian Proper and Livvi-Karelian shows whether the verb has one or two stems, whereas in Ludic these forms are identical.

All Karelian main dialects have consonant stems ending with *l*, *n*, *r*, *s*, *h* (< **k*), *t* and stems ending with a diphthong. Vowel stems end with the short vowels *a*, *ä*, *o*, *u*, *y*, *i*, *e* or diphthongs. If the vowel stem ends with a labial vowel or the vowels *a*, *ä*, *i*, the verb has a single stem and it does not have a consonant stem (e.g. *kaččo-* / *kačo-* from *kaččuo* / *kaččoda* 'to watch; to look', *kučču-* / *kuču-* from *kučču* / *kučču* / *kučču* 'to call, to beckon', *otta-* / *ota-* from *ottua* / *ottoa* / *ottaa* / *ottada* 'to take', *läsi-* / *läzi-* / *läži-* from *läzie* / *läsie* / *läžie* / *läziä* 'to be ill'), with the exception of two-stem verbs in Karelian Proper that have a vowel stem ending with *-ja* ~ *-jä* (*varaja-* from *varata* 'to be afraid'), and Ludic contraction verbs, which have a vowel stem ending with *a-*, *ä* (*rubeda-* from *rubeta* 'to begin to do smth'). Single-stem verbs also include monosyllabic verbs ending with a diphthong (*juo-* / *d'uo-* from *juvva* / *juuva* / *juoda* / *d'uvva* / *d'uoda* 'to drink'). If the diphthong occurs at the end of a disyllabic vowel stem, the word has two stems (*rubie-n* / *rupie-n* 'I begin to do smth', *ruvek-kah* 'let him/her begin to do smth'), again with the exception of Ludic, in which there is no diphthong in this form (*rubeda-n*, *rubek-kah* / *rubek-kai*). Stems that end with *e* belong to either single-stem verbs (*itke-n* / *ite-n* 'I weep', *itke-kkäh* / *itke-gäh* / *itke-gäi* 'let him/her weep') or to two-stem verbs (*tule-n* 'I come', *tul-gah* / *tul-kah* / *tul-gai* 'let him/her come'). One should also note that verbs with an infinitive form ending with *-ja* ~ *-jä* in Karelian Proper and Livvi-Karelian (*-da* ~ *-dä* in Ludic) have two vowel stem variants (*haravoičče-*, *haravoi-* from *haravoija* / *haravojja* / *haravoida* 'to rake'). Such verbs initially had a consonant stem (**haravoj-*) and thus belonged to the class of two-stem verbs but have since shifted into the class of single-stem verbs.[110]

As shown by the examples in Table 47, it is important to note the possible vowel alternations on the boundary of verb stem and affix. They apply to both short vowels as well as diphthongs, e.g. in the 3rd infinitive (*lugie* / *lugeda* 'to read' : *luge-mah* / *lugo-mah* / *luge-mai*), imperfect (*anda-* / *anta-* : *andoi* / *ando* / *anto* / *anduoi* 'gave'), and passive (*anda-* / *anta-* : *anne-ttih* / *ande-ttih* / *an-ttii* 'they gave').[111]

As verb conjugation can reveal either direct or inverse consonant gradation, it is possible to distinguish strong- and weak-grade verb stems. Gradation is typical of both single-stem (*otta-* : *ota-n* 'I take') and two-stem verbs (*ruvet-* : *rubie-n* 'I begin to do smth', whereas in Ludic: *rubet-* : *rubeda-n*).[112] Regardless of whether direct or inverse gradation occurs in a word, the strong grade always occurs in the indicative and conditional 3sg and the 3rd infinitive. In verbs with inverse gradation (two-stem verbs ending with *-Vta* ~ *-Vtä*), the strong grade is typical also in 1sg and 2sg indicative, whereas in stems with direct gradation, the grade is weak in these forms.[113]

In observing consonant gradation, one must note the two-stem contraction verbs of Karelian Proper and Livvi-Karelian, in which inflectional affixes are added either to the vowel of the strong stem or to the consonant of the weak stem. They deviate from the main rule of consonant gradation in several instances in which the phonetic form of an affix does not explain the occurrence of either grade.[114] For instance, *muata* / *moata* / *mi̯ata* / *maata* 'to sleep' : *magua-n* / *magoa-n* / *magi̯a-n* / *magaa-n* is the pres. ind. 1sg, and *mua-ta-h* / *moa-ta-h* / *mi̯a-ta-h* / *maa-ta-h* is the pres. ind. 3pl. Such cases can be explained by considering the verb stem. For example, in the pres. ind. 3pl, which derives from **mayat* + *ta* + *k* + *sen*, the present affix

[110] On Karelian verb conjugation stems see also Õispuu 1994: 104–159; Adel' 1998: 26–31; Zaikov 2000: 104.

[111] See chapter 3.3 *Vowel alternations in the inflectional stem*.

[112] See chapter 4 *Consonant gradation*.

[113] In Ludic dialects, only quantitative consonant gradation occurs.

[114] This feature does not concern those Ludic dialects of which quantitative gradation is not typical.

**-k* that closes the syllable has prompted the qualitative shortening of the geminate that has been formed on the boundary of the consonant stem and the passive voice affix *-ta* (see OFUJA: 84). The irregular closed-syllable strong grade in the pres. ind. 1sg is explained by the nature of contraction verbs. It has to do with the original form of the vowel stem, *makaδa-*, in which the palatal consonant is located away from the boundary of the stem and suffix, so adding an affix could not have affected it in any way.

Like certain nominals, some verbs also have different conjugation paradigms in different dialects, and sometimes two parallel inflectional variants may exist in a single dialect (a case of a mixed inflectional type) (e.g. Karelian Proper: *taričča* / *tarita* 'to offer'). Normative grammars have opted for a single variant in such cases.

The classification of verb stems in Bubrih's grammar (Table 48) is based on their final vowel: 1) verb stems ending with *-o*, *-ö*, *-u*, *-y*, 2) verb stems ending with *i*, 3) verb stems ending with *-a*, *-ä* that divide into two subgroups (verbs with a disyllabic stem and *a* or *ua* in the first syllable / all other verbs), 4) verb stems ending with *-e* that divide into two subgroups (disyllabic verbs in which *-e* is preceded by *g*, *m*, *tk*, *sk*, *ht*, *d* / all other verbs), 5) verb stems that end with a long vowel and divide into two subgroups (monosyllabic stems / disyllabic stems). Also verbs ending with *-ne* (Type 6), *-ičče*, *-ačče ~ -äčče* (Type 7), *-ičče (*Type 8) are divided into their own groups (Bubrih 1937: 65–78). Of these eight types some are divided into subtypes based on their stem final-vowel alternations (Type 3), stem syllable count (Type 5), and the existence of a consonant stem (Type 4). Similar in structure is Anisimov's classification, which considers stem final vowels and their changes, but also the possible consonant stem and stem syllable count. However, verbs ending with *-ne*, *-ičče*, *-ačče ~ -äčče* have not been divided into subgroups; instead, they are placed with verbs whose stems end with *e*. (Anisimov 1939: 125–131.)

Ahtia's verb stem classification focusses on distinguishing vowel and consonant stems, but it also considers dialect features, single-stem (1st infinitive ending with *-V*, *-vA*), "partly" two-stem (e.g. *tiedeä* / *tietä* 'to know', *keätä* / *keändeä* 'to turn', *suvajja* 'to love'), and two-stem verbs (1st infinitive ending with *-lA*, *-nA*, *-rA*, *-tA*) (Ahtia 1938: 83–85).

Contemporary normative grammars of Karelian divide verbs into two major groups: one-stem and two-stem verbs. One-stem and two-stem verbs are divided into types based on the final vowel or consonant of the 1st infinitive. Thus, standard Livvi-Karelian distinguishes one-stem verbs ending with *-ua*, *-iä*, *-uo*, *-üö*, *-ie*, *-ja ~ -jä*, *-ha ~ -hä*, *-va ~ -vä* and two-stem verbs ending with *-ta ~ -tä*, *-la ~ -lä*, *-na ~ -nä* (Markianova 2002: 101–108; Pyöli 2011: 73–78). Zaikov's classification in his grammar of Viena Karelian also considers inflectional changes that occur in stems. He distinguishes the following groups of single-stem verbs, in which the 1st infinitive ends with 1) *-a*, *-ä*, 2) *-o*, *-ö* and the stem ends with *o*, *ö*, 3) *-o*, *-ö* and the stem ends with *u*, *y*, 4) *-e* and the stem ends with *e*; 5) *-e* and the stem ends with *i*, and 6) *-va ~ -vä*, *-ja ~ -jä*, *-ha ~ -hä*. Correspondingly, two-stem verbs are divided into types in which the basic form ends with 1) *-(a)ta ~ -(ä)tä* and the vowel stem ends with a diphthong, 2) *-(a)ta ~ -(ä)tä* and the vowel stem ends with *-ja ~ -jä*, 3) *-(u/o)ta-*; 4) *-(e/i)ta ~ -(e/i)tä* and the vowel stem ends with the diphthong *ie*, 5) *-(i)ta ~ -(i)tä-* and the vowel stem ends with *če-*, 6) *-(e)ta ~ -(e)tä + puata* and the vowel stem ends with *ne-* and 7) stems ending with *-la ~ -lä*, *-na ~ -nä*, *-ra ~ -rä*, *-sa ~ -sä*, *-ha ~ -hä*. (Zaikov 1999: 64–67; Zaikov 2002: 71–72; Zaikov 2013: 146–151.)

The lack of significant differences in verb stem types between the various Karelian dialects with their standard varieties is due to their common Finnic background and the relative grammatical stability against external influences.

8.2 Personal forms of verbs

The grammatical categories of person and number express the relationship between the subject of action and the speaker. Meanings are determined in personal forms of verbs as follows: the first person conveys the speaker (the speaking person); the second person refers to a person or an inanimate referent at whom speech is directed at (receiver, target of vocation); the third person refers to some other person or inanimate referent that does not take part in speech. (LÈS; Ahmanova 2007; VISK § 106.)

In Karelian the category of person is closely connected to that of number, as the latter does not have an affix of its own. Some grammars use the terms *person/number forms of verbs* and *person/number suffixes*, but in this study Finnish terminology is followed in opting for the simpler terms *personal forms* and *personal suffixes*, with the understanding that they cover the category of number as well. Karelian verb forms that conjugate have six personal forms: the 1st, 2nd, and 3rd person singular, and the 1st, 2nd, and 3rd person plural.

The categories of person and number are expressed in Karelian with personal suffixes that are added to the stem or inflectional stem representing the lexeme that contains the tense, mood, or passive affixes. Personal suffixes are most visible in the present indicative. The imperfect indicative 3sg lacks a personal suffix, i.e. it has a zero ending, whereas 1pl and 2pl in Karelian Proper have personal suffixes which are different from the corresponding present tense suffixes. Only four personal forms have a personal suffix in the conditional mood: 1sg, 2sg, 1pl, and 2pl. Imperative personal suffixes are significantly different from other mood suffixes. These features are detailed in the chapters on verb conjugation and mood tenses.[115] The analysis in this chapter focusses on present indicative personal suffixes (Tables 49 and 50).

The 1sg and 2sg personal suffixes in Karelian dialects (Table 49) are *-n* and *-t*[116], which in the present indicative are added directly to the weak stem of single-stem verbs or to the strong stem of two-stem verbs (*ota-n* 'I take', *ota-t* 'you take', *tule-n* 'I come', *tule-t* 'you come'). Only in the Tikhvin dialect the suffix is replaced with a nasalised vowel which is the same as the preceding vowel (*muissa-a* 'I remember', *ajele-e* 'I drive'). The assimilation *n* > *m* may occur in speech stream when the following word begins with a labial consonant. In Livvi-Karelian and Ludic subdialects and South Karelian dialects of Karelian Proper, the voiced and often positionally determined variant *-d* / *-D*[117] may occur in the 2sg suffix.

The most widely spread pres. ind. 3sg suffix variants in Karelian dialects are *-u* ~ *-y*, *-v*, *-w*. They are added to the vowel stem of a verb without causing gradation (*näkö-y* / *näge-y* / *nägö-y* / *nägö-v* 'he/she/it sees', *juo-u* / *d'uo-u* / *d'uo-v* 'he/she/it drinks'). Due to the influence of Veps, the Ludic Mikhailovskoye dialect uses the affix *-b* (*nägo-b*, *d'uu-b*). The final vowel *-e* of the stem preceding the 3sg affix turns into *o* ~ *ö*.[118] This is due to regressive assimilation, which has occurred in a position before the bilabial consonant of the affix (*tule-* : *tulo-u* / *tulo-v* / *tulo-b* 'he/she/it comes'), with the exception of certain instances in which the *e* is retained in subdialects of Padany and Myandusel'ga dialects (*lähte-u* 'he/she/it leaves'). (See Õispuu 1994: 60–62; Adel' 1998: 34–35; Zaikov 2000: 32–60, 104; Atlas: map 139; Programmy: 133.)

In some subdialects of Karelian Proper (Suoyarvi, Suystamo, Tikhvin) and Livvi-Karelian dialects (Vidlitsa, Tulomozero, Salmi), it is possible to use other short vowels (*-a*, *-ä*, *-o*, *-ö*) in the pres. ind. 3sg suffix, as, for example, the suffix has been assimilated to the preceding vowel

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[115] See chapter 8.3.2 *Imperfect*, 8.4.2 *Imperative*, 8.4.3 *Conditional*, 8.4.4 *Potential*.

[116] 1st and 2nd person suffixes derive from the Finno-Ugric suffixes **-m*, **-t* which have developed from the corresponding personal pronouns *minä 'I', *sinä 'you' (see OFUJA: 81; Hakulinen 1979: 249–250; Häkkinen 1985: 100).

[117] See chapter 2 *Consonants*.

[118] See chapter 3.4 *Other word stem-final vowel alternations*.

(*nägö-ö* 'he/she/it sees'). If the verb stem ends with a diphthong or a long vowel, it is possible to use a zero ending in some subdialects in the in the pres. ind. 3sg to prevent a triphthong (e.g. Vychetaybola: *juo* 'he/she/it drinks'; Tikhvin: *häm magua* 'he/she/it sleeps'; Tulomozero: *häi toraa* 'he/she/it fights'). In subdialects of Tihkvin, the 3pl suffix *-h*, which has also spread into other verb types, is used in such cases (*magua-h* 'he/she/it sleeps', *aštu-h* 'he/she/it walks'). (See Rjagoev 1977: 111; Zaikov 2000: 52–57; Programmy: 133.)

It is possible to use the suffixes *-pi*, *-vi*, *-bi* in single-stem verbs that end with a diphthong (*juo-pi* / *juo-bi* 'he/she/it drinks', *voi-pi* / *voi-bi* 'he/she/it can')[119] in Karelian Proper Viena Karelian dialects and Karelian Proper subdialects of Border Karelia (Suoyarvi, Korpisel'kya, Ilomantsi, and Suystamo) and in Livvi-Karelian dialects (Programmy: 133). In such cases, Reboly and Ves'yegonsk subdialects use the suffix *-ppi* (Reboly: *nai-ppi* 'he marries', *ui-ppi* 'he/she/it swims'). The geminate has developed from the contamination of *-v* and *-pi*, which is confirmed by disyllabic verb forms recorded by Genetz in the late 1800s in Reboly subdialects and Livvi-Karelian dialects, in which the suffixes *-ppi*, *-bi*, *-b* occur after *-v* (Livvi-Karelian: *anda-v-bi* 'he/she gives', *kirbuo-v-bi* 'he/she falls'; Reboly: *anda-v-ppi*).

Karelian Proper dialects typically use the 2sg suffix *-t* / *-d* with monosyllabic verb stems that end with a closing diphthong as the pres. ind. 3sg suffix (*voi-t* / *voi-d* 'he/she can') (see Zaikov 2000: 55–56; Programmy: 133).

The present indicative 1pl and 2pl suffixes (see Table 50) are in Karelian Proper *-mma ~ -mmä, -tta ~ -ttä* (*niä-mmä* / *neä-mmä* / *nee-mmä* 'we see', *löyvä-ttä* / *löyvvä-ttä* / *lövvä-ttä* 'you find'), and in the Dyorzha dialect, due to apocope, *-mm*, *-tt* (*niä-mm*, *löyvä-tt*). Livvi-Karelian has the suffixes *-mmo ~ -mmö*, *-tto ~ -ttö* (*näi-mmö*, *löyvä-ttö* / *lövvä-ttö*) and Ludic *-mme*, *-tte*, *-mm*, *-tt*, *-m*, *-t* (Mikhailovskoye) (*näge-mme* / *näge-mm*, *löydä-tte* / *löydä-t*).[120] (See Õispuu 1994: 62–64; Adel' 1998: 34–35; Zaikov 2000: 60–80; Atlas: map 140; Programmy: 133.) Suffixes close the final syllable of stem. If there is gradation in the stem, the suffix is always preceded by a weak stem.

The influence of Russian is a possible explanation for the activation of impersonal (single-person) passive verb forms, which had led to their use in 3pl (OFUJA: 82). Thus, the present tense 3pl suffix is formed by adding the suffix *-h*[121] to a particular plural stem which contains the weak-grade passive affix (passive present stem).[122] With polysyllabic single-stem verbs, the weak-grade passive variant *-tta ~ -ttä*, *-ta ~ -tä* is added to the weak vowel stem[123] (*anne-ta-h* / *ande-ta-h* 'they give'). The 3pl stem of single-stem verbs whose stem ends with a diphthong, and the 3pl stem of two-stem verbs in the present indicative, are identical to the 1st infinitive (*jiä-hä-h* / *jeä-hä-h* / *diä-hä-h* / *deä-jä-h* / *jie-jä-h* / *jiä-dä-h* / *diä-dä-h* 'they leave', *pan-na-h* / *pan-da-h* 'they put', *ruve-ta-h* / *rube-ta-h* 'they begin to do smth'). In South Karelian dialects of

[119] 3sg suffixes derive from the suffix **-pi* : *-vi* (< present participle affix *-*pA*), which was subject to consonant gradation. The strong-grade variant **-pi*, which is retained in contemporary Karelian dialects, occurred with monosyllabic verbs. The suffix **-vi* occurred after an unstressed syllable which, due to separate development, has lost its vowel and since turned into a vowel (*vi* > *v* > *w* > *u* > *u* / *y*). (See OFUJA: 82; Hakulinen 1979: 251; Häkkinen 1985: 101; Zaikov 2000: 51.)

[120] These suffixes derive from the Finno-Ugric affixes **-kmVk*, **-ktVk*, in which the first *k* – the present tense affix – has been assimilated to the consonant that follows it, whereas the other *k* – the plural affix – has been lost over time (OFUJA: 81; Hakulinen 1979: 250). In Livvi-Karelian and Ludic, the final consonant in the ancient suffixes *-mmA*, *-ttA* has been reduced due to the influence of Veps, or been lost over time, and been later replaced by *o*, *ö* in Livvi-Karelian and *e* in Ludic (see Posti 1942: 215; Itkonen 1971: 171–173; Zaikov 2000: 62–65).

[121] The suffix derives from the ancient affix **-hen* < **-zen* < **-ksen* (in which *k* is the present affix and *sen* is the 3sg suffix), the adding of which has prompted quantitative gradation in the passive affix (**kačo-ta-ksen* 'they watch') (see Hakulinen 1979: 240–241).

[122] See chapter 8.6 *Passive*.

[123] The weak grade in the verb stem follows from the original passive affix *-tta ~ -ttä*. It has shortened during a particular developmental phase of the language due to the closed stem in the inflectional stem of the passive (*ote-ta-h* < **ote-ta-hen* < **otte-tta-ksen* 'they take').

Karelian Proper (Padany, Rugozero, Tunguda, Poduzhemye, Myandusel'ga, Tikhvin, Dyorzha) the 3pl suffix may turn into a vowel: *-h* > *-a* ~ *-ä* (*anne-ta-a*, *pan-na-a*, *ruve-ta-a*). The suffix turns into a vowel also in northern dialects of Ludic: *-h* > *-U*, likely due to the influence of the 3sg suffix (*diä-dä-y*, *an-ta-u*, *pan-da-u*). There are two parallel forms in the Ludic Mikhailovskoye dialect: *-ze*, which is added to the passive present stem (*dia-da-ze*, *an-ta-ze*, *rube-ta-ze*), and the active 3pl *-ba* (*pano-ba* 'they put', *tulo-ba* 'they come'). (See Adel' 1998: 32–33; Zaikov 2000: 80–99; Zaitseva 2001: 60–63; Atlas: map 141; Programmy: 135.)

In Karelian Proper and Livvi-Karelian, there are 3pl forms that have been formed from polysyllabic single-stem verbs ending with *e*. Their stems are not subject to consonant gradation, and they have not retained a passive affix. They are so-called relic forms (*lähtie-h* < **lähte-ä-h* < **lähte-δä-hen* 'they leave', *lugi-a-h* 'they read'). There are also wide-spread contamination forms that combine both variants (*lähti-e-tä-h*, *lugi-e-ta-h*). (See Zaikov 2000: 87–94; Programmy: 135.)

The 1sg and 2sg affixes in the standard varieties of Karelian (Table 41) are *-n* and *-t*. The pres. ind. 3sg suffix is *-u* ~ *-y*, with the exception of Ahtia's grammar, in which *-v* is used and single-stem monosyllabic verb stems also have the parallel suffix variant *-bi*.

In Bubrih's and Anisimov's varieties of the common literary language, the pres. ind. 1pl and 2pl forms are based on Karelian Proper, i.e. they use the suffixes *-mma* ~ *-mmä*, *-tta* ~ *-ttä*. Ahtia's grammar uses the Livvi-Karelian suffix variant *-mmo* ~ *-mmö*, *-tto* ~ *-ttö*. Rules of the contemporary standard varieties of Karelian are based on the respective dialects. The 3pl suffix in all standard varieties is *-h*. It is added to the plural inflectional stem that contains a weak-grade passive affix. There is a mention in Ahtia's grammar that 3sg can also be used in a plural sense (Ahtia 1938: 74).

1sg expresses the relationship between the action and the speaker: *Mie joga päiviä kävyn školah.* 'I go to school every day.' (Anis), *Mie lähen kauppah.* 'I will go to the shop.' (ZaiK). The corresponding plural form expresses the relationship between the action and a group of people that includes the speaker: *Myö seizomma aerodromal i vuotamma samol'ottua.* 'We are standing on the airfield and wait for the aeroplane.' (Anis), *Myö luvemma kirjua.* 'We are reading a book.' (ZaiK).

2sg expresses the relationship between the action and the listener: *Näjetgo sie midä?* 'Do you see anything?' (Anis), *Sie nyt tuot kotih halkuo.* 'Now bring home some firewood.' (ZaiK). They are also used in a generic personal meaning when the actor could be anyone: *Midä ečit, sidä i suat.* 'What you look for is what you will find.' (Anis), *Toisella hautua kaivat, iče siih lankiet.* 'If you dig a pit for someone, you will fall into it yourself.' (ZaiK). The 2pl expresses that the action is directed at a group of people that does not include the speaker: *Konsa työ rupietta issuttamah potakkua?* 'When will you start planting the potatoes?' (ZaiK).

3sg expresses that the action is directed at a person who is neither the speaker not the listener, or at an inanimate referent: *Samol'otta terväh lähenöy.* 'The aeroplane is nearing fast.' (Anis), *Mitä hiän sielä ruatau?* 'What is he/she doing in there?' (ZaiK). They are also used in a generic personal meaning, when the actor could be anyone: *Järven vastarannalla voi piässä venehellä.* 'One can get to the other shore of the lake on a boat.' (ZaiV). They are also used in an impersonal sense, when the action takes place regardless of an actor (verbs indicating a state of nature, the physical and psychological condition of a person, a wish, or a necessity): *Jo hämärdüü, pidäü kiirehtiä kodih.* 'It is getting dark, (I/we) should hurry back home.', *Kalan süödüü juotattau.* 'Eating fish makes one thirsty.' (Mark), *Ulkona vihmuu ta tuulou.* 'It is rainy and windy outside.', *Lasta jo n'ukuttau.* 'The child is tired already.', *Miula pitäy lähtie kalalla.* 'I will have to go fish.' (ZaiK). 3pl expresses an action directed at a group of people that does not include the speaker ("active meaning"): *Lapset astutah meččäh.* 'The children walk into the woods.' (Anis); *Lapset ollah luokassa.* 'The children are in class.' (ZaiK). It also expresses action

directed at an uncertain group of people (”passive meaning”): *Koissa paissetah kalakukkuo.* ’They are baking fish-filled bread at home.’ (ZaiK). (Zaikov 1999: 67–69; Zaikov 2000: 30–99; Markianova 2002: 111–112; Zaikov 2002: 75–76.)

8.3 Grammatical tense

Tense is a grammatical category of the verb, temporally placing an event or situation that is the topic in a sentence. Thus, verb tenses express that the moment of speaking, or some other point in time, is simultaneous with the event (present tense), or that it took place before the event (past tense) or will take place after it (future tense). (LÈS.)

In the Karelian language, the opposition of present (present tense) and past forms (imperfect, perfect, pluperfect) is expressed grammatically. Its grammatical system features both simple synthetic tense forms as well as analytical compound forms, which are formed with an auxiliary verb.

The number of tenses varies between the grammars of Karelian. Even the earliest descriptive grammars by Genetz distinguish the present tense and three past tenses: the imperfect, perfect, and pluperfect. It is also mentioned that in most dialects, the perfect and pluperfect are replaced by imperfect forms. (Genetz 1880: 220; Genetz 1885: 178.) In addition to the simple form of the present-future (*puhun* ’I will blow’) and the compound future (*rubien puhumah* ’I will blow’), Beljakov also mentions two past tenses: the simple past (*puhuin* ’I blew’) and the compound past tense, formed from the personal imperfect forms of the verb *ruveta* and the 3rd infinitive (*rubein puhumah* ’I began to blow’) (Beljakov 1948: 71–73). Anisimov also distinguishes two simple tenses, the present and the past, but he also mentions compound tenses that have been formed with the auxiliary verb *ruveta* and the infinitive ending with *-mah ~ -mäh* or with the auxiliary verb *olla*. It occurs both in the present and past tense and in the active 2nd participle (perfect and pluperfect). (Anisimov 1948: 110–111.)

In his grammar of the common literary language of the 1930s, Bubrih describes four tenses: 1) the simple past tense, with the present and limited future meanings (*sanou* ’says’); 2) simple past tense (*sanoi* ’said’); 3) present compound tense with an unlimited future meaning (*rubieu sanomah* ’will say’); 4) past compound tense (*rubei sanomah* ’began to say’). It is also mentioned that compound tense forms, which are only known in some main dialects of Karelian, are excluded from the literary language (Bubrih 1937: 61–62). In Anisimov’s common literary language there are three tenses in the conjugation system, each with both a simple and a compound form: the present tense (*Mie luven kniigua*. ’I am reading a book.’, *Mie olen lugemas*. ’I am reading a book.’), the past tense (*Mie luvin kniigua*. ’I was reading a book.’, *Mie rubein lugemah* ’I began to read.’), the future tense (*Mie luven kniigan*. ’I will read a book.’, *Mie rubien lugemah kniigua*. ’I will read a book.’) (Anisimov 1939: 105–112). Ahtia’s normative grammar distinguishes two simple tenses and seven compound tenses which occur in all moods: the simultaneous present (*annan* ’I give’), the imperfect (*annoin* ’I gave’), *yleisfutuuri* [the general future][124] (*lienen andamah* ’I will give’); *edellinen perfekti* [the previous perfect] (*olen andanuh* ’I have given’), the pluperfect (*olin andanuh* ’I had given’), *päättymisfutuuri* [the finishing future] (*roimmos andamah* ’I will give’); *seuraava kestämisfutuuri* [the following continuative future] (*olen andaj* ’I am to give’), *edellisfutuuri* [the previous future] (*olin andaj* ’I was to give’), and the *vastaisfutuuri* [the due-time future] (*lienen andaj* ’I will give’) (Ahtia 1938: 73, 99–105).

Both the descriptive and normative grammars of the early 1900s show that there was no established classification system for verb forms expressing temporal relations. Newer

[124] Finnish terms as used in Ahtia’s grammar.

grammars of Karelian usually distinguish the present tense and three past tenses: the imperfect, perfect, and pluperfect. Additionally, it is stated that the use of a compound form is rather infrequent (Palmeos 1962: 53; Rjagoev 1977: 110, 135; Barantsev 1985: 136, 151). Dialect materials show that the use of perfect and pluperfect in South Karelian dialects of Karelian Proper is minimal. This is due to the strong influence of Russian grammar. In these dialects, past time is most often expressed via the imperfect, regardless of the action's relationship to a present or some past event. In other dialects, compound past tenses are rather common, and the line between past tenses is observable (see Zaikov 2000: 157; 160). The contemporary standard varieties of Karelian use compound past tenses (Zaikov 1999: 70–78; Markianova 2002: 122–125; Zaikov 2002: 80–82; Pyöli 2011: 90–92; Zaikov 2013: 147).

The future tense is not a distinct grammatical category in most grammars, as the future tense is not expressed morphologically in Karelian. The future meaning is expressed via present tense forms, and it can also be indicated by corresponding temporal adjectives, e.g. *huomen*(*n*)*a* / *huomei* / *huomen* 'tomorrow', *teräväh* / *terväh* / *teräväi* / *terväi* 'soon' (*Huomei luven kniigan*. 'I will read the book tomorrow.' [Pyöl]). The future meaning is also indicated by the use a total object, which shows that the action of the verb is limited, e.g. *kirjutan kirjaže**n*** 'I will write a letter' (AnisG), *Mie tämä**n** tütö**n** otan miehellä*. 'I will marry this girl' (Palm). The future is also expressed via the verb *lietä* / *lieta* 'to become', e.g. *Teilä hyvä lienöö elämine*. 'Your life will be good.' (Ryag) or analytically with structures and the auxiliary verbs *ruveta* / *rubeta* 'to begin to do smth', *roita* / *roijja* 'to become', e.g. *Mögizen i mögizemäh rubien*. 'I yell and yell I will' (Palm), *Uudeh sijah roimmos elämäh*. 'We will start living in a new place.' (RjagL), *Sinä kodvazen peräs roit kuulemah sidä*. 'You will hear it in a moment.' (Mark). (Palmeos 1962: 58; Manzhin 1964: 53; Rjagoev 1977: 137; Rjagoev 1987: 287, 299–301; Õispuu 1994: 69–70; Adel' 1998: 70–72; Zaikov 2000: 100; Markianova 2002: 126; Pyöli 2013: 92–93.)

As with other Finnic languages, the category of tense in Karelian is closely tied to the category of mood, which sometimes makes it difficult to differentiate between the two. With some moods, the opposition of tenses is completely missing (the imperative), or it is minimal (the potential), as both mood and tense affixes are not used simultaneously in Karelian. The category of tense is most visible in the indicative, due to its lacking an affix. For this reason, indicative tenses in particular are analysed in this chapter.

8.3.1 Present tense

The present tense is a form of the tense category which expresses an action or process occurring at the time of speaking. As with other Finnic languages, the present tense in Karelian is unmarked; it does not have an affix.[125] In the present indicative, personal suffixes are added directly to the verb stem (to the plural stem in 3pl forms / the passive stem)[126] (see Tables 49 and 50). (See Bubrih 1937: 61; Ahtia 1938: 76; Palmeos 1962: 64; Rjagoev 1977: 124; Barantsev 1985: 147–148; Rjagoev 1987: 297; Õispuu 1994: 64–65; Adel' 1998: 49–51; Zaikov 1999: 70–72; Markianova 2002: 113–114; Zaikov 2002: 77; Pyöli 2011: 82; Zaikov 2013: 152.)

Certain individual personal forms are morphologically distinct in the present tense, namely 3sg, which receives personal suffixes only in the present (and not in the imperfect), and the Karelian Proper 1st and 2nd person forms, in which the personal suffixes in the present tense differ from those in the imperfect.

Basic meanings of the present tense are:

[125] Historically, the present tense affixes are **-k* (reflections of which can be seen in the 1st and 2nd person suffixes) and **-pi* : *-vi* (occurring in the 3rd person singular) (OFUJA: 82).

[126] See chapter 8.2 *Personal forms of verbs*.

– the action occurs simultaneously with the moment of speaking: *Mie luven kniigua*. 'I am reading a book.' (Anis), *Mie syön kalarokkua*. 'I am eating fish stew.' (ZaiK), *Lapsi maguau*. 'The child is sleeping.' (Mark), *Midäbo sinä ruat?* 'What are you doing?' (Pyöl);

– reoccurring action: *Häi ajelou suveh joga vuottu*. 'He travels south every year.' (Mark), *Myö käymmä kylyh joka suovatta*. 'We go to the sauna every Saturday.' (ZaiK), *Ajelemmo duačale joga nedälinlopukse*. 'We go to our dacha every weekend.' (Pyöl);

– constant action, a so-called constant state present: *Ristikanza hengittäy kouhkoloil.* 'A person breathes with their lungs.' (Anis), *Hukku eläü mečäs*. 'A wolf lives in the woods.' (Mark), *Korves kazvau must'oidu.* 'There are bilberries in the forest.' (Pyöl).

The same present is also used to express the future: *Mie luven kniigan.* 'I will read the book.' (Anis), *Minä tulen toiči*. 'I will come again.' (Mark), *Konsanih myö koko luokalla lähemmä Moskovah*. 'We will go to Moscow with our whole class sometime.' (ZaiK). The present tense can also be used in narration to express a past time for illustration purposes (the narrative present, historical or dramatic present): *Egläi kaiken päivän mie olin mečäs. Astun illal kodih, kiirehtän.* 'I was in the woods the whole day yesterday. I'm walking home at night, hurrying.' (Anis), *Naini läksi kylyö lämmittämäh, ta lämmittäy ta lämmittäy.* 'Wife went to warm up the sauna, warms and warms it up.' (ZaiK). (See Anisimov 1939: 105, 113; Rjagoev 1987: 297; Adel' 1998: 48–49; Zaikov 1999: 70–71; Zaikov 2000: 108–109; Markianova 2002: 114; Zaikov 2002: 77; Pyöli 2013: 81–82; Zaikov 2013: 155.)

8.3.2 Imperfect

The imperfect, or simple past, is a verb tense expressing a past action or event. It has the affix *-i* in all Karelian dialects, with the allomorph *-ii*[127] occurring in the Southern Karelian dialects of Karelian Proper, particularly in the enclave dialects. In Karelian Proper dialects, the affix *-zi* / *-si*[128] occurs in parallel with *-i* in disyllabic contraction verbs ending with *-ta* ~ *-tä*. Whereas both types of the imperfect are used in parallel in the Viena Karelian dialects of Karelian Proper, their occurrence in South Karelian dialects is random, whereas the forms ending with *-zi* are unknown to the Suoyarvi and Suystamo dialects and to the enclave dialects of Inner Russia, with the exception of vowel-stem verbs ending with *-ja* ~ *-jä* in the Valday dialects (Voknavolok: *varasi-n*, *makasi-ma*, Yushkozero, Valday: *varata* : *varazi-n* / *varazii-n*, Padany: *erozi-ma*, Tunguda: *kizazi-ma*). It is likely that the forms lacking the *s* element have spread into South Karelian dialects from the Livvi-Karelian dialect area. (See Õispuu 1994: 65; Adel' 1998: 55–60; Zaikov 2000: 130–138.)

Imperfect affixes are added to the vowel stem of the verb, thus forming the imperfect inflectional stem, followed by personal suffixes used in the present tense, or, in certain Karelian Proper dialects, particular imperfect personal suffixes.

In all Karelian dialects, the suffixes *-n*, *-t* / *-d* used in the 1sg and 2sg imperfect forms are identical to those used in the the present tense (*tiezi-n* / *tiezii-n* / *tiesi-n* / *tiesii-n* / *tieži-n* / *tiežii-n* / *tiiji-n* 'I knew', *avazi-t* / *avazi-d* / *avasi-t* / *avaiži-d* / *avažii-t* / *avažii-d* / *avai-t* / *avai-d* 'you opened'). A zero suffix is used with 3sg. The grammatical form features an imperfect stem with the imperfect affix *-i*, although it is missing from certain Karelian Proper conjugation types (*kirjutti* / *kird'utti* 'he/she wrote', *ando* / *anto* / *andoi* 'he/she gave', *tuli* 'he/she came',

[127] This affix derives from the Finno-Ugric affix **-j* (OFUJA: 82; Häkkinen 1985: 116).

[128] Ancient Karelian has likely only featured the affix *-si-* / *-zi-*, which has formed due to the sound alternation **ti* > *si*. Forms lacking the *s* element are later analogies of single-stem verbs, having formed before the Karelian migration to Inner Russia (see Zaikov 2000: 133–135). It is possible that the imperfect with the affix *i* is the original form, whereas the *s* element was borrowed into Karelian Proper subdialects of the Russian Karelia from the Finnish language (Lehtinen 1982: 1).

kezräzi / *kesräsi* / *kezräži* / *kezräz* / *kezräi* 'he/she weaved'). In the Kondushi dialect, the suffix *-i* has opened into the vowel *-e* (*tul'e*), whereas in the Dyorzha dialect it has been elided due to apocope, although the form may be identified by the remaining palatalisation.

Similarly to its present tense counterpart, the imperfect 3pl is formed by adding the suffix *-h* / *-he*, which has become voiced in some Karelian Proper and Ludic subdialects, and in some South Karelian dialects it has since shortened. The suffix is added to a particular plural stem, which contains the strong-grade passive voice affixes *-tta* ~ *-ttä*[129] (polysyllabic single-stem verbs), *-ta* ~ *-tä*, *-da* ~ *-dä* (other verbs), the vowel *a* ~ *ä* of which is lost preceding the imperfect affix *-i* (*syödi-h* / *šyödi-h* / *syöti-h* / *šyö-tih* / *syödi-i* / *šyödi-i* / *syödi* / *šyödi* / *šyödi-he* 'they ate', *eletti-h* / *eletti-i* / *eletti* / *eletti-he* 'they lived', *muatti-h* / *moatti-h* / *maatti-h* / *maatti-i* / *mootti-i* / *muatti* / *magatti-h* / *magatti-i* / *magati-he* 'they slept'). (See Õispuu 1994: 66–69; Adel' 1998: 33, 55–65; Atlas: maps 142, 147; Programmy: 135–137.)

The imperfect personal 1pl and 2pl forms are formed in Livvi-Karelian and Ludic dialects by adding to the stem the same affixes as with the present tense (*kannoi-mmo* / *kandoi-mme* / *kanduo-mme* / *kandui-mm* 'we carried', *sanoi-tto* / *sanui-tte* / *sanuo-tte* / *sanui-tt* 'you said', *keräi-ttö* / *keräi-tte* / *keräži-tte* / *keräžii-tt* 'you gathered'). In Karelian Proper dialects, with the exception of individual South Karelian subdialects — such as the subdialects of Border Karelia, Ves'yegonsk, and Tikhvin — particular personal suffixes *-ma* ~ *-mä* and *-a* ~ *-ä* are used with 1pl and 2pl, respectively, and the preceding *i* changes into *j*, thus forming the suffix *-ja* ~ *-jä* (*kando-ma* / *kanto-ma* 'we carried', *šano-ja* / *sano-ja* 'you said', *keräzi-jä* / *keräsi-jä* / *keräzi-a* / *keräsi-ä* 'you gathered', Karelian Proper dialects of Border Karelia [Suoyarvi, Korpisel'kya, Ilomantsi, and Suystamo], Ves'yegonsk, Tikhvin: *kannoi-mma*, *sanoi-tta* / *šanoi-tta*).[130] (See Õispuu 1994: 62–64; Adel' 1998: 34–35; Atlas: maps 144–146; Programmy: 135.) According to Genetz, in the Viena Karelian dialects of Karelian Proper and the Reboly dialect, the vowels *a* and *ä* in the 2pl suffix may be changed by contraction to *e*, thus forming the diphthong *ie* (see Genetz 1880: 215). Verbs with an imperfect inflectional stem ending with a diphthong receive in the 1pl and 2pl the same suffixes as in the present tense (*šai-tta* / *sai-tta* 'you received', *keräi-ttä* 'you gathered'). Therefore, in dialects it is possible to use either affix variant in contraction verbs (*keräzi-jä* / *keräsi-jä* or *keräi-ttä*).

In Karelian Proper dialects, excluding the southernmost Myandusel'ga, Porozero, and Suoyarvi subdialects, the imperfect affix is deleted in the stem-final position following a labial vowel (*šano* / *sano* 'he/she said', cf. Livvi-Karelian: *sanoi*, Ludic: *sanuoi* / *sanoi* / *sanui* / *sanuo*).[131] The deletion of *i* also occurs in those dialects in which the diphthong *ij* is typically formed in the imperfect inflectional stem (Tolmachi, Valday, Ves'yegonsk, Myandusel'ga, Porozero). (Palmeos 1962: 55–57; Rjagoev 1977: 130–131; Atlas: maps 142–143; Programmy: 135.) The phenomenon concerns polysyllabic single-stem verbs (*annoi-n* 'I gave', *annoi-t* 'you gave', *ando* / *anto* 'he/she gave', *ando-ma* / *anto-ma* 'we gave', *ando-ja* / *anto-ja* 'you gave'; *oti-n* / *otii-n* 'I took', *oti-t* / *otii-t* 'you took', *otti* 'he/she took', *otti-ma* 'we took', *otti-ja* 'they took'); in dialects with the imperfect affix allomorph *ii* it also concerns two-stem verbs whose vowel stem ends with *e* (*tulii-n* 'I came', *tulii-t* 'you came', *tuli* 'he/she came', *tuli-ma* 'we came', *tuli-ja* 'they came').

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[129] The strong-grade passive affix variant is retained, as it was originally in an open syllable in the imperfect (*otet-tti-h* < *ote-tti-hen* 'they took').

[130] The 1pl and 2pl suffixes have retained their historical form **-i+mVk*, **-i+tVk* in Karelian Proper, whereas a geminate was formed in Livvi-Karelian and Ludic in analogy to the corresponding present tense personal suffixes (see Hakulinen 1979: 250; Zaikov 2000: 77).

[131] The loss of the imperfect affix is explained by a historical phonetic law according to which the second segment of the diphthongs *ui* ~ *yi*, *oi* ~ *öi* is lost in an unstressed syllable. Livvi-Karelian, Ludic, and Veps were affected by a law that retained the *i* (Zaikov 2000: 122), e.g. Karelian Proper: *buabo* 'grandmother', Livvi-Karelian: *buaboi*.

The diphthong is always retained in single-stem verbs that end with a diphthong and in two-stem contraction verbs (*joi-n* 'I drank', *joi-t* 'you drank', *joi* 'he/she drank', *joi-mma* 'we drank', *joi-tta* 'they drank'). The imperfect affix is deleted, as demonstrated by the examples, in the 3sg, but also in the 1st and 2nd person forms which have retained the historical form of the personal suffix. It is likely that the retention of such particular imperfect personal suffixes has contributed to the loss of the suffix *i*, so as to limit the number of grammatical affixes in a single word form. Meanwhile, the imperfect affix is retained in Livvi-Karelian and Ludic, in which, conversely, the geminate variant of the suffix has prevailed. (See Õispuu 1994: 62–64; Adel' 1998: 35; Zaikov 2000: 118–123.)

As the imperfect affix *-i* is added to the verb stem, it may prompt a set of stem-final vowel alternations. Qualitative alternations only concern the short vowels *a*, *ä*, *e*, as in Proto-Finnic only they could occur in a word past the first syllable. Diphthongs are also subject to alternations.[132] As the imperfect affix *-si* is added to the verb stem in the Viena Karelian dialects of Karelian Proper, it also shortens the stem-final diphthong (*keryä-n* 'I gather': *keräi-n* / *keräsi-n* 'I gathered').

As the imperfect affix belongs to the final syllable of the verb stem, the consonant grade is dependant on the structure of the personal suffix that follows the inflectional stem (assuming one exists). The geminate variants of the 1pl and 2pl suffixes close the final syllable of the stem, thus warranting a weak grade in single-stem polysyllabic verbs, whereas the Karelian Proper suffixes *-ma ~ -mä*, *-ja ~ -jä* do not affect the stem consonants (Livvi-Karelian: *kučui-mma* 'we invited', Karelian Proper: *kučču-mo*). A strong stem is used in the imperfect 3sg (*kučču* / *kučču*i 'he/she invited').

Imperfect forms in Karelian dialects demonstrate the historical alternation *t* / *d* : *s* / *z* / *ž* (*tiedäy* 'he/she knows': *tiesi* / *tiezi* / *tieži* 'he/she knew'), which derives from a sound change in Late Proto-Finnic (see Genetz 1870: 228; Zaikov 2000: 125–129). This alternation, specifically, also produced the particular imperfect suffix *-si* / *-zi* / *-ži* occurring in contraction verbs (OFUJA: 82). This is concretely demonstrated by Ludic verb forms that have retained the consonant between vowels, while the vowels have contracted into diphthongs in other Karelian main dialects, e.g. South Ludic: *kerädän* 'I gather' : *keräžin* 'I gathered'.

In all common literary languages of Karelian and standard Livvi-Karelian the only possible imperfect affix is *-i*, which is retained in all positions. Imperfect inflectional stems receive the same personal suffixes as the present tense forms, with the exception of 3sg, which has a zero suffix. In his grammar of the common literary language, Bubrih bases such a system on the logicality of verb form construction: the requirement of the imperfect suffix *i*, which the exception of the diphthong *ij*; the use of same 1pl and 2pl suffixes in all tenses, with no consonant gradation exceptions. (Bubrih 1937: 67–68).

In standard Viena Karelian the imperfect is formed with the suffixes *-i* and *-si*. Both imperfect suffixes may be used with contraction verbs, whereas with vowel-stem verbs ending with *-ja ~ -jä* only the suffix *-si* is used. Other verb types receive the imperfect affix *-i*, followed by personal suffixes, with the exception of the 3rd person. 1pl always receives the single-consonant suffix variant *-ma ~ -mä*, whereas the suffix *-tta ~ -ttä* is used after a diphthong in 2pl (*toi-ta*, *makai-ta*). (See Zaikov 2013: 156–157.) As in the dialects on which the standard variety is based, the imperfect affix is deleted after a labial vowel in single-stem polysyllabic verbs in the 3sg, 1pl, and 2pl forms.

The basic function of the imperfect is to depict an event that took place in the past and is separate from the present time (LÈS; Rjagoev 1987: 297; Adel' 1998: 55; Zaikov 2000: 137; Pyöli 2013: 84; Zaikov 2013: 162). It is used widely in narration and often in conjunction with

[132] See chapter 3.3. *Vowel alternations in the inflectional stem*.

temporal adverbs, such as *eklein* / *eklen* / *eglein* / *eglen* / *egläin* / *egläi* 'yesterday', *ennein* / *ennen* / *enne* / *ende* 'earlier' and such word combinations as e.g. *viime talvena* 'last winter', *mennyd yön* 'last night', *mullozena vuodena* 'last year', *toizena vuodena* / *tossu vuon* / *tož vuoden* 'year before last' (Anisimov 1939: 105; Markianova 2002: 115, 121; Zaikov 2002: 80). An action in the imperfect might be either limited or unlimited: *Ylähänä piän piäl lennettih kurret, i harvazeh kuuluttih heijän iänet*. 'Cranes flew high above [our ~ their] heads, and every now and then their sounds could be heard.' (Anis), *Eklen muamo keitti huttuo*. 'Mother made porridge yesterday.' (ZaiK), *Müö egläi olimmo kinos.* 'We went to the cinema yesterday.' (Mark), *Velli jo lugi lehten.* 'Brother has already read the paper.' (Pyöl).

8.3.3 Perfect and pluperfect

The perfect and pluperfect are compound tenses.[133] They are formed with personal forms of the auxiliary verb *olla* / *olda* 'to be' and the 2nd participle of the main verb, and in the 3rd person with the passive 2nd participle.[134] The main verb, which is in the 2nd participle form, is always in the nominative. In Karelian Proper South Karelian dialects, it is possible to use a plural participle in the nominative plural, e.g. *Hüö ollah tulluot*. 'They have arrived.' (Palm). The difference between the two compound tense forms is that in the perfect the auxiliary verb *olla* / *olda* is in the present tense form, while it is in the imperfect form in the pluperfect (perfect: *on ottan* / *ottanuh* / *ottanu* 'he/she has taken', *ollah* / *oldah otettu* 'they have taken'; pluperfect: *oli ottan* / *ottanuh* / *ottanu* 'he/she had taken', *oldih* / *oltih otettu* 'they had taken'). (Genetz 1880: 220; Genetz 1884: 178; Palmeos 1962: 57–58; Rjagoev 1977: 134–136; Barantsev 1985: 151–153; Rjagoev 1987: 166–167; Õispuu 1994: 36–37; Adel' 1998: 67; Zaikov 1999: 76–78; Zaikov 2000: 157–173; Markianova 2002: 123–125; Zaikov 2002: 80–82; Pyöli 2013: 90–92; Zaikov 2013: 164–167.) The auxiliary verb may be omitted in dialect speech.

The perfect is used to express:

– an action that has begun in the the past and is still continuing at the moment of speech, e.g. *Minä kogo ijän olen suolannuh siendü talvekse*. 'I have been salting mushrooms for the winter my whole life.' (Mark), *Olen elän tässä kylässä jo kaksikymmentä vuotta*. 'I have been living in this village for twenty years already.' (ZaiK), *Olemmo elänüh täs linnas viizi vuottu*. 'We have been living in this city for five years.' (Pyöl);

– an action in the past whose result is connected to the present time, e.g. *Šie olet šündün koiran hännäštä*. 'You were born "from the tail of a dog"' (Palm), *Hän palan oo*. 'He has returned.' (Rjag), *Lapsi on vaikastunnu*. 'The child has become quiet.' (Bar), *Olen lugenuh sen kirjan*. 'I have read that book.' (Pyöl);

– an action preceding an action taking place in the present time, e.g. *Tütöt hüvin paistah karjalakse, ku ollah opastuttu sidä kieldü*. 'The girls speak Karelian well, as they have been studying the language.' (Mark), *Poika mänöy siih muah, kunne on viety tytär*. 'The boy goes to the country where the daughter has been taken.' (ZaiK). (See Rjagoev 1987: 298; Adel' 1998: 66–67; Zaikov 2000: 160; Markianova 2002: 123; Zaikov 2002: 81; Pyöli 2013: 90.)

The pluperfect is used to express consecutive past actions. It expresses a past event that has occurred before the other past event expressed with the imperfect, e.g. *Kalaverkot jiädih vedeh, ku järven oli külmännüh ühteh üöh.* 'The fishing nets had to be left in the water, as the lake had frozen overnight.' (Mark), *Hiän mäni samah taloh, kunne oli tullun hänen čikkoh.* 'He went into the same house that his sister had come to.' (ZaiK). It is also possible to use pluperfect forms that refer to events that have occurred a long time ago in the past individually. However, in such cases, the context reveals some later action: e.g. *Oldih hüö astuttu*. 'They had walked.' (GenA), *Müö olimma uidin edää*. 'We had gone far.' (Rjag), *Eglein oli juoпdan*... '(He/she) had

[133] See chapter 8.3 *Grammatical tense*.

[134] See chapter 8.2 *Personal forms of verbs*.

been drinking the day before…' (Palm), *Sil aiga ukko oli d'o uidinu lidnah.* 'By that time the man had gone to the town.' (Bar), *Ruavot oldih ruatut*. 'The work had been done.' (RjagL), *Silloi ühteh päiväh oli palettu kai taloit küläs*. 'Then, in one day, all the houses in the village had been burned.' (Mark), *Meijän pereh oli elänüh Salmis*. 'Our family had lived in Salmi.' (Pyöl). (See Barantsev 1985: 152; Rjagoev 1987: 298–299; Adel' 1998: 69–70; Zaikov 2000: 166; Zaikov 2002: 82; Markianova 2002: 125; Pyöli 2013: 91.)

8.4 Grammatical mood

Modality expresses the speaker's subjective estimation of how an action relates to reality, i.e. whether the action is truthful, possible, desirable, conditional, etc. Similarly to other Finnic languages, it is expressed in Karelian with analytical structures containing a modal verb and also with particular grammatical forms called moods.

The are two oppositional mood types in Karelian. The indicative expresses the factuality of an action, event, or process, e.g. *Tüttö lugou kniigua*. 'The girl is reading a book.' (Mark). Other moods convey a different speaker estimation of the matter and how it relates to reality. There are three such moods in the Karelian language: the imperative, e.g. *Tüttö luvekkah kniigan loppussah*. 'Let the girl finish reading the book.' (Mark), the conditional, e.g. *Tüttö lugis kniigua, ku ei olis nengoine pimei*. 'The girl would be reading the book if it were not so dark.' (Mark), and the potential, e.g. *Tüttö ku lugenou kniigan loppuh suate, tiijustau äijän uuttu*. 'If the girl finishes the book, she will have learnt a lot.' (Mark). (See Bubrih 1937: 60; Ahtia 1938: 73; Anisimov 1939: 118; Anisimov 1948: 103–105; Palmeos 1962: 53; Rjagoev 1977: 110; Barantsev 1985: 136; Rjagoev 1987: 283–284; Zaikov 1999: 69; Markianova 2002: 128; Zaikov 2002: 70; Pyöli 2011: 94; Zaikov 2013: 151–188.)

Different terms are used for the conditional and potential in the first grammars of Karelian. Genetz calls the conditional the *konditionalis* or *conjunctive*, while the potential is called the *koncessivi* or *conjunctive* (Genetz 1872: 23; Genetz 1880: 212–213; Genetz 1885: 164). Later grammars adopted the terms *conditional* and *potential*.

Traditionally, grammars of Karelian that are written in Russian use the terms *uslovnoe naklonenie* [conditional/conjunctive], *vozmožnostnoe naklonenie* [potential] and *soslagatel'noye naklonenie* [conditional], but there is some variation in their definitions. Beljakov distinguishes the conditional *uslovnoe naklonenie* with the affix is *-nne*, from the conditional *soslagatel'noe naklonenie*, whose affix is *-zi-*, *-is* (Beljakov 1948: 70), while in other grammars, *uslovnoe naklonenie* conversely refers to the conditional whose affix is *-iz-*, *-is*. The conditional is usually called *uslovnoe naklonenie* instead of *soslagatel'noe naklonenie*. Normative grammars of Karelian use the terms *uslovnoe naklonenie* [conditional] and *vozmožnostnoe naklonenie* [potential].

The conditional and potential can be merged into a single mood expressing that the contents of an utterance are not directly based in reality, i.e. a possibility, a condition, a desire, etc. Different grammatical forms used to express different tones of modality make it possible to divide a single mood into two distinct moods. However, the semantic proximity of the conditional and potential has led to the diminished use of the potential in the South Karelian dialects of Karelian Proper, particularly in the enclave dialects, due to which the conditional has in some cases adopted some functions of the potential. An apparent reason as to why one mood has extended its functions while the other's usage has diminished is the influence of Russian. (See Zaikov 2000: 174, 247.)

Mood affixes are added to the verb stem, or, in the 3pl, the passive stem, thus forming the inflectional stem. It may be followed by personal suffixes, with the exception of the indicative, which does not have an affix. In all moods, verbs are inflected in person, number, and tense. As tense and mood affixes are mutually exclusive, the indicative is the only mood with a full

inflectional paradigm. Past time is usually expressed in the imperative, conditional, and potential with compound tenses or particular modal affixes. Thus, the indicative has four tenses, and the conditional has two in Karelian Proper, four in Livvi-Karelian and Ludic, and two in the potential, whereas the imperative has no tenses at all.

8.4.1 Indicative

The indicative is a mood category expressing that the utterance corresponds to reality. The indicative does not have a distinct affix in Karelian, but it has a full conjugation paradigm: the present, imperfect, perfect, and pluperfect.[135] The indicative has six personal forms in total.[136] (See Bubrih 1937: 60; Ahtia 1938: 76; Anisimov 1939: 118; Anisimov 1948: 103; Beljakov 1948: 70; Palmeos 1962: 54–58; Rjagoev 1977: 123–139; Barantsev 1985: 147–153; Rjagoev 1987: 291; Adel' 1998: 74; Zaikov 1999: 69–70; Markianova 2002: 128; Zaikov 2002: 73; Pyöli 2013: 94; Zaikov 2013: 151.)

8.4.2 Imperative

The imperative is a mood expressing a request or an order suggesting the listener to act. The imperative does not have any tenses in Karelian, and it is inflected only in the present tense, as no one can be ordered to act in the past. The imperative has distinct personal suffixes. There is no 1sg imperative, as the speaker cannot also act as the recipient. (Zaikov 1999: 82.)

The 2sg imperative does not have a suffix in Karelian; it is identical with the weak stem of single-stem verbs (*ota* 'take') and the vowel stem of two-stem verbs (*tule* 'come'). In the Karelian Proper Tolmachi and Valday dialects it is possible for a diphthong to form a the end (*kačuo* from *kaччuo* [*kačo-*] 'to look'). The phonetically irregular weak grade in single-stem verbs is explained by the historical, syllable-closing imperative affix **-k* (Hakulinen 1979: 243–244; OFUJA: 83; Häkkinen 1985: 107). It is possible for the 2sg imperative to receive the particles *-han* ~ *-hän* (*tulehan* 'come') in the Viena Karelian dialects of Karelian Proper, *-s*, *-z* (*ota-s* 'take', *pane-z* 'put') in Livvi-Karelian and South Karelian dialects of Karelian Proper, and the Russian loaned particles *-kko* ~ *-kkö* (*tuo-kko* 'bring', *tulie-kko* 'come', *kačo-kko* 'look') in enclave dialects, all of which soften the tone of the order. (Genetz 1880: 213; Genetz 1884: 165; Beljakov 1948: 71; Palmeos 1962: 61–63; Rjagoev 1977: 144–146; Rjagoev 1987: 293; Õispuu 1994: 72–73; Adel' 1998: 76; Zaikov 2000: 179–186.)

The imperative affix in the plural and in the 3sg is *-kka-* ~ *-kkä-*, *-ka-* ~ *-kä-*, *-ga-* ~ *-gä-*.[137] The affix *-kka-* ~ *-kkä-* is added to the vowel stem ending with a short vowel of polysyllabic words. In the Viena and transitional dialects of Karelian Proper and in the northern dialects of Livvi-Karelian (Syamozero, Vedlozero, Tulomozero), adding the affix does not prompt consonant gradation in the stem (*otta-kkVV* 'take'). According to Kettunen, the suffixes containing a geminate palatal consonant formed in two-stem contraction verbs due to the assimilation of the verb stem *t* and the imperative affix **-ka-*. The *k* in the affix of single-stem verbs has then doubled due to analogy, which has not been reflected in the consonant elements of the stem. (Kettunen 1915: 111.) According to Ojansuu, the doubling of the *k* element was caused by its phonetic position at the beginning of a long syllable (Ojansuu 1918: 30–31). In some South Karelian dialects (Rugozero, Tunguda, Reboly, Tikhvin, Tolmachi, Ves'yegonsk)

[135] These suffixes derive from the Balto-Finnic-Samic affix *-ka* (*-*kAme*, **-kaδa*), whose consonant element **k* has been traced to Proto-Uralic (Häkkinen 1985: 108; Zaikov 2000: 176–177).

[136] The 2pl imperative suffix derives from the historical **-käδek* < **-kätek*, in which the loss of spirant has formed a diphthong or a long vowel (Rjagoev 1987: 174).

[137] These suffixes derive from the Balto-Finnic-Samic affix *-ka* (*-*kAme*, **-kaδa*), whose consonant element **k* has been traced to Proto-Uralic (Häkkinen 1985: 108; Zaikov 2000: 176–177).

the strong consonant grade is retained before the imperative affix, whereas in others (Padany, Porozero, Myandusel'ga, Valday, Dyorzha) there is gradation in the stem (*ota-kkVV*), as well as in the Southern dialects of Livvi-Karelian (Vidlitsa, Kotkozero, Nekkulitsy, Rypushkalitsy). An imperative affix which contains a geminate and is added to the strong stem of the verb is also used in Northern Ludic (*otta-kkua*).

The affixes *-ka- ~ -kä-*, *-ga- ~ -gä-* are used in two-stem verbs after the consonant stem. In most dialects, voiceless consonant stems are followed by the affix *-ka- ~ -kä-*. It is used in two-stem contraction verbs, and adding the affix to the consonant stem causes the final *t* to assimilate to it, thus forming the geminate *kk*. The use of the affixes *-ka- ~ -kä-*, *-ga ~ -gä* is also typical of single-stem Ludic verbs that end with a short vowel. In other cases, single-stem verbs ending with a diphthong and two-stem verbs ending with a voiced consonant the imperative affix *-ga- ~ -gä-* is used. The imperative affix *-ka- ~ -kä-*, containing a voiceless palatal consonant, is used in the Viena Karelian dialects of Karelian Proper in all conjugation types, with the sole exception of polysyllabic single-stem verbs whose stem ends with a short vowel.

In subdialects of Karelian Proper and Livvi-Karelian it is possible to use imperative forms whose affixes lack the *k* element. Such forms are apparently descendants of the historical weak-grade imperative affix **-γa ~ -γä*, which has occurred after an unstressed syllable, but in time it has lost the spirant. This origin is suggested by the retained vowel, the adding of which to the vowel stem results in a diphthong or a long vowel (*andoa-t* / *andua-t* / *andoa-d* / *andoa-tto* 'give', *otto-a-da* / *ottua-tto* / *ottua-t* 'take'). In the corresponding Livvi-Karelian subdialect forms it is possible to use two successive imperative affixes (*puuttu-o-kka-h* 'let him get stuck').

In Viena Karelian dialects of Karelian Proper, the 1pl imperative falls together with the imperative inflectional stem, i.e. with a stem ending with *-kka ~ -kkä*, *-ka ~ -kä*, *-ga ~ -gä* (*unohta-kka* 'let us forget', *otta-kka* 'let us take', *tul-ga* / *tul-ka* 'let us come'). Researchers have identified corresponding forms from some subdialects of South Karelian, Livvi-Karelian, and Central Ludic. It is also possible to use personal suffixes in the 1st person plural imperative: in Livvi-Karelian, the suffix is *-mmo ~ -mmö*, added directly to the imperative inflectional stem or to the 2pl imperative form (*unohtakka-mmo*, *otta-kka-mmo* / *otta-kkua-mmo*); in Ludic dialects, the suffix is *-mme*, *-m* (*unohta-ka-m*, *otta-ga-mme* / *otta-ga-mm*); in Karelian Proper dialects it is *-mma ~ -mmä*, *-ma ~ -mä* (*unohta-kka-mma*, *otta-kka-ma*). In Karelian Proper transitional and South Karelian dialects, as well as in Livvi-Karelian and northern dialects of Ludic, the 1pl imperative is often expressed via the present indicative 1pl (*unohamma* / *unahamma* / *unohtammo* / *unohtamme*) or complex structures (*davai* / *ana unahamma*). (See Adel' 1998: 80–81; Zaikov 2000: 200–208; Atlas: map 156; Programmy: 135.)

In Karelian Proper and Livvi-Karelian, the 2pl imperative inflectional stem is followed by the suffix *-a ~ -ä*.[138] The thus-formed vowel sequence changes into a diphthong or a long vowel according to the phonetic laws of each dialect[139] (*andakkua* / *antakkua* / *andakkaa* / *annakkaa* / *annakkoo* / *annakkoa* / *andakkoa* / *andakkia* 'give', *kezräkkiä* / *kezräkkyä* / *kesräkkyä* / *kezräkkee* / *kezräkkeä* / *kezräkkie* / *kezräkkää* 'spin', *tulgoa* / *tulgua* / *tulkoa* / *tulkua* / *tulguo* / *tulgia* / *tulgaa* / *tulgoo* 'come'). In Ludic dialects, the 2pl is formed by adding the personal suffixes *-t*(*te*) / *-d* (*kezräkkä-t* / *kezräkkä-d* / *kezräkka-d*, *tulga-tte* / *tulga-tt* / *tulga-t*, *ottaga-tte* / *ottaga-t* / *otka-t* / *ottaga-d* 'take', *ostaga-tte* / *ostaga-t* / *ostka-d* 'buy') to the imperative inflectional stem. Researchers have noted cases in Karelian Proper South Karelian and Livvi-Karelian subdialects of two successive personal suffixes (*kuun*[*n*]*el-go-a-tto* 'listen' [GenA], *ülendä-kkö-ä-de* 'raise' [GenV], *puzerda-kkua*/*aa-tto* 'squeeze' [RjagL]). The use of personal suffixes *-da*, *-de* after a historically weak-grade imperative affix has been recorded in

[138] The 2pl imperative suffix derives from the historical **-käδek* < **-kätek*, in which the loss of spirant has formed a diphthong or a long vowel (Rjagoev 1987: 174).

[139] See chapters 1.6.1 *Opening diphthongs* and 3.2 *Word-stem final vowel alternation*.

Karelian Proper subdialects, whereas the suffixes *-tto ~ -ttö*, *-t*, *-d* (*kandu-a-t* / *kandu-a-tto* 'carry', *kyzy-ä-ttö* 'ask', *sanu-o-d* 'say', *lende-ä-t* 'fly') are used in the corresponding forms in subdialects of Livvi-Karelian. (See Õispuu 1994: 73–74; Atlas: map 157; Programmy: 145.)

The 3sg imperative suffix is *-h* (*eläkkä-h* / *elägä-h* 'let him live', *ottakka-h* / *ottaga-h* 'let him take', *tulga-h* 'let him come'). There are cases in the Karelian Proper South Karelian subdialects in which the affix has changed into a vowel (*eläkkä-ä* / *eläkkö-ö*, *tulga-a*) as with the 3pl indicative forms. The 3sg imperative suffix in Northern and Central Ludic subdialects is *-i* (*elägä-i*, *tulga-i*).

In Karelian Proper and Northern Ludic, the same inflectional forms are used in the 3rd person plural imperative as in the singular. In Livvi-Karelian and its neighbouring Suoyarvi subdialect of Karelian Proper, the 3pl imperative has the distinct suffixes *-hes*, *-hez*, *-heze*, *-häs*, *-haze ~ -häze*[140], which are added to the plural stem that contains a strong-grade passive affix (*otetta-hez*[*e*] / *otetta-haz*[*e*] 'let them take'). The 3pl imperative is formed from the passive stem also in South Ludic, with the personal suffix *-h* following the imperative affix (*tulda-ga-h* 'let them come'). (Õispuu 1994: 74; Adel' 1998: 82–83; Zaikov 2000: 208–220; Programmy: 145.)

In dialect speech, synthetic 2sg and 2pl imperative forms are most common, whereas the 3rd person imperative and the 1pl in particular are expressed via complex structures, e.g. *Davaite heinöä vejämmä tarhah*. 'Let us take the hay to the milking spot.' (Palm), Padany: *Nukko luemma*. 'Let us read' (Adel' 1995: 16), Dyorzha: *An hiän awttaw*. 'Let him/her help.' (Õispuu 1994: 74), South Ludic: *Anda ei tule*. 'May he/she not come.' (Bar). (Anisimov 1948: 106; Palmeos 1962: 61–62; Rjagoev 1977: 146; Barantsev 1985: 163; Adel' 1998: 81–83; Zaikov 2000: 206, 219.) In standard varieties of Karelian the 3rd person imperative and, in the contemporary varieties, also the 1pl imperative are used.

The imperative has five personal forms in normative grammars, with the sole exception of Bubrih's grammar, which does not mention 1pl. Unlike others, Ahtia's grammar distinguishes three numbers in the imperative: the singular, plural, and dual, the latter of which is represented by the 2nd person form and has the suffixes *-kka ~ -kkä*, *-ka ~ -kä*, *-ga ~ -gä* (Ahtia 1938: 75).

The formation of the 2sg imperative in the standard varieties does not differ from that of the dialects. The 2sg imperative is used when an order or suggestion is directed at the recipient, e.g. *Tuo vettä kaivos*. 'Bring some water from the well.' (Anis), *Mäne nyt kotih ta tuo miula vasara!* 'Go home now and fetch me a hammer!' (ZaiK). (Adel' 1998: 76; Zaikov 1999: 82; Zaikov 2002: 90; Zaikov 2013: 176.)

In normative grammars, the 1pl, 2pl, and 2sg forms are formed with the same imperative affixes *-kka ~ -kkä*, *-ka ~ -kä*, *-ga ~ -gä* as in dialects. They are followed by personal suffixes, which together with the imperative affix form particular imperative personal suffixes. In Ahtia's and Anisimov's grammars there are two alternative ways of forming imperatives from single-stem verbs ending with a short vowel: either with the strong-grade variant of the imperative affix (*ot*[*t*]*a-kka-h* 'ottakoon') or the weak-grade variant forming a diphthong (*otto-a-h* / *ottu-a-h*).

One must note the consonant grade in polysyllabic single-stem verbs when consonants precede the geminate imperative affix, as the grade changes according to the dialect. Therefore,

[140] Genetz and Ahtia connect the suffix element *-he* to the imperative affix (Genetz 1885: 168; Ahtia 1938: 82). Leskinen connects the Livvi-Karelian 3pl imperative to reflexive forms, which are typical of this particular main dialect (Leskinen 1967: 256). According to Rjagoev, these forms have developed from complex structures via the use of the optative suffix *-s* (*anna maatah* > *maatahas* > *maatahes*) (Rjagoev 1987: 288, 295).

in the varieties of the common Karelian literary language and standard Livvi-Karelian the weak grade is used (*ota-kkah* 'let him/her take'), whereas Ahtia's and Zaikov's grammars opt for the strong grade (*otta-kkah*).

In all standard varieties of Karelian, 2pl forms are formed by adding *-a* / *-ä* to the imperative affix. It forms a diphthong at the end, as a result of which the 2pl suffixes are *-kua* / *-koa*, *-kkua* / *-kkoa*, *-gua* / *-goa*, *-kiä* / *-keä* / *-kyä*, *-kkiä* / *-kkeä* / *-kkyä*, *-giä* / *-geä* / *-gyä* (*ot*[*t*]*a-kku-a* ~ *otta-kko-a* 'take'). In standard Livvi-Karelian the personal suffix *-tto* ~ *-ttö* (*ota-kkua-tto*) may be added to this form. The personal suffix *-t* is added to the imperative stem ending with *a* ~ *ä* (*otto-a-t* / *ottu-a-t*). 2pl imperative forms are used to express an order or a suggestion to act. The order and suggestion are aimed at a group of people that does not include the speaker, e.g. *Kačokkua, tuas on harakan pezä.* 'Look, there is a magpie's nest there.' (Anis), *Vetäkkyä tämä veneh rantah!* 'Pull this boat to the shore!' (ZaiK). (Adel' 1998: 77; Zaikov 1999: 83; Zaikov 2002: 90; Zaikov 2013: 176.)

The 1pl imperative personal suffix in Ahtia's and Markianova's grammars is *-mmo* ~ *-mmö*. In Ahtia's grammar, the suffix is added directly to the imperative affix (*otta-kka-mmo* / *otto-a-mmo* 'let us take'), whereas in Markianova's grammar there is a diphthong in the imperative suffix (*ota-kkua-mmo*), as is in Anisimov's grammar, which however uses the Karelian Proper personal ending *-mma* ~ *-mmä* (*otta-kkua-mma*). In standard Viena Karelian there is only the imperative affix in the 1pl imperative (*otta-kka*). The 1pl imperative is used to express an order, a request, or a suggestion to act. They are directed at a group of people that includes the speaker, e.g. *Nouska myö nyt kaikki makuamasta!* 'Let us all get up!' (ZaiK). (Adel' 1998: 80; Zaikov 1999: 83; Zaikov 2002: 90; Zaikov 2013: 176.)

All normative grammars of Karelian use the suffixes *-kkah* ~ *-kkäh*, *-kah* ~ *-käh*, *-gah* ~ *-gäh* to form the 3sg (*otta-kka-h* / *ota-kka-h* 'let him/her take'). Ahtia's grammar also mentions the possibility of adding the personal suffix *-h* to an imperative stem containing the weak-grade affix *-a* ~ *-ä* (*ottoa-h*). 3sg and 3pl fall together in the common Karelian literary language, whereas in standard Livvi-Karelian plurals are formed from the passive stem with the affix *-hes*. Ahtia's grammar gives both options to form 3rd person forms. The 3rd person imperative is used to express an order or a suggestion to act, which is directed at a person or a group of people some distance away from the speaker, e.g. *Kirjutakkah hän, kui ollah hänen dielot*. 'Let him/her write how their things are.' (Anis), *Lapset lähtiettähes meččäh hüväl siäl da kompasunke* [*sic*, read *kompasanke*]. 'Let children go into the forest when the weather is good and when they have a compass.' (Mark), *Poika läksi kotih. Mänkäh!* 'The boy went home. Let him go!' (ZaiK). (Adel' 1998: 82–83; Zaikov 1999: 84; Zaikov 2002: 90; Zaikov 2013: 177.)

8.4.3 Conditional

The conditional is a mode expressing a process that has not yet taken place but could be realised under certain conditions. In Karelian, the conditional is formed with distinct affixes, which apart from the 3rd person may be followed by personal suffixes.

The number of conditional tenses in the main dialects of Karelian (Table 56) varies, as does their nomenclature. Genetz mentions conditional forms in Livvi-Karelian, Suoyarvi Karelian Proper, and Ludic subdialects that are formed from both the verb stem (present conditional / imperfect conjunctive) and the active 2nd participle (past participle) (perfect conditional / pluperfect conjunctive)[141] (Genetz 1870: 226; Genetz 1872: 23; Genetz 1885: 165). However, the grammatical description of Karelian Proper mentions only a single simple conditional tense, and a compound tense that is formed with the auxiliary verb *olla* (Genetz 1880: 213).

[141] In the grammar of Ludic, the term is *konditionalin praeriti* [conditional preterite] (Genetz 1872: 23).

Beljakov's grammar distinguishes a single simple conditional, while Palmeos and Rjagoev distinguish the simple present and the perfect compound form, the latter of which is formed with the auxiliary verb *olla* (Beljakov 1948: 71; Palmeos 1962: 59–61; Rjagoev 1977: 140–143). Barantsev and Virtaranta mention two simple conditionals: the present and the perfect, the latter of which is formed with the active 2nd participle. Barantsev reports the compound form and an infrequent compound pluperfect conditional in additional to the simple conditional. (Barantsev 1985: 153–158; Virtaranta 1986: 105.) In *Očerki po livvikovskomu dialektu karel'skogo jazyka* [Studies on the Livvi-Karelian dialect of the Karelian language], Rjagoev distinguishes five conditional tenses (see Rjagoev 1987: 170).

The 1st and 2nd person simple conditionals are formed with the affix *-izi-* (Karelian Proper and Livvi-Karelian), *-isi-* (Viena Karelian dialects of Karelian Proper), or *-iži* (Padany, Porozero, Kotkozero, Rypushkalitsy, Nekkulitsy, Kondushi, Ludic)[142], which is added to the strong-grade verb stem (*tulizin* / *tulizin* / *tuliziin* / *tuližiin* 'I would come'). The first segment of the conditional affix is lost from single-stem verbs ending with the short vowel *a*, *ä*, *o*, *u*, *y* after an unstressed syllable in Karelian Proper, and in any syllable in Livvi-Karelian (excluding Syamozero subdialects, in which the conditional suffix varies) and South Ludic (*anda-zi-n* / *anda-zii-n* / *anta-si-n* / *anda-žii-n* / *andaa-žii-n* 'I would give', *otta-zi-n* / *otta-si-n* / *otta-zii-n* / *otta-ži-n* / *ottaa-žii-n* 'I would take').[143] The original conditional suffix is preserved in Northern Ludic (*anda-iži-n*, *otta-iži-n*). Typically, the affix loses the vowel *i* in Livvi-Karelian and Karelian Proper Suoyarvi and Padany subdialects also after a stem-final diphthong (single-stem verbs ending with a diphthong, two-stem contraction verbs) (*tuo-zi-n* 'I would bring', cf. Karelian Proper: *to-isi-n* / *to-izi-n*). In other Karelian Proper dialects of Russian Karelia, the vowel loss occurs in two-stem contraction verbs (*rubie-zi-n* / *rupie-si-n* / *rupea-si-n* / *rubia-zi-n* / *rubeda-žii-n* [Mikhailovskoye] 'I would begin', cf. Northern, Central, and South Ludic: *rubeda-iži-n*). The first vowel segment of the suffix is retained in single- and two-stem verbs ending with the vowel *e*, although it may become long in some Ludic subdialects. (See Õispuu 1994: 70–71; Adel' 1998: 88–89; Zaikov 2000: 226, 230; Atlas: map 150; Programmy: 141.)

Adding the affix *-izi-* / *-isi-* / *-iži-* prompts the following changes in the final vowel of the verb stem:

– with verbs whose stem ends with a diphthong, the first segment of the opening diphthong is lost in Karelian Proper (*mö-izi-n* / *mö-isi-n* / *mö-iži-n* 'I would sell'), and in Ludic dialects a triphthong is formed (*myö-iži-n*);

– with verbs whose stem ends with *e*, the *e* is lost (*tul-i-zin* / *tul-i-si-n* / *tul-i-ži-n* 'I would come') or, in Ludic dialects, it alternates with *i* (*tuli-iži-n*);

– with verbs whose stem ends with the short vowels *a*, *ä*, *o*, *u*, *y* closing diphthongs ending with *i* are formed in Karelian Proper Viena Karelian and Northern Ludic dialects (*anta-isi-n* / *anda-iži-n* 'I would give').

The conditional affix is followed by personal suffixes. In Karelian Proper, the personal suffixes *-ma* ~ *-mä*, *-ja* ~ *-jä* (*šano-zi-ma* / *sano-zi-ma* / *šano-si-ma* 'we would say') are mostly used in the 1pl and 2pl (*tietä-zi-jä* / *tietä-si-jä* / *tietä-isi-jä* / *tiedä-ži-jä* / *tiedä-zi-ä* 'you would know'). In Karelian Proper South Karelian subdialects, particularly the Border Karelian Karelian Proper subdialects and Ves'yegonsk, Tikhvin, and Dyorzha enclave dialects, geminate suffixes are used (*šano-zi-mma* / *sano-zi-mma* / *šano-zii-mma*, *tiedä-zi-ttä* / *tiedä-zii-ttä*, cf. Livvi-Karelian: *sano-zi-mmo* / *sano-žii-mmo*, *tiedä-zi-ttö* / *tiedä-ži-ttö*, Ludic: *sano-iži-mme* / *sanu-iži-mme* / *sanuo-ži-mme*, *tiedä-iži-tte*). (See Atlas: maps 152–153; Programmy: 141.)

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[142] The conditional affix derives from the Finno-Ugric suffix **-ŋsi*, which has developed in Late Proto-Finnic into **-isi-* (OFUJA: 83; Häkkinen 1985: 111). The first segment **-is-* might derive from frequentative verbs, while the second segment is the imperfect affix *-i-* (see Zaikov 2000: 223–225).

[143] The loss of the first vowel from the conditional affix in Livvi-Karelian and some Karelian Proper South Karelian dialects is due to their phonetic laws according to which the *i* of closing diphthongs is deleted when it precedes a consonant (see Zaikov 2000: 226).

The conditional affix in the 3sg is *-is* / *-iz* / *-iš* / *-iž* (*anda-is* / *anta-is* / *anda-iz* / *anda-iš* / *anda-iž* 'he/she would give', *tul-i-s* / *tul-i-z* / *tuli-is* / *tul-i-š* / *tul-i-ž* / *tuli-iž* 'he/she would come'). The affixes *-s*, *-š*, *-z*, *-ž* occur only in Livvi-Karelian (excluding northern Syamozero subdialects) and the Ludic Mikhailovskoye subdialects, with the exception of verbs whose stem ends with *e*) (*anda-z* / *anda-s* / *anda-š* / *anda-z*, yet *tul-i-s* / *tul-i-z* / *tul-i-š*). In Suoyarvi subdialects the affix *-zi* may also occur (*anda-zi*, *tul-i-zi*). (See Õispuu 1994: 71–72; Atlas: map 151; Programmy: 141.) Adding the suffixes *-is* / *-iz* / *-iš* / *-iž* causes the following changes on the morpheme boundary:

– the formation of closing diphthongs in Karelian Proper (*mö-is*) and triphthongs in Ludic (*myö-iš* / *myö-iž* 'he/she would sell') in monosyllabic verbs; with two-stem contraction verbs the first segment of the diphthong may be either lost (*rube-is* 'he/she would start') or retained (*tahkua-is* 'he/she would grind');

– the loss of the vowel *e* or its change into *i* in single- and two-stem verbs in all main dialects (*tul-i-s* / *tul-i-z* / *tuli-is* / *tuli-iž* / *tuli-iš* 'he/she would come');

– the formation of diphthongs ending with *i* in verbs whose stem ends with the short vowels *a*, *ä*, *o*, *u*, *y* in Karelian Proper and Livvi-Karelian (*otta-is* / *otta-iž* / *otta-iš* 'he/she would take').

The 3sg has a distinct conditional affix with no personal suffix. The historical form of the conditional suffix, **-isi*, explains why the affix is added to the strong stem.

The 3pl is formed by adding the same shorter conditional affixes to the passive stem as with the 3rd person (Karelian Proper: *anneta-is* / *annetta-isi* 'they would give', *oššetta-is* / *oššeta-iz* / *osseta-is* / *ossetta-is* 'they would buy'; Livvi-Karelian: *anneta-s* / *anneta-z*, *ostetta-s* / *ostetta-š*; Ludic: *andeta-iš* / *antta-iš* / *anta-iž*, *ostetta-iz* / *osteta-iž* / *ostetta-z* / *osttaa-ž*). (See Atlas: map 154; Programmy: 141.) These examples demonstrate how it has become possible to use the weak-grade passive stem due to the influence of the closed syllable's position.

Synthetic conditional tenses are a feature of Livvi-Karelian and Ludic that connects them to the Veps language, while such forms are alien to Karelian Proper. They are formed in Livvi-Karelian with the affixes *-(n)nuzi-* ~ *-(n)nyzi-*, *-(n)nuži-* ~ *-(n)nyži-*, *-nus* ~ *-nys*, *-nuz* ~ *-nyz*, *-nuš* ~ *-nyš*, and in Ludic with *nuiži-* ~ *-nyiži-*, *-nuži-* ~ *-nyži-*, *-nuiš* ~ *-nyiš*, *-nuiž* ~ *-nyiž*, *-nuš* ~ *-nyš*, *-nuž* ~ *-nyž* (Livvi-Karelian: *osta-nuzi-n* / *osta-nnuzi-n* 'I would have bought', Ludic: *osta-nuži-n* / *osta-nuiži-n* / *osta-nuižii-n* / *osta-nuzi-n*). This form spread from Livvi-Karelian to the Karelian Proper Suoyarvi subdialects and southern Myandusel'ga and Porozero subdialects. A distinct affix, it has formed from the active 2nd participle affix and the conditional affix. The 3pl is formed from the passive stem by using the same shorter affix as with the 3sg forms. In Livvi-Karelian subdialects, the 3pl form may be formed from the passive 2nd participle while adding the conditional suffix *-s* / *-z* (Livvi-Karelian: *lähtietty-s* / *lähtietty-š* / *lähtietä-nnys*, Ludic: *lähtä-nyž* / *lähtedä-nnyiž* / *lähtedä-nnuz* 'they would have left'). These new conditionals have likely formed in Livvi-Karelian and Ludic due to the influence of Veps. (See Rjagoev 1987: 171; Zaikov 2000: 234; Zaitseva 2001: 149; Atlas: map 155; Programmy: 143.)

In Livvi-Karelian, geminate affixes occur in the 1sg and 2sg of monosyllabic single-stem verbs (*soa-nnuzi-n* 'I would have received'). In other instances, a single-consonant affix is used (*anda-nuzi-n* 'I would have given'). With two-stem verbs the affix is added to the consonant stem, causing the final consonant to assimilate. The 3pl forms use an affix which has a single *n* only in mono- and polysyllabic single-stem verbs (*soada-nus* 'they would have received', *anneta-nnus* 'they would have given').

Conditional compound tenses are formed with the auxiliary verb *olla* in the conditional, inflected according to person, and the active 2nd participle main verb. In the 3pl, the main verb is in the passive (or active) participle form. In Karelian Proper, there is a single compound form that researchers have called either a perfect or a pluperfect (*olizin* / *olisin* / *oliziin tullun* /

tullut 'I would have come'). In Karelian Proper South Karelian dialects it is possible to use the shorter auxiliary personal forms: *oiziin* / *oizin*, *oiziit* / *oizit*, *ois'*, *oizima* / *oizimma*, *oizija* / *oizitta*. In Livvi-Karelian and Ludic, the auxiliary verb personal forms may be formed using either variant, e.g. Livvi-Karelian: *olizin tulluh*, *olluzin tulluh*; thus, two conditional compound tenses may be distinguished: the perfect and the pluperfect. (See Rjagoev 1987: 172, 302; Adel' 1998: 90; Zaikov 2000: 238–246.)

According to researchers of the Karelian language, conditional compound tenses are infrequent in dialect speech. The full conditional tense paradigm is not distinct in Livvi-Karelian and Ludic in terms of its use. Either the imperfect or the perfect may be used in the same context. When an event has taken place a long time ago in the past, the pluperfect is used. (Zaikov 2000: 234–235.)

The conditional affixes in Bubrih's, Anisimov's, and Ahtia's grammars are *-zi-*, *-s*, and with verbs that have a stem ending with *e* the affix is *-izi-*, *-is*, added to the strong-grade vowel stem. The affixes are used to form the 3rd person, and in plural they are added to the strong-grade passive stem. The 1pl and 2pl use the same personal suffixes as the present indicative, as in Livvi-Karelian. Anisimov's and Ahtia's grammars differ from that of Bubrih's, which describes only a single conditional tense, in that they use also the perfect conditional, with the suffixes *-nuzi-* / *-nyzi-*, *-nus* / *-nys*. With two-stem verbs the suffixes are added to the consonant stem, which leads to either progressive or regressive assimilation. The 3rd person perfect conditional is formed in this case by adding the same suffixes to the passive stem as in the singular. However, in Ahtia's grammar it is possible to use a geminate consonant suffix *-nnUs* after an unstressed syllable, which weakens the passive stem geminate *tt*. It also allows forming the 3pl perfect from the passive 2nd participle by adding to it the conditional suffix *-s*. Anisimov's grammar also mentions the possibility of forming a past compound tense (*olizin lugenut* 'I would have read'). (Bubrih 1937: 61; Ahtia 1938: 76–77, 81; Anisimov 1939: 121–122.)

In standard Livvi-Karelian there are four conditionals: the present, imperfect, perfect, and pluperfect conditional. The present conditional is formed with the suffixes *-zi-*, *-s*, and *-izi-*, *-is* with verbs whose stem ends with *e*. The imperfect conditional suffixes are *-(n)nuzi* ~ *-(n)nüzi*, *-(n)nus* ~ *-(n)nüs*. The geminate form is used with mono- and polysyllabic single-stem verbs in the 1st, 2nd, and 3rd person, and also with the 3pl of disyllabic single-stem and two-stem contraction verbs. Adding a suffix that being with a geminate weakens the verb or passive stem in the 3rd person. In other instances the single-stem affix variant is used, and it causes assimilation in two-stem verbs. Conditional compound tenses are formed with the auxiliary verb *olla*, which is either in the present or imperfect conditional, e.g. perfect conditional: *olizin ottanuh* 'I would have taken', *olis ottanuh* 'he/she would have taken', *oldas otettu* 'they would have taken'; pluperfect conditional: *olluzin peittänüh* 'I would have hidden', *ollus peittänüh* 'he/she would have hidden', *oldanus peitettü* 'they would have hidden'. (Markianova 2002: 130–140.)

Grammars of standard Viena Karelian describe two conditional tenses called the imperfect and pluperfect conditionals, which is explained by the use of imperfect personal suffixes rather than present ones. With single-stem verbs the conditional suffix *-si-* is usually used in the 1st and 2nd person, whereas with other verb types the suffix is *-isi-* and in the 3rd person *-is*. Adding conditional suffixes beginning with *i* causes the loss of the stem-final vowel *e*, and also the loss of the first segment of a diphthong with monosyllabic verbs. Affixes are added to the strong-grade vowel stem or to the weak passive stem. The pluperfect conditional is formed analytically with the imperfect conditional personal forms of the verb *olla* and with the active/passive 2nd participle of the main verb. The 3rd person forms of the auxiliary verb fall

together in the singular and plural, unlike in standard Livvi-Karelian, e.g. *olisin kaččon* 'I would have watched', *hiän olis kaččon* 'he/she would have watched', *hyö olis kačottu* 'they would have watched'. (Zaikov 1999: 80–82; Zaikov 2002: 82–83; Zaikov 2013: 178–183.)

The conditional is used to express an action that is propositional, desired, or possible in the present, past, or future, and also a suggestion or a non-categorical statement, e.g. *Andazit miulla kniigan — olis hyvä, lähtizin kodih*. 'It would be good and I would go home if you gave me the book.' (Bubr), *Lapset lähtiettäs meččäh, ku rodies hüvä siä*. 'The children would go into the forest if the weather were good.' (Mark), *Čikko karttuais villat, jos hänellä olis oltu kartat*. 'The sister would card wool if she had a card.' (ZaiK), *Minä lugizin sen kirjan, ku vai löüdäzin kustah*. 'I would read the book if only I could find it somewhere.' (Pyöl). (Anisimov 1948: 104–106; Adel' 1998: 87; Markianova 2002: 129; Zaikov 1999: 80; Zaikov 2002: 82, 84; Pyöli 2013: 95; Zaikov 2013: 178.)

8.4.4 Potential

The potential mood expresses possibility and likeliness. Of all Finnic languages, only the Karelian and Finnish languages and the North Veps dialect have retained the grammatical potential mood as a living grammatical category. Its geographic distribution in Karelian is rather wide; however, according to research, it has practically fallen out of use in Karelian Proper South Karelian dialects, particularly in the enclave dialects (Palmeos 1962: 58–59; Rjagoev 1977: 139; Zaikov 2000: 246–247). The dialect atlas of the Karelian language and analysis of the data contained in the dialect gathering programme booklets show that the potential is rather uncommon in Karelian Proper Viena Karelian dialects as well.

The potential mood has two tenses in Karelian: the present and perfect; however, perfect forms are rather unproductive (see Table 58).

The potential affixes in all Karelian dialects are *-ne-*, *-nne*, *-no- ~ -nö-*, *-nno- ~ -nnö-*,[144] to which personal suffixes are added (*anda-no-u* / *anda-nno-u* / *anda-no-o* give-PRES.POT.3SG, *ošta-no-u* / *ošta-nno-u* / *osta-no-u* / *osta-no-o* buy-PRES.POT.3SG). The geminate affix occurs mostly in Livvi-Karelian, in single-stem verbs that end with a diphthong and in polysyllabic single-stem verbs (*syö-nne-n* eat-PRES.POT.1SG, *murenda-nne-n* break-PRES.POT.1SG). The latter case has spread also to Karelian Proper Viena Karelian dialects (*kačohta-nne-n* glance-PRES.POT.1SG). Use of the geminate affix *nn* is typical of all single-stem verbs in Karelian Proper South Karelian enclave dialects (*šyö-nne-n*, *anda-nne-n* give-PRES.POT.1SG). In other cases and dialects a single consonant affix is used, and it is added to the consonant stem of two-stem verbs, warranting regressive or progressive assimilation (*tul-le-n* come-PRES.POT.1SG, *ruven-ne-n* begin-PRES.POT.1SG), except for Ludic (*tul-ne-n*, *avaidan-ne-n* open-PRES.POT.1SG). The potential affix ending with *o*, *ö* is used in the 3sg due to the influence of the personal suffix. (See Adel' 1988: 92–93; Zaikov 2000: 246–250; Atlas: map 148; Programmy: 137.)

The 3pl potential is formed from the passive stem, to which affixes are added. They are followed by the personal suffix *-h* (*annetta-nne-h* / *anneta-nne-h* / *annetta-ne-h* / *anneta-ne-h* give-PRES.POT.3PL, *otetta-nne-h* / *oteta-nne-h* / *otetta-ne-h* / *oteta-ne-h* take-PRES.POT.3PL). Geminate suffixes are typical of Livvi-Karelian, except for single-stem verbs ending with a diphthong, and Karelian Proper enclave dialects. Barantsev mentions a suffix beginning with the geminate *nn* in his description of the South Ludic dialect, and this affix is likely an influence of the neighbouring Livvi-Karelian dialects. In northern dialects of Ludic and southern Karelian Proper Myandusel'ga and Suoyarvi subdialects, the 3rd person is formed from the passive stem with singular personal suffixes, which are added to the potential affixes *-no- ~ -nö-*, *-nno- ~ -nnö-* (*antta-no-u* / *andetta-no-u*). (See Atlas: map 149, Programmy: 139.)

[144] The potential affix derives from the Finno-Ugric suffix **-ne* (OFUJA: 83; Häkkinen 1985: 110).

Apart from some rare exceptions, potential affixes do not cause the final consonants of single-stem verbs or the passive stem to weaken, as the affix has originally contained only a single consonant.

The perfect potential is formed with the personal suffixes of the auxiliary verb *olla*, which in most dialects receives the stem *liene-* (*lienö-*), although it is possibly to use the potential form *olle-* (*ollo-*) in Karelian Proper South Karelian dialects and southeastern Livvi-Karelian dialects (Nekkulitsy, Kotkozero, Rypushkalitsy) The perfect potential auxiliary verb is followed by the active or passive 2nd participle main verb (*lienen* / *ollen* / *liennen tullun* / *tulluh* / *tulnu* be-PRES.POT.1SG come-PERF.POT.1SG, *lienöy* / *ollou* / *ollow* / *lienne* / *liene tuldu* / *tultu* be-PRES.POT.3SG come-PERF.POT.3PL). (See Rjagoev 1987: 302; Adel' 1988: 94–95; Zaikov 2000: 256.)

Grammars of the common literary language and standard Viena Karelian (see Table 59) use the single-consonant affixes *-ne-*, *-no-* ~ *-nö-*, the adding of which does not prompt changes in the stem consonants (Bubrih 1938: 60; Anisimov 1939: 120–121; Zaikov 2002: 85–86; Zaikov 2013: 184–185). Zaikov's grammar from 1999, written in Russian, describes the use of geminate potential affixes after the third syllable (*kavotta-nne-n* lose-PRES.POT.1SG, *kavotta-nno-u* lose-PRES.POT.3SG, *hyö kačotta-nne-h* watch-PRES.POT.3PL) (Zaikov 1999: 78–79), but in later school grammars they are merged to the affixes *-ne-*, *-no-* ~ *-nö-*.

Ahtia's and Markianova's grammars mention the possibility to use geminate suffixes after a syllable with primary or secondary stress, i.e. in single-stem verbs with a mono- or polysyllabic stem, and in the 3pl in trisyllabic passive inflectional stem of one- and two-stem verbs. In such cases, the consonant segment in the stem is subject to gradation. (Ahtia 1938: 76, 81; Markianova 2002: 141–143.)

Only the more recent grammars describe forming the perfect potential from the potential personal forms of the verb *olla*, which in standard Viena Karelian receives the stem *liene-*, *lienö-*, and from the active or passive 2nd participle, e.g. Karelian Proper: *lienen luken* be-PRES.POT.1SG read-ACT.PTCP2; *hiän lienöy luken* PRON.3SG be-PRES.POT.3SG read-ACT.PTCP2; *hyö lienöy luvettu* PRON.3PL be-PRES.POT.3SG read-PAS.PTCP2 (Zaikov 2002: 86); Livvi-Karelian: *ollen elostannuh* be-PRES.POT.1SG play-ACT.PTCP2; *ollou elostannuh* be-PRES.POT.3SG play-ACT.PTCP2; *oldaneh elostettu* be-PRES.POT.3PL play-PAS.PTCP2 (Markianova 2002: 144). In addition, Pyöli's grammar uses both potential stems of the verb *olla*: *liene-* (*lienö-*) and *olle-* (*ollo-*) (Pyöli 2013: 107).

The potential mood characterises an action as possible, acceptable, or uncertain, e.g. *Andanet miulla kniigan — lienöy hyvä.* 'It would be good if you gave me a book.' (Bubr), *Lienöykö ihmiset syöty ennein tervehellistä ruokua, no läsittih vähän.* 'Perhaps people ate healthier food in the past; at least they fell ill less often.' (ZaiK). *Dielo sellinnöü tänäpäi.* 'The matter will probably get resolved today.' (Pyöl). The potential is often used in interrogative sentences, e.g. *Voinetko sie lähtie miun kera?* 'Could you go with me?' (ZaiK), *Midä itkenöü tuuli ikkoin al... Kedä vuottanou? Midä tuskanneh?* 'Why is the wind crying under the window… For whom is it waiting? What might its ailment be?' (Mark). (Bubrih 1937: 60–61; Anisimov 1939: 120; Barantsev 1985: 158; Adel' 1998: 92; Markianova 2002: 141; Zaikov 1999: 78–80; Zaikov 2002: 85–87; Pyöli 2013: 104; Zaikov 2013: 184.)

8.5 Connegative verb

Negation is the element of meaning which expresses that in the speaker's opinion the connection established between the components of the sentence does not exist (LÈS). Karelian uses various morphological, lexical, and syntactic means of expressing negation, such as the abessive case, negative adpositions, adverbs, particles, constructions containing a 3rd infinitive abessive, etc. Negative compound verb forms are the most common means of expressing

negation. They are formed with the connegative verb *ei*.[145] It receives the same personal suffixes as the present[146] affirmative forms, and the 3sg and 3pl fall together. (See Atlas: map 158.) The connegative verb *ei* is inflected as follows:

	singular	**plural**		
		Karelian Proper	Livvi-Karelian	Ludic
1st person	*en*	*emmä*	*emmo / emmö*	*emme / em*
2nd person	*et / ed*	*että*	*etto / ettö*	*ette / et*
3rd person	*ei*	*ei*	*ei*	*ei*

The same connegative verb forms are used in the different tenses and moods, with the exception of the imperative. The tense or mood is conveyed by the form of the main verb.

In the present indicative, the connegative verb is followed by the main verb stem, i.e. what remains once the present indicative 1st person suffix is removed (*en ota* 'I will not take', *ei ota* 'he/she will not take'; *en tule* 'I will not come', *ei tule* 'he/she will not come').[147] Polysyllabic single-stem verbs have a weak stem in the present tense, unlike two-stem contraction verbs. The weak grade is due to the historical present affix **-k*, which has closed the final syllable of the stem and has thus weakened the consonant element in the stem. The later loss of the affix has not altered the stem.

Present 3rd person negatives are formed from the weak passive stem, which is what remains once *-h* is deleted from the corresponding affirmative verb form (*ei oteta* 'will not be taken', *ei tulla* 'will not come'). In Karelian Proper South Karelian dialects (excluding Border Karelian dialects and enclave dialects of Inner Russia) the diphthong *oa* / *ua*, *eä* / *iä* or a long vowel *aa*, *ää* may occur at the end of this form (Reboly: *ei ammuttua* 'will not shoot', Padany: *ei annettua* 'will not give') (Zaikov 2000: 142–143).

In the imperfect, the connegative verb is followed by the active 2nd participle in the nominative (*en ottan* / *ottanuh* / *ottanu* 'I did not take', *ei ottan* / *ottanuh* / *ottanu* 'he did not take', *en tullun* / *tulluh* / *tulnu* 'I did not come', *ei tullun* / *tulluh* / *tulnu* 'he/she did not come'), and the passive 2nd participle in the 3pl (*ei otettu* 'they did not take', *ei tuldu* / *tultu* 'they did not come').[148]

The negative perfect is formed from the corresponding negative present forms of the verb *olla* and the active 2nd participle (*en ole ottan* / *ottanuh* / *ottanu* 'I have not taken', *en ole tullun* / *tulluh* / *tulnu* 'I have not come'), and in the 3pl from the passive 2nd participle (*ei ole otettu* 'they have not taken', *ei ole tuldu* / *tultu* 'they have not arrived'). Correspondingly, negative imperfect forms of *olla* are used in the pluperfect (*en ollun ottan* / *ottanuh* / *ottanu* 'I had not taken', *ei oldu* / *oltu otettu* 'they had not taken', *en ollun tullun* / *tulluh* / *tulnu* 'I had not come', *ei oldu* / *oltu tuldu* / *tultu* 'they had not come') (See Genetz 1880: 221; Genetz 1884: 178; Bubrih 1937: 62–63; Ahtia 1938: 82–83; Anisimov 1948: 113–114; Beljakov 1948: 74–75; Palmeos 1962: 55, 57, 58; Manžin 1964: 58–60; Rjagoev 1977: 126–128, 134–136; Barantsev 1985: 144, 148, 150–153; Rjagoev 1987: 329–331; Virtaranta 1986: 105; Õispuu 1994: 40–42; Adel' 1998: 68; Zaikov 1999: 71–78; Zaikov 2000: 138–157, 160, 167; Markianova 2002: 114, 121, 123–125; Zaikov 2002: 79–80; Pyöli 2013: 83–92; Zaikov 2013: 153–167.)

[145] The connegative verb in Karelian derives from Proto-Uralic (OFUJA: 85).

[146] See chapter 8.2 *Personal forms of verbs*.

[147] The connegative verb is usually followed by the main verb, but in dialects an inverse word order is possible (except for Karelian Proper Viena Karelian dialects), e.g. *Kinoh et lähte.* 'You will not go to the cinema.' (see Zaikov 2000: 139–140).

[148] On the formation of the active and passive 2nd participle see chapters 8.8.5 *Active 2nd participle* and 8.8.7 *Passive 2nd participle*.

In dialects, *i* may be lost from the connegative verb *ei* in the 3rd person when the main verb begins with a vowel, especially in conjunction with the frequently-used verb *olla*. It has led into such contraction forms as *e' olluh*, *eule* / *ewle* / *evle*, *eulun* / *ewlun* / *evlun*, *euldu* / *ewldu* / *evldu*, *ev*, *joolu*, etc. (Genetz 1880: 221; Genetz 1884: 178; Rjagoev 1977: 136; Zaikov 2000: 143.)

Negative imperatives are formed with suppletive forms based on various stems, as particular personal verb forms of the connegative verb *ei* are used in the imperative, followed by finite imperative forms of the main verb (see Atlas: map 163). In plural negatives and 3sg, the main verb always ends with *oi* / *ai* / *uoi* in Northern Ludic dialects, unlike their affirmative counterparts (Northern Ludic: *elgai* / *elgam* / *elgat peskoi* / *salbakkoi* 'let him/her not wash / close; let us wash / let us close; do not wash / do not close', Central Ludic: *elgai* / *elgatt olguoi* / *olgai* 'let him/her not come / do not come').

The most pronounced difference between the dialects of Karelian, apart from personal suffixes[149], is the phonetic form of the negative form in the imperative. In Karelian Proper the word-initial vowel is *e*, in Livvi-Karelian and Border Karelian Karelian Proper dialects it is *ä*, and in Ludic dialects either variant is possible; Mikhailovskoye even features such forms as *alguo*, *auguo* (see also Õispuu 1994: 36–37; Adel' 1998: 84–85). In Karelian Proper and Livvi-Karelian the connegative verb contains front vowels in the imperative, while in Ludic dialects (apart from South Ludic) it contains back vowels.

In normative grammars of Karelian, negation in the imperative is expressed with a connegative verb that is inflected in person and number and followed by the affirmative personal forms of the main verb. Table 61 illustrates how only in standard Viena Karelian connegative verb forms begin with *e* in the imperative. Grammars of the common literary languages opted for the Livvi-Karelian variant.

Negative conditionals are formed from the personal forms of the connegative verb and the 3sg or 3pl of the main verb (*en tulis* / *tuliz* / *tuliš* / *tuliis* / *tuliiž* / *tuliiš* 'I would not come', 3pl: *ei tuldais* / *tultais* / *tuldas* / *tuldaz* / *tuldaš* / *tuldaiš* / *tuldaiž* 'they would not come'; Livvi-Karelian, Ludic: *en tullus* / *tulluz* / *tulluš* / *tulnuiš* / *tulnuž*, *ei tuldanus* / *tuldanuz* / *tuldanuš* / *tuldanuiš* / *tuldanuž*). The conditional compound form features the verb *olla* and the active or passive 2nd participle of the main verb (*en olis* / *oliz* / *oliis* / *ois'* / *oliiž* / *oliiš tullun* / *tullut* / *tulluh* / *tulnu* 'I would not have come', 3pl: Karelian Proper: *ei olis* / *oliz* / *oliis* / *oliž* / *oliš tuldu* / *tultu* 'they would not have come', Livvi-Karelian, Ludic: *ei oldas* / *oldaiš tuldu*; Livvi-Karelian, Ludic: *en ollus* / *olluz* / *olnuiš* / *olnuž tulluh* / *tulnu*, *ei oldanus* / *oldanuz* / *oldanuiš* / *oldanuž tuldu*). (Genetz 1880: 221; Genetz 1884: 124–125; Bubrih 1937: 62; Ahtia 1938: 89–90; Anisimov 1939: 123–125; Anisimov 1948: 115–116; Palmeos 1962: 60; Manžin 1964: 61–62; Rjagoev 1977: 142, 143; Barantsev 1985: 155–158; Rjagoev 1987: 332–334; Virtaranta 1986: 105; Adel' 1997: 89–91; Zaikov 1999: 81–82; Markianova 2002: 131–140; Zaikov 2002: 82–84; Pyöli 2013: 97–104; Zaikov 2013: 179–183.)

The present potential negative form comprises the personal form of the connegative verb and the potential mood inflectional stem (*en kuččunne* / *kučču*ne 'I am likely not to invite', 3sg: *ei kučču*nne / *kučču*ne 'he/she is likely not to invite', 3pl: *ei kučuttanne* / *kučuttane* / *kučutanne* 'they are likely not to invite'). (See Genetz 1880: 221; Genetz 1884: 179; Bubrih 1937: 62–63; Ahtia 1938: 83, 89–90; Anisimov 1939: 123–125; Anisimov 1948: 115; Manžin 1964: 62; Barantsev 1985: 159; Rjagoev 1987: 331–332; Adel' 1998: 93–95; Zaikov 1999: 79–80; Zaikov 1999: 79–80; Zaikov 2000: 249, 256; Markianova 2002: 143–144; Zaikov 2002: 86–87; Pyöli 2013: 107–108; Zaikov 2013: 185–187.)

[149] See chapter 8.4.2 Imperative.

8.6 Passive

The passive is a morphologically derived verb voice with an indefinite-personal meaning. The passive suffixes in Karelian dialects are *-tta- ~ -ttä-*, *-ta- ~ -tä-*, and, apart from Viena Karelian, also *-da- ~ -dä-*. The affix *-tta- ~ -ttä-* is added to the stem single-stem and polysyllabic verbs that end with a vowel. This prompts gradation in the stem and stem-final vowels are replaced by *e*[150] (*ote-tta-* from the stem *otta-* of *ottua* / *ottoa* / *ottaa* / *ottada* 'to take'). The passive affixes *-da- ~ -dä-*, *-ta- ~ -tä-* are added to the passive stem of single-stem verbs ending with a diphthong (*myö-dä-* / *myö-tä-* from *myyvä* / *myvvä* / *myödä* 'to sell') and to the consonant stem of two-stem verbs (*tul-da-* / *tul-ta-* from *tulla* / *tulda* 'to come', *ruvet-ta-* from *ruveta* / *rubeta* 'to begin to do smth'). Passive forms of single-stem verbs ending with *e* show traces of the historical weak-grade passive variant (*lähti-e-* < **lähte-δä-* from *lähtie* / *lähtiä* / *lähtedä* 'to leave'). In some dialects these verbs have two consecutive passive affixes (*lähti-e-ttä-*) (contamination forms: *lähti-e-ttä-*).

The passive affix is added to the inflectional stem (passive stem), and it is followed by tense and mood affixes, personal suffixes, and participle affixes. The passive typically has a single personal form, which falls together with the 3pl in terms of its form, four tenses, four moods, and two participles. These forms cause phonetically regular consonant gradation in the passive stem, e.g. pres. ind. *ote-tta-* : *ote-ta-h* 'is taken'. This explains how the passive stem of single-stem verbs ending with a diphthong and two-stem verbs and the 1st infinitive have fallen together in Karelian Proper and Livvi-Karelian, which typically feature qualitative gradation (e.g. *tul-la-h* 'they are coming' from *tulla* 'to come'). The vowel in the passive affix may change, e.g. in the imperfect indicative it is deleted (*ote-tt-i-h* 'was taken'). (Genetz 1884: 166–168; Ahtia 1938: 80; Palmeos 1962: 63–65; Manžin 1964: 63–64; Rjagoev 1977: 123; Rjagoev 1987: 289–291; Õispuu 1994: 76–81.)

As the passive voice forms are used in the Karelian language to form 3pl verb forms, the passive conjugation paradigm will not be analysed in detail in this chapter. For more information on passive mood and tense forms, see chapters on the formation of the 3rd person verb forms.

The passive expresses action in which the actor is not made explicit, e.g. *Ana händä nagretah.* 'Let him be laughed at.' (Palm), *Koissa paissetah kalakukkuo.* 'A *kalakukko* is being baked at home.' (ZaiK), *Heijän muuzikkua puaksuh kuunnellah.* 'Their music is listened to often.' (Pyöl).

Grammars of the contemporary standard varieties of Karelian do not detail the use of the passive voice, as one of the functions of the 3rd person plural is to express action that has to do with an unspecified group of people, with the exception of Pyöli's grammar of standard Livvi-Karelian, in which passive verb forms are analysed in their respective chapter (Pyöli 2013: 72–73).

8.7 Reflexive verb forms

Reflexive verbs express action in which the actor directs the action at itself, thus being both the subject and the object of the action (Ahmanova 2007: 82).

Reflexivity is conveyed in Karelian with reflexive deverbal and denominal derivational affixes, such as *-(u)du ~ -(y)dy*, *-(u)tu ~ -(y)ty*, *-u ~ -y*, *-vu ~ -vy*, etc. (e.g. *kiändyö* / *keändyö* / *keäntyö* / *kiändydä* 'to turn') (Zaikov 1999: 108). Karelian also features reflexive derivational suffixes deriving from **-te*, which has likely formed from the reflexive pronoun *iče* 'self'. In

[150] See chapter 3.4 *Other stem-final vowel alternations*.

Karelian, as is the case with the Veps and Ingrian languages and the Eastern Finnish dialects, reflexive derivational affixes can be added to the verb in two ways. In Karelian Proper, Northern and Central Ludic, and infrequently also in Livvi-Karelian subdialects, the reflexive derivational affixes *-(V)tte*, *-te*, *-(V)čče*, *-če*, *-ze* are added to the verb stem. The reflexive derivational affix is followed by mood and tense affixes and personal suffixes, e.g. Padany: *pezie-te-n* 'I wash myself', Reboly: *peže-te-n*, Shuyezero: *kumardoa-če-n* 'I bow', Tikhvin: *istuo-če-n* 'I sit down', Tolmachi: *pezie-če-n* 'I wash myself', Kestenga: *istuo-te-n*, *kumartoa-če-n*, Impilakhti: *laskei-če-n* 'I lower myself', Northern Ludic: *peze-ze-n*, Central Ludic: *ište-ze-n*. (See Genetz 1872: 23; Genetz 1880: 234; Genetz 1884: 182; Rjagoev 1977: 147; Adel' 1998: 122.) These are derivational forms. Reflexive verbs with a reflexive stem that has been formed with derivational affixes subject to consonant gradation are inflected the same as other verbs. For this reason their inflection is detailed in conjunction with the general conjugation paradigm.

Livvi-Karelian and southern Ludic subdialects (South Ludic, Mikhailovskoye) typically feature a particular means of expressing reflexivity morphologically, called reflexive inflection, with a group of personal suffixes. The reflexive 1st infinitive ends with *-kseh* / *-kšeh* / *-kse*. In reflexive conjugation, the reflexive derivational suffix is located at the end of the word, after particular personal suffixes (Genetz uses the now-obsolete term *itsekohtainen käytelmä* instead of *refleksiivitaivutus* for reflexive conjugation). The derivational affix and personal suffixes together form reflexive personal suffixes. Person and number are formed with the same verb stems as in regular conjugation and the same imperfect, imperative, conditional, and potential affixes.

Livvi-Karelian has the most complete reflexive conjugation paradigm. Distinctively, its conjugation forms contain more than one reflexive affix. Reflexive conjugation that combines elements from Livvi-Karelian and Veps is also featured in South Ludic and Mikhailovskoye dialects, and also in imperfect forms in Northern Ludic. Although contemporary Karelian Proper lacks reflexive conjugation, early dialect descriptions and Karelian language samples evince that it has been part of this main dialect as well in the past. Reflexive conjugation in Karelian Proper transitional and South Karelian dialects differs significantly from that of Livvi-Karelian and Ludic. (See Genetz 1870: 230; Genetz 1880: 234; Anisimov 1948: 117; Barantsev 1985: 182; Rjagoev 1987: 352; Adel' 1998: 123–128; Bogdanova 2003: 175–178.) In addition, some subdialects feature hybrid forms, in which a single word form contains both inflectional and derivational reflexive affixes simultaneously, in which case reflexive personal suffixes are added to a reflexive stem, e.g Padany: *kumardelia-te-mma-že* 'I bow' (Genetz 1880: 234).

Reflexive conjugation personal suffixes are added to the verb stem, and in 3pl to the passive stem. Reflexive inflection 1st and 2nd person suffixes in Livvi-Karelian, South Ludic, and Suoyarvi dialects are *-(m)mos* ~ *-(m)mös*, *-(t)tos* ~ *-(t)tös*; the less frequent ones are *-(m)moh* ~ *-(m)möh*, *-(t)toh* ~ *-(t)töh* (*kumarda-(m)mos* / *kumarda-(m)moh*, *kumarda-(t)tos* / *kumarda-(t)toh from kumarduakseh* 'to bow'). Padany subdialect features the suffixes *-mmaže* ~ *-mmäže*, *-ttaže* ~ *-ttäže*; in the Reboly dialect they are *-mmeh*, *-tteh*. The Ludic Mikhailovskoye dialect features the suffix variants *-muo*, *-muu*, *-tuo*, *-tuu* (*kumarda-muu*, *kumarda-tuu*), whereas Northern Ludic has the suffixes *-moi*, *-toi* (*kumarda-moi*, *kumarda-toi*). Karelian Proper dialects feature the suffixes *-mmačči* ~ *-mmäčči*, *-mačče* ~ *-mäčče*, *-ttačči* ~ *-ttäčči*, *-tačče* ~ *-täčče*, which correspond to the forms in Livvi-Karelian and Ludic. According to the dialect atlas of the Karelian language, these forms occur in the Maslozero and Poduzhemye dialects and Panozero and Vychetaybola subdialects (e.g. Poduzhemye: *kumardelie-mačči*, Maslozero: *rodie-mačči*, Vychetaybola: *kuču-mačči*). These affixes have formed as the reflexive derivational affixes *-s* / *-z*, *-že* / *-še* / *-si*, *-h*, *-čči* have been added to

personal suffixes that occur in their historical form that has retained the final vowel, which has caused them to fall together with the 1pl and 2pl suffixes.[151] (See Bogdanova 2003: 51–65; Atlas: map 164; Programmy: 155–159.)

The 3rd person reflexive personal suffix is widely spread in Karelian dialects, which in Karelian Proper takes the form *-kši* / *-ksi*, *-kše* / *-kse*, *-kš* / *-ks* (Maslozero, Poduzhemye, Panozero, Shuyezero, Tunguda, Padany) (*kumardua-kše* / *kumardua-kse*), in which *k* is a retained present tense affix (< **-ksen*); in some dialects it is also *-h* (Padany, Voknavolok, Ukhta). In Livvi-Karelian and Ludic dialects the personal suffix is *-h* (Syamozero, Nekkulitsy, Rypushkalitsy), *-hes* (Vedlozero), *-heze* / *-haze* (Kotkozero, South Ludic, Mikhailovskoye), *-he* (Northern and Central Ludic, Mikhailovskoye), *-ze* (Mikhailovskoye), (*kumarda-h* / *kumarda-hes* / *kumarda-ze*). (See Bogdanova 2003: 65–73; Atlas: map 165; Programmy: 155–159.)

1pl and 2pl are formed in Livvi-Karelian, South Ludic, and the Suoyarvi dialect with the affixes *-(m)mokseh* ~ *-(m)mökseh*, *-(t)tokseh* ~ *-(t)tökseh*, in Northern Ludic with *-mois*, *-tois* and in the Mikhailovskoye dialect with *-muozebad* / *-muužebad*, *-tuozebad* / *-tuužebad* (*kumarda-*[*m*]*mokseh* / *kumarda-moh* / *kumarda-muužebo*, *kumarda-*[*t*]*tokseh* / *kumarda-toh* / *kumarda-tuužeb*). In Karelian Proper the same affixes are used in the 1sg, 2sg, 1pl, and 2pl (Poduzhemye: *kumardelie-mačči*, *kumardelie-tačči*, Maslozero: *kumarda-mačči*, *kumarda-tačči*), although distinct plural affixes *-mmaččeh* ~ *-mmäččeh*, *-ttaččeh* ~ *-ttäččeh* have been recorded in Reboly subdialects. (See Bogdanova 2003: 73–81; Atlas: map 166; Programmy 155–157.)

In Livvi-Karelian, South Ludic, and the Karelian Proper Suoyarvi dialect, the 3pl suffix variants are *-hes* / *-hez*, *-has* ~ *-häs* / *-haz* ~ *-häz*, *-heze*, *-haze*, in Northern Ludic *-hoize*, in Mikhailovskoye *-he*, *-heze*, *-zeba* (*kumardeta-heze* / *kumardeta-he* / *kumarda-zeba*), in Padany and Shuyezero subdialects *-haže*, in Reboly subdialect *-has* ~ *-häs*, in Kestenga, Vychetaybola, Panozero, Poduzhemye, Maslozero, and Tunguda subdialects *-hačči* ~ *-häčči* (Poduzhemye: *kumardelie-hačči*). They are added to the passive stem. (See Bogdanova 2003: 81–93; Atlas: map 167; Programmy: 155–157.)

Negatives are formed with the personal forms of the connegative verb and with the main verb affixes *-de* / *-te*, *-ze*, *-i*, *-je*, *-jje*, deriving from the reflexive derivational affix **-te*. This is the 2sg imperative form. Other imperatives are formed by adding reflexive suffixes to the regular imperative forms. In the imperfect indicative, the same personal suffixes — with some rare exceptions — are added to imperfect stems, and in the conditional and potential to inflectional stems that contain mood affixes. Other compound verb forms are formed similarly to regular conjugation; however, the 2nd participle forms contain an additional reflexive affix, usually a 3rd person present personal suffix (Livvi-Karelian: *on rodinuhez* 'has been born', Padany: *olen* annannu[h]*uže* 'I have ceded'). (See Anisimov 1948: 116–118; Rjagoev 1987: 356–370; Adeľ 1998: 125–126; Bogdanova 2003: 87–153; Atlas: maps 168–172; Programmy: 157.)

The reflexive conjugation systems presented in the normative grammars of Ahtia, Anisimov, Markianova, and Pyöli are based on that of the Livvi-Karelian dialect. In Anisimov's grammar, the 1st and 2nd person suffixes of regular and reflexive verbs differ from one another in terms of the vowel element (*myö heitä-mm**ä*** 'we lower' / *myö heitä-mm**ö**kseh* 'we lower ourselves'). The reflexive paradigms presented in the grammars are basically the same and do not differ from how the phenomenon manifests in the Livvi-Karelian dialect.

[151] These affixes derive from the ancient forms **-kmokseh*, **-ktokseh*, in which *k* is the present tense affix (Rjagoev 1987: 370).

Bubrih notes that "in the literary language, 3rd person forms can be used in a reflexive sense in several subdialects Karelian", e.g. present indicative: *peze-kse* / *peze-h* 'he/she washes him/herself', imperfect indicative: *pezi-h*, conditional: *pezizi-h*, potential: *pesse-kse* / *pesse-h* (Bubrih 1937: 63), but these forms are not detailed in the grammar.

Normative grammars give the following examples on the use of reflexive conjugation: *Tuatto istuih stolan tuaksi*. 'Father sat himself behind the table', *Myö suoriimmokseh i lähtimmä školah*. 'We clothed ourselves and went to school.' (Anis), *Häi ei hengähtännühes*. 'He did not rest.' (Mark), *Kai hüvä on loppenuhes*. 'Everything good has come to an end.' (Pyöl).

8.8 Nonfinite verbs forms

Nonfinite verb forms combine features of both verbs and nominals. They are formed from the lexical stem of a verb. Nonfinite verb forms differ from inflectional forms in that they do not express morphologically such grammatical categories as person, number, tense, and mood. However, nonfinite verb forms are inflected in number and case like nominals. As to their syntactic function, nonfinite verb forms — as well as conjugating verb forms — may function syntactically as an adverbial, object, attribute, the nominal part of a compound predicate, or even as a subject. In Karelian, nonfinite verb forms are divided into two groups: 1) infinitives, which combine features of verbs and nouns, and 2) participles, which share features of verbs and adjectives. (Adel' 1998: 110; Markianova 2002: 153, 159; Zaikov 2002: 120.)

Nonfinite verb forms are formed from the verb stem by adding infinitive or participle affixes to them, potentially followed by number affixes and case endings that are used in nominal declension:

	verb stem	verb infinitive affix	number affix	case ending
aja-ma-h	*aja-*	*-mA-*		*-h*
ote-ttu-loi-s(sa)	*ote-*	*-ttU-*	*-lOi-*	*-s / -ssA*

Lexemes: *ajua* / *ajoa* / *ajaa* / *ajada* 'to drive', *ottua* / *ottoa* / *ottaa* / *ottada* 'to take'.

There is no consensus on the number of nonfinite forms in Finnic languages. Thus, the terminology in grammars of Karelian varies depending on the research tradition and classification principles. Contemporary grammars of Finnish divide nonfinite verb forms into three infinitives: the 1st infinitive (A infinitive), 2nd infinitive (E infinitive), 3rd infinitive (MA infinitive); and four participles: active 1st participle (VA participle), active 2nd participle (NUT participle), passive 1st participle (VA participle),[152] and passive 2nd participle (TU participle) (see VISK § 120–122). This is also the classification used in the contemporary normative grammars by Markianova and Zaikov, and also on which the description presented in this study is based.

Infinitives

Infinitives are group of nonfinite verb forms (see Tables 64 and 65). They are word forms that combine features of verbs and nouns. Infinitives express an action that has no relation to a person, tense, or mood. They are inflected in certain grammatical cases similarly to nominals, but not in number (Zaikov 1999: 84; Markianova 2002: 153; VISK § 119). Infinitives can

[152] The VA participle has a passive equivalent containing the affix *(t)ta ~ (t)tä*.

receive a direct object and an adverbial as their attribute, which is why they can be considered to be part of the conjugation system (Adel' 1998: 110). Syntactically, infinitives are in agreement with a certain group of finite verbs.

Grammars of Karelian discern two to five infinitives, with varying terminology. Genetz describes four infinitives (the 1st, 2nd, 3rd, and 4th infinitive) in Karelian Proper dialects (Genetz 1880: 216–218) and three in Livvi-Karelian dialects (the 1st, 2nd, and 3rd infinitive) (Genetz 1885: 166). Beljakov mentions in his grammar that Tver Karelian subdialects have retained one infinitive and six gerunds, one of which ends with *-e* and five of which are gerunds with *m* (Beljakov 1948: 112–115). Anisimov also regards infinitives ending with *-mA* and *-e* as gerunds (Anisimov 1948: 204–206). Palmeos and Rjagoev distinguish the 1st (with *t*) and 2nd (with *m*) infinitive; in his study on Livvi-Karelian Rjagoev regards the forms ending with *-e* as gerunds (Palmeos 1962: 65–67; Rjagoev 1977: 152–157; Rjagoev 1987: 371–376). In his description of the Ves'yegonsk subdialect, Manžin mentions two infinitives, one of which ends with *-ma*, and also present tense unbounded aspect gerunds (ending with *-e*) (Manžin 1964: 54–57).

Barantsev describes three infinitives in the Svyatozero subdialects: the 1st infinitive ending with *-dA*, *-A*, *-i*; the 2nd infinitive ending with *-de*, *-e*; and the 3rd infinitive ending with *-mA* (Barantsev 1985: 162–165). Differences between the descriptions of the infinitive systems of Karelian dialects are mainly terminological. This is due to different research traditions and the lack of general principles in distinguishing verb forms. Regardless of their terminology, all descriptions still analyse the same infinitive forms. For this reason, the present study uses the traditional three-way division used in contemporary Finnic linguistics: the 1st, the 2nd, and the 3rd infinitive.

The 1st and 2nd infinitives are quite closely matched in both formation and origin, which is why several grammars combine them into a single group (the infinitive with *t*). The form and number of their affixes are determined by the phonological and morphological features of each dialect, such as the consonant gradation system and assimilation processes.

Bubrih's and Anisimov's normative grammars (see Table 65) distinguish two infinitives: the 1st and the 2nd infinitive (Bubrih 1939: 64; Anisimov 1939: 103–104). In Bubrih's grammar, infinitives with *-e-* are regarded as gerunds of manner (in the instructive, e.g. *andajen*) or gerunds of simultaneous action (in the inessive, e.g. *andajessa* / *anduassa*). Some infinitives with *-m-* also count as gerunds, i.e. the gerund of being in action (in the inessive, e.g. *pyydämässä*), the gerund of leaving action (in the elative, e.g. *pyydämästä*) and the gerund of lack of action (in the abessive, e.g. *lugematta*). (Bubrih 1937: 64–65.) Ahtia describes five infinitive forms: the 1st (*-t-*), the 2nd (*-e-*), the 3rd (*-m-*), the 4th (*-mine*), and the 5th infinitive (*-ndA*) (Ahtia 1938: 78–79). Zaikov's and Markianova's grammars conform to the traditional classification, according to which there are three infinitive forms in Karelian regardless of the affix: the 1st (with *t*), the 2nd (*-e-*), and the 3rd infinitive (*-m-*) (Zaikov 1999: 84; Markianova 2002: 153; Zaikov 2002: 120; Pyöli 2011: 122; Zaikov 2013: 189).

8.8.1 1st infinitive

In Finnic languages, the 1st infinitive is used as the lemma, as it has the smallest number of grammatical categories. The 1st infinitive shows the verb stem and an affix (*andu-a* / *ando-a* / *anda-a* / *andi̯-a* / *anda-da* / *ant-ta* / *an-ta* 'to give', *pur-ra* / *pur-da* 'to bite'). The 1st infinitive affix in Late Proto-Finnic was **-tak ~ -täk*, subject to suffixal consonant gradation (**-tAk* : *-δAk*) (OFUJA : 85). The weak-grade affix was used in one- and two-stem nominals whose stems ended with sonorants. In Karelian, this affix as been affected by numerous sound changes, which has resulted in the diversity of contemporary variants (see Table 64).

In Karelian Proper and Livvi-Karelian, the 1st infinitive affix of polysyllabic single-stem verbs ending with a short vowel is *-a ~ -ä*. This affix occurs in verbs whose stem ends with *a ~ ä*, but in subdialects the affix may also occur in verbs whose stem ends with a labial vowel and the vowels *i*, *e*. The second affix is *-o ~ -ö* (in verbs whose stem ends with a labial vowel) and the third one is *-e* (in verbs whose stem ends with *e*, *i*) (*oštu-a* / *ostu-a* / *osto-a* / *osta-a* / *osto-o* (Padany), *šanu-o* / *sanu-o* / *sanu-a* (Panozero, Maslozero, Porozero, Padany, Tikhvin, Salmi, Tulomozero, Vidlitsa, Vedlozero, Nekkulitsy subdialects) / *sano-a* (Porozero, Myandusel'ga, Syamozero, Vidlitsa), *lugi-e* / *luki-e* / (Poduzhemye, Rugozero, Padany, Vidlitsa). The adding of these affixes to the verb stem may cause changes in the final stem vowel (*itke+e* > *itkie*). This is due to the loss of the original spirant and the formation of long vowels and diphthongs that are foreign to the dialect's phonological system.[153] In the Dyorzha dialect of Karelian Proper, this conjugation type features either a zero suffix due to apocope, or *w*, in the 1st infinitive (*oštu* / *oštu-w*, *šanu*, *lugi*). The 1st infinitive affix is added to the strong stem of polysyllabic single-stem verbs which contain consonants that are subject to gradation.

With single-stem verbs whose stem ends with a diphthong or a long vowel, the 1st infinitive is formed with the suffixes *-va ~ -vä* (after the long vowels *uu*, *yy* [*uv*, *yv*]), *-ja ~ -jä* (after diphthongs ending with *i* and after the long vowel *i*), *-ha ~ -hä* (other monosyllabic single-stem verbs) (*-v*, *-j*, *-h* in the Dyorzha dialect) (*šyy-vä* / *syy-vä* / *šyyv-vä* / *syyv-vä* / *šyv-vä* / *syv-vä* / *syy-ä* [Padany, Rugozero, Myandusel'ga, Porozero subdialects], *vii-ja* / *viij-ja* / *vij-jä*, *šua-ha* / *šoa-ha* / *sua-ha* / *soa-ha* / *saa-ha* / *soo-ha* [Padany] / *suo-ja* [Nekkulitsy, Rypushkalitsy]).

In Ludic, the 1st infinitive affixes of single-stem verbs are *-da ~ -dä, -ta ~ -tä* (*osta-da*, *sanu-da* / *sano-da* / *san-da*, *luge-dä*, *syö-dä* / *šyö-dä* / *syy-dä*, *vie-dä* / *vii-da*, *sua-da* / *suo-da*). In western subdialects of South Ludic, polysyllabic single-stem verbs may have the infinitive affix *-a ~ -ä*, which can be considered an apparent influence of the neighbouring Livvi-Karelian dialects. In Svyatozero subdialects the affix may also be *-i* (*osto-a* / *osta-i*, *sanu-o* / *sano-i*, *luge-i*).

The 1st infinitive forms of two-stem verbs are formed from the consonant stem with the affixes *-ta ~ -tä*, **-δa ~ -δä*. They are subject to progressive assimilation in Karelian Proper and Livvi-Karelian, with the exception of Livvi-Karelian verbs whose consonant stem ends with *s* and also *r* and *l* in northern Livvi-Karelian dialects (Syamozero subdialects). For this reason, the selection of 1st infinitive affixes has been supplemented by the suffixes *-la ~ -lä*, *-na ~ -nä*, *-ra ~ -rä*, *-sa ~ -sä*, *-ša ~ -šä* (*-l*, *-n*, *-r*, *-s*, *-š* in the Dyorzha dialect) (*tul-la* / *tul-ta*, *män-nä*, *pur-ra* / *pur-ta*, *peš-šä* / *pes-sä* / *pes-tä*). In Ludic dialects that lack gradation the dental spirant in the infinitive affix has become voiced after sonorants and the nasal *n* (*tul-da*, *män-dä*, *pur-da*, *pes-tä*). In Late Proto-Finnic, the adding of the affix **-tak ~ -täk* to an affix ending with *t* has created a geminate in contraction verbs. In time, it has developed into a single consonant, which occurs in all main dialects of Karelian (*ava-ta* / *ava-t* (Dyorzha), Ludic: *avoi-ta* / *avai-ta*). (See also Õispuu 1994: 54–56; Atlas: maps 174–178; Programmy: 149–151; KKMK.)

In the contemporary standard varietes of Karelian, infinitive affixes are determined the same way as in the dialects on which the varieties are based. In the Livvi-Karelian standard, the stem consonants *s* and *r* are followed by the affixes *-ta ~ -tä* that are not subject to assimilation. In the normative grammars of the 1930s this rule only applies to the position following the sibilant *s*. The formation of the 1st infinitive forms from other conjugation types does not differ between the standard varieties of Karelian.

The 1st infinitive may occur syntactically in a manner identical to nominals:

1) as part of a compound predicate, e.g. *Lapsella himottau muata*. 'The child wants to sleep.' (ZaiK), *Minul(e) pidäü huogavuo*. 'I need to rest.' (Pyöl);

[153] See chapter 3.2 *Stem-final vowel alternations*.

2) as a direct object, e.g. *Valmistan vähäzen süvvä*. 'I will prepare us a bite to eat.' (Mark), *Mie mahan soittua kantelella*. 'I can play the *kantele*.' (ZaiK);

3) as a subject, e.g. *Paha on vihata tostu*. 'It is bad to hate someone.' (Mark);

4) as a noun attribute, e.g. *Vagoloi valella vezi on kaivos*. 'The water for the furrows is in the well.' (Mark).

This verb form is used as the dictionary form. In speech, the 1st infinitive is used

1) to express the goal of an action, e.g. *Miula ei ole nimitä siula antua*. 'I have nothing to give you.' (ZaiK);

2) with verbs expressing the beginning of an action, a desire, a possibility, and necessity, e.g. *Koira alkau haukkuo*. 'The dog begins to bark.' (ZaiK), *Voitto jo tulla*. 'You may come now.' (Pyöl);

3) with impersonal verbs, e.g. *Minul pidäü vuottua*. 'I must wait.' (Mark), *Siula pitäy lähtie pois*. 'You must leave.' (Zaik);

4) in interrogative sentences: *Midä ruadua?* 'What to do?' (Pyöl). (Adel' 1998: 111–113; Zaikov 1999: 84; Markianova 2002: 154; Zaikov 2002: 121; Pyöli 2011: 123–124; Zaikov 2013: 190.)

8.8.2 2nd infinitive

The 2nd infinitive forms are called gerunds in some grammars. They express additional action which characterises the manner or form of another action or expresses their simultaneousness, which makes them somewhat similar to adverbs. (See Anisimov 1948: 204–205; Beljakov 1948: 112–113; Barantsev 1985: 164; Rjagoev 1987: 376.)

In the Late Proto-Finnic period, the 2nd infinitive affix was the suffix **-te*, which was subject to suffixal gradation (**-te* : *-δe*) and was derived from the 1st infinitive suffix (Leskinen 1979: 68). The vowel change *a* ~ *ä* > *e* is due to a phonetic law operating in the position between two dental and alveolar consonants in the same syllable (Adel' 1998: 114). As with the 1st infinitive, the diversity of the 2nd infinitive affixes in Karelian is due to the changing of the spirant's quality, or, in weak-grade forms, its elision. The affix occurring after the final verb stem consonant has in some positions been affected by progressive assimilation. The 1st and 2nd infinitives have developed similarly, which has led some researchers to combine them into a single infinitive form (infinitives ending with *-t*) or to describe the formation of the 2nd infinitive as the 1st infinitive form receiving a case ending, during which infinitive final vowel change occurs. Contemporary Karelian grammars written in Russian traditionally distinguish the 2nd infinitive affix *-e*, *-je*, which is added to the 1st infinitive form, whereas corresponding grammars written in Finnish also distinguish affixes containing the consonant element *-te*, *-Ce*.

In Karelian Proper dialects, polysyllabic single-stem verbs whose stem ends with a short vowel (the 1st infinitive ending with a diphthong), the 2nd infinitive forms are formed directly from the base verb form with no alternations (*ottua-s's'a* / *ottua-ssa* / *ottoa-s's'a* / *ottoa-ssa* / *ottoa-šša* (Padany) / *ottoa-s* / *ottua-s* (Korpisel'kya, Suystamo), *lugie-n* / *lukie-n*). In Livvi-Karelian dialects and their neighbouring Suoyarvi subdialects, the 2nd infinitive inflectional stem is formed from the verb stem by adding to it the affixes *-je*, *-e* (*otta-je-s* / *otta-e-s*, *lugi-je-n* / *lugi-e-n*). Analogous forms are also present preceding the instructive affix in the Karelian Proper Tikhvin dialect (*kanda-je-n*). In the Karelian Proper subdialects of Russian Karelia, 2nd infinitive forms ending with *i* may occur (Ukhta: *vuottoa-i-s's'a*, Kontokki: *roatoa-i-s's'a*, Tunguda: *roadoa-i-s's'a*, Yushkozero: *noššattua-i-s's'a*, Maslozero: *ottua-i-ssa*, *lugie-i-n*). The affix *-e* is used in the 2nd infinitive forms of other conjugation types (single-stem verbs with a stem ending with a diphthong and two-stem verbs) when the 1st infinitive affix contains a consonant and the vowels *a*, *ä*. In the Finnish linguistic tradition, this is a case of using the

affixes *-te*, *-Ce* (*ava-t-e-ssa* / *ava-t-e-šša* / *ava-t-e-s*). In Ludic, the 2nd infinitive inflectional stem of all verb types is formed by changing the final vowel of the base form into *e* or using the affixes *-de-*, *-te-* (*otta-d-e-s*, *lugi-d-e-n*, *ava-t-e-s* / *avai-t-e-s*). (See Õispuu 1994: 56–58; Atlas: map 179; Programmy: 151; KKMK.)

Similarly to other Finnic languages, the 2nd infinitive in Karelian has two grammatical cases: the inessive and instructive. They are formed by adding the corresponding case endings to the 2nd infinitive inflectional stem or directly to the 1st infinitive form (*-šša* ~ *-ššä*, *-s's'a*, *-ssä*, *-s* in the inessive, *-n* in the instructive). The palatalised inessive ending variant *-s's'a*, mostly present in the Viena Karelian, transitional, and enclave dialects of Karelian Proper, occurs in polysyllabic verbs that contain only back vowels. Historically, the suffix has occurred after **i* / **j*. This is still true to some subdialects of Karelian Proper and Livvi-Karelian (*anduo-i-s's'a* and *anda-je-s*, respectively). (See Rjagoev 1977: 155.) Based on descriptive grammars, the dialect atlas data gathering programme booklets (Programmy), and Karelian language samples, 2nd infinitive instructive forms are gradually being replaced by parallel constituent structures.

In terms of normative grammars (see Table 65), only Ahtia's grammar and the latest grammars distinguish 2nd infinitive forms ending with *-e* (Ahtia 1938: 78; Markianova 2002: 155–156; Zaikov 2002: 122–123; Pyöli 2011: 124–125; Zaikov 2013: 192–195). These forms are called the the gerund of the manner of action or simultaneous action in the grammars of the common Karelian language (see Bubrih 1937: 64; Anisimov 1939: 141–143). In all grammars, 2nd infinitives are formed from two-stem verbs with the affix *-e* (*-te*, *-Ce*). In standard Livvi-Karelian, as in Ahtia's and Anisimov's grammars, 2nd infinitives are formed from polysyllabic single-stem verbs whose stem ends with a short vowel with the affix *-je*. In standard Viena Karelian a zero affix is commonly used, with case endings being added directly to the 1st infinitive stem, while the use of the affix *e*, which is added to the strong verb stem, is required only in the instructive form. In his grammar of the common Karelian language, Bubrih allowed both Livvi-Karelian and Karelian Proper variants of 2nd infinitives ("gerunds") of verbs of this conjugation type.

The 2nd infinitive inessive form is used to express the simultaneousness of action, e.g. *Čuajun juuves tuatto lugi gaziettua.* 'Father was reading the paper as he drank tea.' (Anis), *Kodih tulles ostin leibiä.* 'I bought some bread on my way home.' (Mark), *Lukiessa kirjua eči uuvvet šanat.* 'When reading a book, look for new words.' (ZaiK).

The 2nd infinitive instructive form expresses the means or manner of action, e.g. *Brihačču nagrajen lugou interesnoida kniigua.* 'They boy is reading an interesting book, laughing.' (Anis), *Lapsi tuli kodih itkijen.* 'The child came home crying.' (Mark), *Sain äijä tietuo lukien ta kuunnellen toisie.* 'I received a lot of information by reading and listening to others.' (ZaiK). (Anisimov 1939: 141; Rjagoev 1977: 154–155; Barantsev 1985: 164; Rjagoev 1987: 376; Adel' 1998: 114–115; Markianova 2002: 156; Zaikov 2002: 122–123.)

8.8.3 3rd infinitive

The 3rd infinitive is without exception quite productive in all Karelian dialects. Its affix *-ma-* ~ *-mä-* is added to the strong-grade vowel stem of a verb and is followed by case endings (*haravoi-ma-h* / *haravoi-ma-a*, *luge-ma-h* / *lugo-ma-h* / *luke-ma-h* / *luko-ma-h* / *luge-ma-a* / *lugo-ma-h* / *luge-ma-i* / *luge-ma-ha*). In Central and South Ludic dialects, it is possible to use the geminate 3rd infinitive affix *-mma-* ~ *-mmä-* (*haravoi-mma-h* / *haravoi-mma-i*) in polysyllabic single-stem verbs. In Karelian Proper dialects, with the exception of the Border

Karelian dialects (Suoyarvi, Korpisel'kya, Ilomantsi, and Suystamo), the *e* in the stem is typically labialised before the *m* of the affix (*tulo-ma-h* vartalosta *tule-*). (See Õispuu 1994: 51–54; Adel' 1998: 116–120; Atlas: map 180; Programmy: 151; KKMK.)

The number of 3rd infinitive grammatical cases varies in Karelian dialects, as evinced by the descriptive grammar data. Genetz's Livvi-Karelian and Karelian Proper subdialect descriptions contain examples only of the 3rd infinitive illative, although he reports that other cases can also be used (Genetz 1880: 217; Genetz 1884: 166). In his description of Ludic subdialects, Genetz describes the inessive, illative, adessive, and abessive forms (Genetz 1872: 27–32). Three 3rd infinitive forms are given in Anisimov's and Rjagoev's descriptions of Livvi-Karelian: the inessive-elative, illative, and abessive, or, as per Anisimov, "the gerund of being in action and the gerund of leaving action, [and] the abessive gerund" (Anisimov 1948: 205–206; Rjagoev 1987: 372). The Tver Karelian dialect descriptions of Beljakov's and Manžin list the inessive, elative, illative, and abessive forms (Beljakov's gerunds of being in action / leaving action, taking action, and lacking action). Palmeos and Rjagoev also add the partitive form on the basis of the data from Valday and Tikhvin (called by them "2nd infinitive case forms") (Beljakov 1948: 112–116; Manžin 1964: 58; Palmeos 1962: 66; Rjagoev 1977: 156–157). Barantsev describes three 3rd infinitive forms in Ludic Svyatozero subdialects: the inessive-elative, illative, and abessive (Barantsev 1985: 162), whereas Virtaranta gives in his description of the morphological system of the Gallezero subdialect only the illative form, although the adessive and abessive forms are also present in the examples (Virtaranta 1986: 105). Differences in the 3rd infinitive forms are explained mainly by the case systems of each main dialect and dialect. Moreover, while, for instance, the 3rd infinitive illative is productive in all dialects, some other forms, such as the partitive and adessive, are used only infrequently. The endings used to form the 3rd infinitive case forms are the same as with nominals.

Ahtia's grammar and that of standard Livvi-Karelian feature all possible 3rd infinitive cases: the inessive, elative, illative, adessive, abessive, and partitive (see Ahtia 1938: 179; Markianova 2002: 157). The partitive form is not listed in the grammar of standard Viena Karelian (Zaikov 2002: 124; Zaikov 2013: 195). For the common literary language, Bubrih suggested the use of the illative, inessive, elative, and abessive forms (in his terminology, the 2nd infinitive, the gerund of being in action [Anisimov's 2nd infinitive], the gerund of leaving action, and the gerund of lack of action, or the abessive gerund, respectively), which have the Karelian Proper suffix variants *-ssA*, *-stA*, *-ttA*. The case endings in Anisimov's grammar are based on those of Livvi-Karelian, which explains the merging of the inessive and elative forms (Bubrih 1937: 64; Anisimov 1939: 103–104, 143).

3rd infinitive forms derive their meaning directly from the case. In dialects, the most wide-spread form is the 3rd infinitive illative. It expresses the goal of an action, e.g. *Tule avuamah ovie*. 'Come open the door.' (Bubr), or action that is about to be taken, e.g. *Lähtemmögo hiihtelemäh?* 'Shall we go skiing?' (Pyöl), *Emäntä lähtöy lehmyä lypsämäh*. 'The matron is about to go and milk the cow.' (ZaiK). This form is most often used with verbs of movement and beginning. In conjunction with nominals, this form expresses a state, e.g. *Olemmo valmehet avvuttamah sinul(e).* 'We are ready to help you.' (Pyöl), *Hiän on hyvä hiihtämäh*. 'He is good at skiing.' (ZaiK). The illative form is also often used to express the future in open compounds with verbs of beginning, e.g. *Huomei selgiemmö ruadamah*. 'Tomorrow we will start working.' (Pyöl), *Päivä rupei laskeutumah*. 'The sun had begun to set.' (Zaik).

The 3rd infinitive inessive is used to express being in action, e.g. *Velli oli kalua pyydämässä*. 'Brother was fishing.' (Bubr), *Muamo on järvel sobii huuhtomas.* 'Mother is washing clothes in the lake.' (Mark), *Pereh on jo makuamassa*. 'The family is already sleeping.' (ZaiK). Correspondingly, the 3rd infinitive elative expresses leaving an action, e.g. *Velli tuli*

kalua pyydämästä. 'Brother came from fishing.' (Bubr), *Piästä velloin maksamas*. 'To be relieved from paying one's debts.' (Mark), *Lapsi nousi makuamasta*. 'The child got up (from sleeping).' (ZaiK).

The 3rd infinitive adessive is used to express the way an action is performed, e.g. *Kodih piäzimmö astumal*. 'We got home on foot.' (Mark), *Kieltä opassetah pakajamalla, lukomalla ta kirjuttamalla*. 'Language is taught by speaking, reading, and writing.' (ZaiK).

The 3rd infinitive abessive expresses an unmanifested action or a lack of action, e.g. *Hän istuu lugematta*. 'He is sitting without reading.' (Bubr), *Lehmät ollah lypsämättä*. 'The cows have not been milked.' (Anis), *Kogo päivü meni süömättäh*. '(Sb) did not eat the whole day.' (Mark), *Emmä voinun olla nakramatta*. 'We could not help laughing.' (ZaiK).

The 3rd infinitive partitive is used to express action due to which something comes into being, and also the result of an action, e.g. *Keittämiä pada musteni.* 'The pot turned black from cooking.' (Mark). (See Rjagoev 1977: 156–157; Barantsev 1985: 162; Rjagoev 1987: 372; Õispuu 1994: 51–54; Adel' 1998: 117–120; Zaikov 1999: 86–87; Markianova 2002: 157–158; Zaikov 2002: 124–127; Pyöli 2011: 125–127; Zaikov 2013: 196–199.)

Participles

Participles are nominal verb forms with features of verbs and adjectives. Participles are formed from the lexical stem of a verb of any inflectional type, or from the passive verb stem, by adding to it certain suffixes, which are followed by the affixes of number and case. For this reason, contemporary Finnic linguistics considers the formation of participles a border case between verb conjugation and word derivation (VISK § 61).

Like conjugating verbs, participles also have the category of voice, i.e. there are passive and active participles. They can express either bounded/unbounded or finished/unfinished (perfective/imperfective) action in relation to the topic situation: the present (1st participle) and the past time (2nd participle) participles. Participles are connected to adjectives both in their ability to be inflected in number and case and their syntactic function, as in a sentence participles are most often attributes or the nominal part of a compound predicate. (See Rjagoev 1987: 373–376; Adel' 1998: 97–98; Zaikov 1999: 87.) Participles are used extensively to form compound tenses in different moods. It is typical of Finnic languages as a whole for participles to become lexicalised as adjectives (adjectivisation) and nouns (nominalisation).

8.8.4 Active 1st participle

The active 1st participle (the participle of unbound action) is formed in Karelian dialects with derivational affixes. The agent noun derivational affix *-ja ~ -jä* is used in Karelian Proper but also in oblique cases in Livvi-Karelian and Ludic; *-i* is used in Livvi-Karelian and Ludic and the Karelian Proper Tikhvin and Dyorzha dialects, and *-ju ~ -jy* is used in Livvi-Karelian dialects in the nominative singular (*ruadaja* / *ruataja* / *roadaja* / *raadaja* / *roodaja* / *ruadaju* / *roadaju* / *ruadai* / *roadai* / *raadai* 'one that is working', *lugija* / *lukija* / *lugiju* / *lugii* 'one that is reading'). Derivational affixes are added to the strong vowel stem while the final stem vowel *e* changes into *i* (*tuli-ja* / *tuli-ju* / *tuli-i* 'one that is coming'). (See Õispuu 1994: 43; Adel' 1998: 99; Atlas: map 183; Programmy: 153; KKMK.)

The active 1st participle forms ending with **-va ~ -vä*,[154] typical of Late Proto-Finnic, have become practically obsolete in Karelian, although they are mentioned in the earliest grammars by Genetz. In the dialect atlas data gathering programme booklets, the few forms ending with

[154] Linguists connect the derivational affix to the active participle affix **-pa ~ -pä*, which has become subject to suffixal gradation in Late Proto-Finnic (OFUJA: 86).

-va ~ -vä have been recorded only in Karelian Proper Viena Karelian dialects (*lugeva* / *lukeva* / *lukova* 'reading'), which may be influence from Finnish (Programmy: 153). Nowadays, forms ending with *-va ~ -vä* have become adjectives (*palava* / *palavu* / *palav* 'burning', *elävä* / *elävy* / *eläv* 'living'), but they also occur in fixed phrases, e.g. Syamozero: *korvien kuulevil*, *silmien nägevil* 'to be within hearing and seeing range' (Rjagoev 1987: 374).

Ahtia's is the only normative grammar to mention the active 1st participle ending with *-va ~ -vä,* and it is paralleled by forms ending with *-ja ~ -jä*, *-j*. Other grammars codify the widely spread active 1st participle forms ending with *-ja ~ -jä*. In standard Livvi-Karelian, the reduced affix *-i* occurs in the singular nominative, and *-ju ~ -jy* is used after a stem that ends with a diphthong.

The active 1st participle is used to express an action caused by a person or an inanimate referent, or an action that is unbounded at the moment, e.g. *lendäjä lindu* 'a flying bird' (Anis), *Vahnoi pajoloi pajattai baboi puaksuh kävüü meile.* 'The grandmother who sings olds songs visits us often.' (Mark), *Onko tuo tulija vai mänijä juna?* 'Is that train coming or going?' (ZaiK) (see Zaikov 1999: 88; Markianova 2002: 161; Zaikov 2002: 129; Pyöli 2011: 128; Zaikov 2013: 202).

8.8.5 Active 2nd participle

The active 2nd participle functions as an attribute and is widely spread in all dialects of Karelian. It is used in the formation of affirmative and negative compound tense verb forms.

There are a few active 2nd participle derivational affix variants in the Karelian language (see Table 66). Karelian Proper dialects use the derivational affixes *-(n)nun ~ -(n)nyn*, *-(n)nut ~ -(n)nyt* and their shortened variants *-nu ~ -ny*, *-n* (*vaibunnut* / *vaibunut* / *vaipunut* / *vaibunnun* / *vaibunun* / *vaibun* / *vaivun* 'one that is tired', *lugenut* / *lukenut* / *lugenun* 'one that has read'). Based on the information in the dialect atlas of the Karelian language and its data gathering programme, the following conclusion can be made on the use of long participle affix variants in Karelian Proper: Parallel use of each variant is typical of the enclave dialects, the Padany and Myandusel'ga dialects and other neighbouring South Karelian subdialects. There is also a tendency to use a variant ending with *t* when the participle functions as an attribute, whereas the variant ending with *n* and other shortened variants of the affix (*otta-n*, *otta-nu*, *otta-nt*, *otta-t* 'one that has taken') occur in complex verb structures. In other distribution areas of Karelian Proper, the affix variant ending with *t* is prominent in independent participles. (See Genetz 1880: 217; Palmeos 1962: 67; Rjagoev 1977: 158; Õispuu 1994: 45–48; Adel' 1998: 102–103; Zaikov 2000: 148–149; Atlas: map 184; Programmy: 153; KKMK.) The shortened variants of the active 2nd participle (*-n*, *-nt*, *-nu* [Tunguda, Padany, Myandusel'ga, Valday], *-t* [Voknavolok, Kontokki, Rugozero, Reboly]) are typical only to polysyllabic single-stem verbs in Karelian Proper, which has been explained as the language's tendency to avoid polysyllabic words, but in subdialects the affix occurs also in wide-spread two-stem contraction verbs (*en ruven* 'I did not begin to do smth') (Zaikov 2000: 149–150). Such forms are mainly used with participles that are part of a complex verb structure. In the Karelian Proper Tikhvin dialect, the short affix *-n* has been influenced by the vocalisation typical of the dialect (*en šanoǫ* 'I did not say') (Rjagoev 1977: 158).

In Livvi-Karelian and its neighbouring Border Karelian subdialects of Karelian Proper (Suoyarvi, Korpisel'kya, Ilomantsi, and Suystamo), the active 2nd participle affix is *-(n)nuh ~ -(n)nyh*, although the affix *-(n)nut ~ -(n)nyt* (*väzynyh* / *väzynnyh* / *väzynnyt* / *väzynyt* 'tired', *lugenuh* / *lugennuh* / *lugennut* 'read') is also used in southern subdialects of Livvi-Karelian

(Nekkulitsy, Vidlitsa, Impilakhti). In Ludic the affix is *-(n)nu ~ -(n)ny*, and subdialects of South Ludic also feature the affix *-(n)nut ~ -(n)nyt (väzyny / väzynyt / vaiznu, lugenu*). (Atlas: map 184; Programmy: 153; KKMK.)

The use of geminate active 2nd participle affix variants in single-stem verbs (*otta-nnu*[*C*] 'taken') can apparently be explained as an analogy of disyllabic contraction verb forms (**ruvet-nut* > *ruven-nu*[*C*] 'begun'). Livvi-Karelian and Ludic dialects lead one to conclude that the geminate affix is used after a stressed syllable, either primary or secondary, i.e. in single-stem verbs with a mono- or trisyllabic stem, whereas a disyllabic stem is most often followed by a single-consonant affix. With the data available on Karelian Proper, it is not possible to discern a pattern of geminate and single-consonant affix use that would apply to all dialects.

With single-stem verbs the active 2nd participle affix is added to the strong stem, which makes phonetic sense only when using either a single-consonant or an unreduced affix. In Karelian Proper, the formation of active 2nd participle forms with a geminate affix or the affix *-n* breaks the main rule of consonant gradation. This is explained by the formation history of this particular derivational affix: it derives from the single-consonant Late Proto-Finnic affix **-nUt* : *-nUδe-* (Häkkinen 1985: 128).

With two-stem nominals, the affix is added to the consonant stem, and progressive assimilation takes place on the boundary of the stem and the affix. In Karelian Proper and Livvi-Karelian this occurs with verbs whose consonant stem ends with *l*, *r*, in Karelian Proper also with *š*, *s* (*tul-lut* / *tul-lun* / *tul-luh* / *tul-nu* 'has come'). Regressive assimilation has occurred in main dialects with verbs whose consonant stem ends with *t* (*ruven-nun* / *ruven-nut* / *ruven-nuh* / *ruven-nu* / *ruben-nu* 'has begun'). (Zaikov 2000: 150; Programmy: 153.)

In Karelian Proper and Livvi-Karelian there is a diphthong in the active 2nd participle oblique cases, formed by the elision of the dental spirant *δ* from the historical affix **-nUδe-* : *u* > *uo*, *y* > *yö* ~ *ye* (*otta-nuo-t* / *otta-nnuo-t* 'those who have taken'), whereas in Ludic the affix has retained its historical form (*otta-nude-t*). Genetz also mentions the use of forms ending with *-nehe* in Karelian Proper Viena Karelian and Reboly dialects (*koatu-nehe-t* 'those who have fallen') (see Genetz 1880: 217). In the partitive singular, the affix -(*n*)*nut* ~ -(*n*)*nyt* occurs in all dialects. In Karelian Proper South Karelian dialects, Livvi-Karelian, and Ludic, the plural inflectional stem receives the consonant segment *z* / *ž* / *s* (Tulomozero: *vaibunuzilla*, Vidlitsa: *kaadunnuzil*, Nekkulitsy: *rajavunnužis* [KKVS]; North Ludic: *kazvanužiⱡ* [LMS]) as a result of the historical alternation **ti* : *si*.

In normative Karelian varieties the various active 2nd participle variants (long/shortened, geminate / single consonant) are presented as follows. Bubrih and Anisimov suggest the long single-stem affix ending with *t* (*otta-nut*) be the standard form in the common Karelian literary language. The affix is subject to both progressive and regressive assimilation, as was the case with the previously mentioned inflectional types of consonant-stem verbs ending with *t*. Ahtia's grammar describes the use of the single-stem affix *-nuh ~ -nyh* (*otta-nuh*), with the exception of polysyllabic single-stem verbs (*hävitä-nnyh*).

In standard Livvi-Karelian the active 2nd participle affix is -(*n*)*nuh* ~ -(*n*)*nyh* (-[*n*]*nuo-* ~ -[*n*]*nyö-*). The geminate affix variant only occurs in single-stem verbs with a mono- or polysyllabic stem; the affix is added to the weak stem. With verbs with a disyllabic stem, an affix with the single consonant *n* is used, and its adding to the stem does weaken the consonant stem segment (*o**tt**a-nuh*, *kehi**t**ä-nnüh* 'has suggested'). (See Markianova 2002: 162; Pyöli 2011: 131.)

In standard Viena Karelian, active 2nd participle affixes are determined as follows: If the active 2nd participle functions as an attribute, the affix is *-nut ~ - nyt* (-[*n*]*nuo-* ~ -[*n*]*nyö-*, -[*n*]*nui-* ~ -[*n*]*nyi-*) or one of its allomorphs. In complex verb structures, a participle ending

with *-nun* / *-nyn* is often used. The short affix variant *-n* is used with polysyllabic single-stem verbs and it does not weaken the consonant. Geminate affixes with *nn* are not used in standard Viena Karelian. (See Zaikov 1999: 88–89; Zaikov 2002: 131–132; Zaikov 2013: 204–206.)

In all standard varieties of Karelian, the active 2nd participle affixes of two-stem verbs are subject to both progressive and regressive assimilation.

Excluding complex verb structures, the active 2nd participle is used independently to express some past action, bounded action, e.g. *Kuivanuh heinü pidi kerätä suattoloih.* 'Dried hay needed to be gathered into stacks.' (Mark), *Hiestynyt lapsi ei voinun muata.* 'The sweaty child could not sleep.' (ZaiK), *Ei pie itkie mennüzii aigoi.* 'You must not weep for days past.' (Pyöl) (see Zaikov 1999: 89; Markianova 2002: 163; Zaikov 2002: 132).

8.8.6 Passive 1st participle

The passive 1st participle (the passive participle of unbounded action, the passive present participle) is formed from the strong-grade passive stem[155] by adding to it the affixes *-va ~ -vä* in Karelian Proper, *-v*, *-u ~ -y* in Livvi-Karelian and Ludic dialects, and *-vu ~ -vy* in Livvi-Karelian dialects (*ote-tta-va* / *ote-tta-vu* / *ote-tta-v* / *ote-tta-u*). When inflecting passive 1st participle forms, an inflectional stem ending with *-va- ~ -vä-* is used in Livvi-Karelian and Ludic. The passive 1st participle has fallen out of active use in Karelian, as noted in descriptive grammars. (See Palmeos 1962: 67; Barantsev 1985: 168; Õispuu 1994: 44; Adel' 1998: 100–102.)

Normative grammars standardise the passive 1st participle. In grammars of both the common Karelian literary language and standard Viena Karelian, the affix variant is *-va ~ -vä*; in Ahtia's grammar it is the short Livvi-Karelian variant *-v*, while in standard Livvi-Karelian the affix *-vu ~ -vy* is used (*-va- ~ -vä-* in oblique cases).

The passive 1st participle expresses an action performed by an unknown person or an unknown group of people, or an action that needs to be performed, e.g. *Künnettävü peldo vie ei ole sulanuh jiäs*. 'The field that is to be ploughed has not yet thawed.' (Mark), *Nämä marjat ollah syötävät*. 'These berries are edible.' (ZaiK), *Vuassu on valmis juodavakse*. 'The kvass is ready to be drunk.' (Pyöl) (See Zaikov 1999: 88; Markianova 2002: 165; Zaikov 2002: 130; Pyöli 2011: 133–134; Zaikov 2013: 202).

8.8.7 The passive 2nd participle

The passive 2nd participle (the passive participle of bounded action) is formed in all main dialects of Karelian by adding the suffix *-u ~ -y* to the strong-grade passive verb stem[156], which results in the loss of passive affix vowel *a ~ ä* and the formation of participle forms ending with *-ttu ~ -tty*, *-tu ~ -ty*, *-du ~ -dy*. Most grammars regard these as participle affixes (*lugie-ttu* / *lukie-ttu* / *luve-ttu* / *lue-ttu* / *luge-du* / *luge-tu* 'one that has been read'). In North Ludic and Mikhailovskoye dialects the affix *-t* may occur due to apocope. (See also Õispuu 1994: 48–49; Adel' 1998: 104–105; Zaikov 2000: 151; Atlas: map 185; Programmy: 155; KKMK.)

The passive 2nd participle is used to express a bounded action, e.g. *katkattu oksa* 'a snapped twig' (Anis), *Pestüle lattiele pidäü ojendua matot*. 'Rugs need to be laid out on the washed floor.' (Mark), *Avatusta ikkunasta kaččo pieni poika*. 'A small boy was looking out of an open window.' (ZaiK) (see Zaikov 1999: 89; Markianova 2002: 167–168; Zaikov 2002: 134; Pyöli 2011: 135; Zaikov 2013: 207–208). Syntactically, the passive 2nd participle functions as

[155] On the formation of the passive inflectional stem, see chapter *8.6 Passive.*

[156] On the formation of the passive inflectional stem, see chapter *8.6 Passive.*

an attribute. Additionally, it is used actively to form 3pl forms of compound tenses, although neither the passive nor the active 2nd participle is inflected in person or number in complex verb forms; instead, it occurs always in the nominative singular.

A temporal structure expressing a past action with an independent passive 2nd participle partitive is widely spread in all Karelian main dialects (Karelian Proper: *šyödyö* / *syödyö* / *šyötyö* / *syötyä* / *šyödyä* / *šyödyöh* / *syödyöh* / *syödyöhö* 'once sb has eaten', Livvi-Karelian: *syödyy* / *syödyv* / *syödyi*, Ludic: *syödyhyö* / *syödyi* / *syödytt*; *oššettuo* / *oššettuoh* / *oššettua* / *oššettoa* / *oššettuoho* / *ostettuu* / *ostettuv* / *ostedutt* or *oštahuo* / *oštahuoh* / *ostahuu* / *ostahui* / *ostahut* 'once sb had bought'; *luvettuo* / *luvettua* / *luettuo* / *luettua* / *lugettuoh* / *luvettuoh* / *luvettuu* / *lugiettuo* / *lugiettuu* / *lugiettui* / *lugedutt* or *lugehuo* / *lugehuoh* / *lugehuu* / *lugehui* / *lugehut* / *lugehuh* 'once sb had read'), e.g. Valday: *Ilpas'ťahuo istuočen kezröämäh*. 'Once I have dined, I sit down to weave.', Tikhvin: *Rugehist olgie üökš annamma juottahua.* 'Once we have given them something to drink, we give them rye straws for the night.', Syamozero: *Kodih tulduw vuvven ei paissuh.* 'Did not speak for a whole year after coming home.', South Ludic: *Tuldui kodih vierin magata*. 'Once I got home, I went to bed.' In terms of semantics, this form is a past gerund.

The passive 2nd participle experiences certain changes before the partitive suffix. With polysyllabic single-stem verbs ending with a short vowel, *h* occurs in front of the participle affix. It is apparently a historical passive affix, or a consonant that has replaced another consonant in a passive affix that has been lost before the vowels *u* ~ *y*. This affix variant is added to the strong-grade verb stem (*otta-hu-u* / *otta-hu-o* / *otta-hu-a* / *otta-hu-o-h* / *otta-hu-i* 'once sb has taken', cf. *ote-ttu*). A form that contains both affixes also occur in a group of subdialects, e.g. Padany: *tul-du-huo* 'once sb has come', Porozero: *syö-dy-hyö* 'once sb has eaten', Myandusel'ga: *luve-ttu-huo* 'once sb has read', Tolmachi: *šyö-dä-hyöh* 'once sb has eaten'. (See Anisimov 1948: 205; Beljakov 1948: 113–114; Palmeos 1962: 68; Rjagoev 1977: 160; Barantsev 1985: 172; Rjagoev 1987: 376; Õispuu 1994: 49–50; Adel' 1998: 106–107; Atlas: maps 181–182; Programmy: 153.)

Only early normative Karelian grammars accept forms ending with *-huo* ~ *-hyö* as standard, e.g. *Gazietan lugehuo mie lähtin pihal.* 'Once I had read the paper I went outside.' (Anis). In contemporary standard varieties, these forms have been unified in favour of passive 2nd participle partitives that contain the passive affix. The dental sound of the passive affix occurs in all conjugation types, e.g. *Murginan süödüü lähtemmö järvele*. 'Once we have had breakfast we go to the lake.' (Mark), *Syötyö lapset lähettih pihalla*. 'Once the children had eaten they went out.' (ZaiK). (See Zaikov 1999: 89–90; Markianova 2002: 168; Zaikov 2002: 134–135; Pyöli 2011: 135; Zaikov 2013: 210.)

9 Uninflected words

Uninflected word classes contain words that have no grammatical inflection. These include adverbs, prepositions and postpositions, conjunctions, particles, and interjections. Particles, or auxiliary words that do not name referents, actions, or their properties, include all uninflected word classes apart from adverbs. Auxiliary words are not lexically independent, they may not function as sentence constituents, and they usually lack stress. Auxiliaries are used to express a variety of semantic-syntactic relations between words and sentences and different shades of modality that include the speaker's subjective estimation. (See Rjagoev 1987: 198, 379; LÈS.)

9.1 Adverb

The adverb is a lexical-grammatical class of uninflected words that expresses the characteristic of an action, quality, or referent (LÈS). Syntactically, an adverb functions as an adverbial or a part of the compound predicate of a verb. An adverb is usually connected to verbs, adjectives, and other adverbs.[157]

Most adverbs in Karelian are derived from nominals: nouns (*vägeh* 'forcefully' from *vägi* 'force, strength'), adjectives (*hyvin* / *hyviin* 'well' from *hyvä* 'good'), numerals (*kakšin* / *kakšiin* / *kaksin* 'two at a time' from *kakši* / *kaksi* 'two'). A group of adverbs is derived from other adverbs (*äijäldi* / *äijäl* 'much' from *äijä* / *äijy* 'much') or verbs (*varaten* 'carefully, fearfully' from *varata* 'to fear'). A distinct group is formed by a class of adverbs that are derived from pronouns, expressing place, time, a reason, a means or a manner of action. They are derived from demonstrative pronouns, relative pronouns, and interrogative pronouns (*tuolloan* / *tuollain* / *tuolloin* / *tuolloi* / *tuollai* 'back then', *kunne* / *kunna* / *kuna* 'to where').[158]

Adverbs with a distinct morphological marker are commonly called grammatical or derivational adverbs. Most adverbs are derived from fixed nominal case forms. This phenomenon is called the lexicalisation of case forms. Thus, adverbs have retained traces of historical case endings (*kunne* 'to where' contains the historical lative suffix *-nne*) and suffixes of cases that have fallen out of use (comitative ending with *-neh* / *-nneh*, prolative ending with *-čči* / *-či*). Adverbs that are derived from local cases are particularly common, e.g. adverbs deriving from

– the inessive: *ilmeššä* 'explicitly' (GenV), *kohašša* 'opposite to' (Manž);

– the elative: *järeštäh* 'consistently' (GenV);

– the inessive-elative: *uvvessah* 'again' (GenA), *kerras* / *kieras* 'immediately' (RjagL/Virt), *yhtes* 'together' (AnisG), *vieres* 'next to' (Bar);

– the illative: *ruttoh* 'quickly' (GenV), *alah* 'down' (Palm, Bel), *velgah* 'on credit' (Manž), *harvah* 'seldom' (GenA), *oigieh* 'directly; to the right' (RjagL), *vägeheze* 'forcefully' (AnisG), *jälgeh* 'after' (GenL), *tagaze* 'back' (Virt), *edeh* 'forwards' (Bar);

– the adessive-allative: *jallalla* / *jalalla* 'on foot' (GenV), *šielä* 'there' (Rjag), *rinnalla* 'next to' (Manž);

– the ablative: *küllältä* / *küllälti* 'enough' (GenV), *šieltä* 'from there' (Rjag, Palm), *kaikkielta* 'from everywhere' (Manž);

– the adessive-ablative: *jallal* / *ďalgal* 'on foot' (GenA / Virt), *äijäl* 'much' (RjagL), *kiirehel* 'hurriedly' (AnisG), *kylläl* 'enough' (Bar);

[157] The principles of adverb presentation differ so greatly between the descriptive grammars that presenting them in a table is not feasible.

[158] See chapter 7.7 *Pronoun*.

– the allative: *kahalleh* 'open' (Palm), *rinnale* 'next to' (AnisG), *vastale* 'towards' (Virt), *edele* 'forwards' (Bar).

Adverbs that are derived from historical cases are also rather frequently used, such as those deriving from

– the essive: *huomena* 'tomorrow' (GenV, Manž), *ylähänä* 'above' (Rjag), *alahoana* 'below' (Palm), *keskenäh* 'with each other' (GenA), *yksinäh* 'alone' (AnisG), *loitton* 'afar' (Virt, Bar);

– the partitive: *totta* 'surely' (GenV), *ülähädä* 'above' (Rjag), *alahoada* 'below' (Palm), *järgieh* 'at once' (GenA), *ühtüpalaa* 'without pause' (RjagL), *kaikkedai* 'in total' (Virt);

– the translative: *piloikseh* 'facetiously' (GenV), *tagoakši* 'behind' (Palm), *lizävökši* 'in addition' (Manž), *kahtekse* 'in twain' (GenA), *toizekse* 'as second' (AnisG), *lähembäkš* 'closer' (Virt), *loitokse* 'further away' (Bar).

Almost as common are adverbs deriving from nominals in

– the nominative: *myöhä* 'late' (GenV, RjagL), *viikko* 'a long time' (Rjag, Palm), *enämbi* 'more' (GenA);

– the instructive: *käzin* 'by hand' (GenV), *vähäzin* 'a little' (Rjag), *pahoin* 'poorly' (Palm), *hyviin* / *hyvin* 'well' (Bel / RjagL), *ammuin* 'in the old days' (Manž), *kaksin* 'two at a time' (GenA), *očin* 'face-to-face; facing smth' (AnisG), *pit'užin* 'along' (GenL), *harvuoin* 'seldom' (Virt), *kombuižin* 'on all fours' (Bar);

– the abessive: *eänettä* / *iänettä* 'silently' (GenV/Manž, RjagL), *tiedämättäh* 'without knowing' (GenA), *kengätä* 'on barefoot' (AnisG);

– the prolative: *peitočči* / *peitoči* 'by stealth' (GenV/RjagL, Bar), *šiiričči* / *širričči* / *siiriči* 'past' (Palm / Manž / Bar), *kahičči* 'twice' (GenA), *alahači* 'below' (AnisG), *bokačči* 'past' (Virt);

– the comitative: *kaikkineh* 'wholly' (GenV, GenA, Bar), *perehinneh* 'with one's family' (AnisG). (See Genetz 1872: 30–31; Genetz 1880: 243–245; Genetz 1884: 184–185; Anisimov 1948: 200–207; Palmeos 1962: 71; Manžin 1964: 70–72; Rjagoev 1977: 164; Barantsev 1985: 195; Virtaranta 1986: 93–104; Rjagoev 1987: 377–378.)

There are complete adverb paradigms that are derived from the same stem but have different case endings, e.g. *edähänä – edähädä* / *edäheädä – edähäkši* 'far away – from far away – far away' (GenV), *tagoana – tagoada – tagoakši* 'from behind – behind – behind' (Palm), *alahan – alahakse – alah* 'below, below, below' (GenA) (see Genetz 1880: 241; Genetz 1884: 182; Palmeos 1962: 71–72).

Alongside fixed case endings, several adverbs also contain the 3rd person possessive suffix, e.g. *keškenäh* 'with each other' (GenV), *üksinäh* 'alone' (Palm), *uuveštah* / *uvvessah* 'again' (Manž / GenA, AnisG), *unissah* 'in one's sleep; while dreaming' (Bar) (see Genetz 1880: 243–245; Genetz 1884: 184–185; Palmeos 1962: 71; Barantsev 1985: 195–196).

Some adjectivally-derived adverbs of quality have a synthetic comparative form. Adverb comparatives are formed with the suffixes *-mbi* / *-mmi*, *-mmin*, *-mma* ~ *-mmä* / *-mba* ~ *-mbä*, e.g. *loitomboana* / *loitomma* 'further away' (GenV), *paremmin* 'better' (Rjag), *edembi* 'further' (Palm), *aivomma* / *ajjombah* 'earlier' (Manž/RjagL), *lähembä* 'closer' (GenA), *bohatembi* 'richer' (AnisG), *enämbäl* 'more' (GenL). Adverb superlatives are formed analytically, e.g. *ülen bedno* 'most poorly' (Rjag) (see Genetz 1880: 241; Genetz 1884: 184; Manžin 1964: 75; Rjagoev 1977: 163; Rjagoev 1987: 378).

Certain adverb derivational suffixes are typical of Karelian, such as

– *-di*: *ajadi* 'driving' (Virt), *ištudi* 'sitting' (Bar);

– *-gali* ~ *-gäli* / *-kkali*: *peitokkali* 'in secrecy' (GenV, Rjag), *alahoakali* 'below' (Palm), *ťagali* 'through that way' (Manž), *tägäli* 'through this way' (GenA, Virt);

– *-kkah* ~ *-kkäh* / *-kkai* ~ *-kkäi* / *-kkeh*: *kaglakkah* 'holding each other's shoulder' (GenV), *perehikkäi* 'with their families' (Rjag), *rissikkäh* 'crossed' (Palm), *vuorokkeh* 'in turns' (Manž), *rinnakkah* / *rindakkai* 'side by side' (GenA / Virt, Bar), *selläkkäi* 'back to back' (AnisG);

– *-ldi* / *-li*: *bohataldi* / *bohattali* 'richly' (Rjag, Palm / GenL), *äijäldi* 'a lot' (Manž), *lämmäli* 'warmly' (Virt), *harvali* 'seldom' (Bar);

– *-šti* / *-sti* / *-šči*: *alasti* 'naked' (Rjag), *jällešti* 'after' (Palm), *lujašti* 'tightly; a lot' (Manž), *kebiesti* 'easily' (GenA), *siliešti* 'smoothly' (AnisG), *teravašči* 'quickly' (Virt);

– *-ttoan* / *-ttuan* / *-ttain* / *-ttadi*: *vuožittoan* 'yearly' (GenV), *kolmittain* / *kolmittadi* 'in threes' (AnisG / Virt), *kaksittain* 'in twos' (Bar);

– *-ten* / *-tteh* / *-te*: *varaten* 'carefully' (Rjag), *kižaten* 'playfully' (Manž), *parahite* 'just enough' (GenA), *pal'l'ahite* 'on bearfoot' (AnisG), *nuorembate* '(you) as the younger one' (Virt). (See Genetz 1880: 242–243; Genetz 1884: 183; Manžin 1964: 72–74; Rjagoev 1977: 187–188; Barantsev 1985: 194; Virtaranta 1986: 86–97.)

Another group of adverbs that either have no morphological markers or have lost their connection to grammatical categories and word classes still in use are called syntactic adverbs, e.g. *aina* / *ainos* 'always' (GenV / GenA), *toas* 'again' (GenA), *vielä* / *vie* 'still' (GenV / GenL), *läby* 'through' (Bar) (see Genetz 1880: 241; Genetz 1884: 182–183).

Whole open compounds and sayings, for instance phraseological expressions, can also enter the class of adverbs, e.g. *tuolloin* / *tuollain* / *tuolloan* < *tuolla ajoin* 'in that time' (GenV), *yksin-yhyttäh* 'alone' (Manž), *tänäpäi* < *tänä päivänny* 'today' (GenA) (see Genetz 1880: 246; Genetz 1884: 185; Manžin 1964: 72).

Adverbs derived from local cases fairly often fall together with prepositions and postpositions. However, where adverbs may occur as independent adverbials in a sentence (*jälgeh tulen* 'I will come later'), adpositions form a whole with nominals, requiring the use of a particular case (*vihman jälgeh tulen* 'I will come after the rain'). In addition, certain adverbs fall together with particles. Particles do not have independent meanings, however; they only emphasize and specify the meanings of other words (*Tulen äski, ku soitat*. 'When you call, only then will I come.' [adverb], *Äski ku ellendäs*. 'If only [sb] understood.' [particle] [BKRS]).

The formation of derived adverbs in standard varieties of Karelian is based on the dialects. Bubrih's grammar states that it is typical of Karelian that adverbs can be formed in various ways, but that most common is the use of the derivational affixes *-sti* and *-ldi* (*bohatasti* / *bohataldi* 'richly') (Bubrih 1937: 78). Other normative grammars list the main adverb derivational affixes. Most of them are derived from case endings followed by a possessive suffix.

Adverb comparative forms are formed in the normative grammars with the affixes *-mbi*, *-mba* ~ *-mbä* / *-mpa* ~ *-mpä* / *-mma* ~ *-mmä*, *-mmin* (adverbs ending with *-sti*), e.g. *loitomba* 'further away' (Aht), *boiko – boikombi* 'fast – faster', *ravie – raviembi* 'briskly – more briskly' (Anis), *kovah – kovembah* 'hard – harder', *terväh – teriämbäh* 'quickly – more quickly' (Mark), *loittona – loitompana* 'far away – further away', *etähäksi – etemmäksi* 'far – further', *myöhäh – myöhempäh* 'late – later', *hyvin – paremmin* 'well – better' (ZaiK) (Anisimov 1939: 147; Markianova 2002: 183; Zaikov 2002: 104; Zaikov 2013: 218). Ahtia's grammar, Zaikov's grammar written in Russian, and grammars of the contemporary standard varieties give examples of forming superlative forms with the suffixes *-ima* ~ *-imä* (Livvi-Karelian), *-imba* ~ *-imbä* / *-impa* ~ *-impä* / *-imma* ~ *-immä* (Karelian Proper), e.g. *loittoima* 'the farthest away' (Aht), *kovah – kovimah* 'hard – most hard', *terväh – terävimäh* 'fast – in the fastest manner' (Mark), *alahalla – alimpana* 'below – the bottom one' (Ahtia 1938: 127; Zaikov 1999: 91; Markianova 2002: 183).

Karelian grammars commonly divide adverbs into classes based on their meaning:

1) adverbs of quality of action, e.g. *Hiän ruadau ylen hyvin i ylen boikko*. 'He/she works very well and fast.' (Anis), *Mänkyä nyt kouluh ruttoseh!* 'Now hurry to school!' (ZaiK), *Paiskua hil'l'akkazin, toizet jo muatah*. 'Speak quietly, the others are already sleeping.' (Pyöl);

2) adverbial adverbs

– adverbs expressing place and direction, e.g. *Hyö ollah lässä*. 'They are close.' (ZaiK), *Siä muuttuu pahaksi, läkkä jälelläh kotih*. 'The weather is getting worse; let (the two of) us head back home.' (ZaiK), *Hüö kunnetah loitos lähtiettih elämäh*. 'They moved some place far away.' (Pyöl);

– temporal adverbs, e.g. *Egläi tuldih stroikal enzimäizet ruadajat*. 'Yesterday the first workers arrived at the construction site.' (Anis), *Mie tulin kouluh aivoin*. 'I came to school early.' (ZaiK), *Mulloi olin Piiteris nedälin*. 'Last year I was in Saint Petersburg for a week.' (Pyöl);

– adverbs expressing reason or goal, e.g. *Sinä ihan nareko muga ruavoit?* 'Did you do that on purpose?' (Pyöl);

– adverbs of manner, e.g. *Iäneh itkiettih pöllästynyöt lapset*. 'The frightened children were crying out loud.' (Anis), *Pojat kuletah kaklakkah*. 'The boys walk holding each others' shoulders.' (ZaiK);

– adverbs of quantity and degree, e.g. *Kahičči päiväs valelin kukkaizie*. 'I watered the flowered twice a day.' (Anis), *Tänä kesänä oli äijä hilluo.* 'This summer there were a lot of cloudberries.' (ZaiK), *Pagize vähembi, kuundele enämbi*. 'Speak less, listen more.' (Pyöl);

– adverbs expressing being together or apart, e.g. *Yksittäin ruvettih tulemah gost'at.* 'The guests began to arrive one by one.' (Anis), *Lapset, seizatukkua kaksitellen jonoh!* 'Children, form a queue in pairs!' (Pyöl);

– modal adverbs e.g. *Niin pölässyin, jotta ihan värisyttäy*. 'I got so startled that I am shivering.' (ZaiK), *Kui jo pagizimmo, muga ruammogi*. 'We will do as we discussed.' (Pyöl);

– interrogative adverbs, e.g. *Konša šie tulet meilä?* 'When will you visit us?' (ZaiV)

– adverbs of negation, e.g. *En lähe tiältä nikunne.* 'I will not go anywhere from here.' (ZaiV), *Täl vuvvel emmo nikunne lähte*. 'We will not go anywhere this year.' (Pyöl).

Adverbs move easily from one class into another. The same adverbs can have both qualitative and adverbial meanings. (See Genetz 1880: 241–243; Genetz 1884: 183–184; Ahtia 1938: 132; Anisimov 1939: 145–146; Anisimov 1948: 200–207; Beljakov 1948: 157; Palmeos 1962: 69–71; Manžin 1964: 70; Rjagoev 1977: 162–163; Barantsev 1985: 196–197; Rjagoev 1987: 379; Zaikov 1999: 90–91; Markianova 2002: 182–183; Zaikov 2002: 103–104; Pyöli 2011: 138–140; Zaikov 2013: 215–216.)

9.2 Postpositions and prepositions

As a whole, the use of a variety of postpositions, some of which may also occur as a preposition, is typical of the Karelian language. Postpositions and prepositions belong to the class of auxiliaries. They are used to express various relations between the main constituent and the attribute in an open compound and, therefore, to express a subordinate syntactic relation. In Finnic linguistics, prepositions and postpositions are called adpositions (VISK § 687). Adpositions are not independent sentence constituents; rather, they are used in conjunction with nominals, from which they require a certain case form. Thus they form a single structure. Depending on the position of the adposition in an open compound, they are divided into post-nominal postpositions and pre-nominal prepositions. (OFUJA: 104–105; Rjagoev 1987: 198; Zaikov 1999: 92; Rodionova 2015: 72–77.)

Table 69 lists the adpositions used in the descriptive grammars of Karelian. Auxiliaries are followed in parenthesis by the case with which it is used. Prepositions are placed in cells with grey backgrounds.

As illustrated by the examples in Table 69, there are no significant differences in the adpositional systems of Karelian dialects, apart from the differences between the main dialects and dialects that derive from their phonological features. Corresponding adpositions are also

used widely in other Finnic and Finno-Ugric languages. Most adpositions in the Karelian language are postpositions, some of which can also function as prepositions (*koivuo ennen* / *ennen koivuo* 'before the birch' (Bel), *järveštä pööličči* 'over the lake' / *pööličči jovešta* 'across the river' [Palm], *ikkoin ual* 'under the windows' / *ual nahkan* 'under the hide' [RjagL], *meis siiričči* 'past us' / *siiričči peldos* 'by the field' [Bar]). Certain postpositions in Karelian are polysemous, which explains the abundance of synonyms.

A significant portion of postpositions are derivational, having formed from fixed nominal case forms, in which a stem and a suffix may be identified, e.g. local cases (adessive-allative: *alla* / *ualla* / *oalla* / *oala* / *i̯alla* / *ala* 'under', ablative: *alda* / *i̯alda* / *alpiäi* 'from below', adessive-ablative: *al* / *ual* / *oal* / *aal* 'under, from below', allative: *alle* / *ale* / *oale* 'under'), prolative (*alačči* / *aličči* / *alači* 'underneath'), instructive (*pitin* / *pitkin* 'along'), essive (*luona* 'at'), partitive (*luoda* 'from'), translative (*luokši* 'to'). Such a process has lead to the formation of complete postposition paradigms (adessive-allative: *peällä* / *piällä* / *piellä* / *pöällä* 'on top of', ablative: *peäldä* / *piäldä* / *pöäldä* 'from top of', adessive-ablative: *piäl* / *peel* 'on top of; from top of', allative: *peäle* / *piäle* 'on top of', inessive: *piäššä* / *pieššä* 'at the end', elative: *piäštä* 'from the end', inessive-elative: *piäs* / *peäz* 'at the end [of distance], after [temporal]', illative: *piäh* 'to the end'), which fall together with adverbs. Other adpositions are non-derivational, i.e. original, morphologically indivisible wholes (*läbi* / *läby* 'through', *ymbäri* 'round'). (See OFUJA: 104; Barantsev 1985: 198; Rodionova 2015: 79–108, 133–138.)

Most postpositions are used with nominals in the genitive, less frequently with nominals in the partitive, adessive (adessive-allative), elative (inessive-elative), illative, or ablative (adessive-ablative). There are also postpositions that require a nominal in the translative. Prepositions are used most often with a nominal in the partitive, less often in the elative (inessive-elative), genitive, or illative. The case may vary (*mi**dä** varoin* 'for what' / *ičе**llä** varoin* 'for oneself' / *štaniloi**kši** varoin* 'for trousers' [Rjag], *poikki pelduo* 'across the field' / *poikki hebože**šta*** 'over the horse' [Palm], *ylči koivu**n*** / *koivu**šta*** 'over the birch' [Bel], *därve**n** piäliči* 'across the lake' / *tiešuara**š** piälči* 'across the crossroads' [Bar]). (See also Rodionova 2015: 77–78.)

In Karelian dialect speech, postpositions typically turn into case endings. For instance, in all main dialects there is a productive comitative case, whose suffixes *-nke* / *-nker* / *-nkel* / *-ŋkeла* ~ *-ŋkelä* / *-nken* / *-nkena* ~ *-nkenä* have formed from the merging of the genitive case ending *-n* and the reduced postposition *kera* 'with'.[159]

The adpositional systems of standard Karelian varieties described in the normative grammars do not differ from those of the dialects on which they are based.

9.3 Conjunctions

Conjunctions are auxiliaries that are used to connect sentence constituents or parts of a complex sentence (Markianova 2002: 190; Zaikov 2013: 223).

Conjunctions are divided into two main groups according to their syntactic function: coordinating conjunctions, which connect parallel sentence constituents or parts of a parallel complex sentence, e.g. *I šuvačči i kaikki, no ožua ei tullun.* 'He/she loved and (had) everything, but there was no happiness.' (Rjag), *Kodvazen tarattelin da kaččelimoz, i puututin pon'ah.* 'For a while I talked and looked round, and I got a sense of it.' (RjagL), *Uberi sobat perttih eika kastav vihme.* 'Put the clothes inside the house, lest they get wet in the rain.' (Bar), and subordinating conjunctions, which connect the parts of a subordinating complex sentence, e.g. *Rubien hüvin roadamah, štobi hüö miлma ei ajettais' pois'.* 'I began to work hard so that they would not drive

[159] See chapter 7.3.14 *Comitative*.

me away.' (Palm), *Kartohku ku nouzow muam piel, pidäü muattua*. 'When potato shoots appear above the ground, they need to be earthed up.' (RjagL), *Ku on hallakas kezä ville kazvau pahuoin*. 'If the summer is frosty, the crops are poor.' (Bar). (See Palmeos 1962: 75–77; Rjagoev 1977: 168–171; Barantsev 1985: 202–203; Rjagoev 1987: 386–389; LÈS.)

The lists of conjunctions in the descriptive grammars are for the most part the same (see Table 71), but they do not cover all of them, which is evident from the materials in dialect dictionaries and linguistic sample texts. Conjunctions in Karelian are either derived from different word classes, such as pronouns (*konža* / *konže* / *konzu* / *konz* 'when', *kuin* / *kui* / *ku* 'how, than, then, if, because' [OFUJA: 106]), verbs (*anna* / *ana* 'let'), or they have been borrowed from other languages, such as Russian (*i*, *da*, *ili*, *libo*).

Conjunctions are divided structurally into single-component conjunctions (*eli* / *ili* / *ali* 'or', *kuni* 'until; so long as; before') and connected conjunctions: pair conjunctions[160] (*ili ... ili* 'either–or') or compound conjunctions which consist of several components (*kuni ... šini* / *šini ... kuni* / *kuni ... sini* / *sini ... kuni* 'so long as; until').

Depending on their meaning, conjunctions can be either monosemous, e.g. *konža* / *konže* / *konzu* / *konz* 'when' (*Haugi suadah kevädel kous häi kuduh mänöy.* 'Pikes are caught in the spring when they start to spawn.' [Bar]), or polysemous, e.g. *kuin* / *kui* / *ku* that is used to express time, reason, a condition, or comparison (*Kuin ed ota, mie šiula šoapkoa en ana.* 'If you do not take it, I will not give you the hat.', *Mie seiz'on kuin muša butilka*. 'I am stood like a black bottle.' [Palm]; *A vot ku teän tullen, tüö moožet minuw ni süöttä etto.* 'When I come here, you might not let me eat.', *A ku velgoi ed voinne tuvva, ed elä.* 'If you cannot pay your debts, you cannot live [here].', *Ihan ku hobd'azet*. 'Just like silver [ones].' [RjagL]; *Ku olnet briha — otan vellekse*. 'If you are a lad, I shall take you as my brother.', *Akke oli därei ku pučči*. 'The wife was as rotund as a barrel.' [Bar]). Some conjunctions can also functions as either subordinate or coordinating conjunctions, e.g. *što* is described in Rjagoev's grammar as a general subcoordinating conjunction ('that'), a comparative conjunction ('than'), a consequential conjunction ('because'), and an explanatory coordinating conjunction ('then') (Rjagoev 1977: 170–171).

In addition to conjunctions, relative pronouns that also function as subordinate clause constituents are also used to connect sentences, e.g. *ken* 'who, that', *kumbane* 'which, that', *kunne* 'where to' (Manž), *kummane* 'that, which', *missä* 'where, from whence, into which, to where' (Rjag), *kudai* 'that, which', *se* 'it', *ken* 'who, that, which, everyone that' (RjagL) (Rjagoev 1977: 171–172; Rjagoev 1987: 389).

In some grammars, including normative ones (see Table 72), coordinating and subcoordinating conjunctions are classified based on their syntactic function. In grammars of the contemporary standard varieties of Karelian, coordinating conjunctions are divided into copulative ones, e.g. *Ni argipäivin, ni pruazniekkoin ei ole rauhua.* 'There is no peace neither outside nor during the holidays.' (Mark), *En anna vaikka olenki luvannun*. 'I will not give (it), although I had promised to.' (ZaiK), disjunctive ones, e.g. *Minä kirjutan kirjazen tänäpäi libo huomei*. 'I will write a letter today or tomorrow.' (Mark) and adversative ones, e.g. *Joka taloh tuli ativoita, vain meilä ei niken tullun.* 'Guests came into every house but ours.' (ZaiV). Subordinating conjunctions are generally subordinating explicative conjunctions, e.g. *Muissan, kun meijän täti joiku.* 'I remember when our aunt would yoik.' (ZaiV), temporal conjunctions, e.g. *Lämmitän külün sit ku tulen kodih*. 'I will warm the sauna when I get home.' (Pyöl), causal conjunctions, e.g. *En voinun tulla, kun ei ollun aikua*. 'I could not come because I did not have the time.' (ZaiK), conditional conjunctions, e.g. *Ku et tahtone lähtie, jiä kodih*. 'If you do not want to go, stay home.' (Mark), comparative conjunctions, e.g. *Verkko šeizou viešš̈ä, kuin šeinä*. 'The net stands in the water like a wall.' (ZaiV), final conjunctions that express goals, e.g. *Pidäü ahkerah opastuo, ku piästä üliopistoh*. 'One needs to study hard to get into university.' (Pyöl)

[160] The orthography of Karelian pair conjunctions follows that of Russian.

and consecutive expressing causality, e.g. *Siula pitäy syyvvä enämpi, jotta voisit ruatua paremmin.* 'You need to eat more so you can work harder.' (ZaiK). Livvi-Karelian grammars also mention concessive conjunctions, e.g. *Matkah pidäü männä, hos kui vihmakkah*. 'We need to go, no matter how much it rains.' (Mark). (See Palmeos 1962: 75–77; Rjagoev 1977: 168–171; Barantsev 1985: 202–203; Rjagoev 1987: 386–389; Zaikov 1999: 97; Markianova 2002: 190–192; Zaikov 2002: 138–139; Pyöli 2011: 147–149; Zaikov 2013: 124–125.)

Normative grammars list the following relative pronouns: *ken* 'who, which', *mi* 'what', *konsa* 'when', *mimmoni* 'what kind', *kumpani* 'who, that, which', *kunne* 'where to', *missä* 'where' (Zaikov 1999: 99), *ken* 'who; which, that', *mi* 'what', *mittuine* 'what kind', *kudai* 'who, which, that', *kus* 'where', *kuspäi* 'from whence', *kuh* 'into which', *kunne* 'where to', *konzu* 'when' (Markianova 2002: 192; Pyöli 2011: 149), e.g. *Kenen ranta, sen i kala*. 'Who owns the beach owns the fish.' (Zaik), *Opastui lugi sen kerdomuksen, kudaman käski opastai.* 'The student read the story that was assigned by the teacher.' (Mark).

9.4 Particles

Particles are a group of auxiliaries sharing the same semantic-syntactic function of expressing the speaker's attitude toward the utterance (Ahmanova 2007: 512).

Particles may be included in a word, i.e. be enclitic (*tuletgo* 'will you come'). In this case they are agglutinative postposition and preposition particles, i.e. enclitic particles. Such particles can be added to any word, and also to each other. Karelian typically features particles that occur as independent lexemes and are added to the head (*vet'* / *ved' tulet* 'surely you will come'). Karelian particles are derived from pronouns, nominals, and verbs, but they also include Russian and Finnish borrowings.

Particles are close to other auxiliaries (i.e. conjunctions, interjections, and adverbs) in meaning, which, for some part, makes it difficult to distinguish them. A word may be considered a conjunction in one grammar and a particle in the other. Particles are not a distinct word class in Genetz's descriptions of Karelian dialects; instead, they have been merged with conjunctions.

Normative grammars of Karelian (see Table 74) distinguish enclitic, or agglutinative, particles. Bubrih's grammar does not distinguish particles as an independent word class, but it mentions that "other auxiliaries" also occur alongside conjunctions, prepositions, and postpositions, and gives the "interrogative particle" *go* as an example (Bubrih 1937: 25). Only Anisimov's grammar and the grammar in Russian by Zaikov mention independent, lexemic particles alongside enclitic particles.

As stated earlier, particles are used to express the speaker's attitude toward the utterance. Thus particles supplement a word or a whole sentence with a particular nuance. In the Karelian language, particles are usually divided into the following groups based on their meaning and function:

– limiting and emphasising particles, e.g. *Näiltä kysy hos mitä muuta.* 'Ask them anything else.' (Zaik);

– reinforcing particles, e.g. *Mie-gi lähten teijän ke kinoh*. 'I will go to the cinema with you.' (Anis), *Hüögi mugaže ruattih.* 'They did so as well.' (Mark), *Onkoš ketänih koissa?* 'Is anyone home?' (ZaiV);

– suggestion particles, e.g. *Tulguavai kaikin tänne.* 'Come here all.' (Mark);

– concessive particles, e.g. *Mie-že sanoin hänel, da hän unohti.* 'I did tell him/her, but he/she forgot.' (Anis), *Tuletko meilä? — No, tulen.* 'Will you come by? — Well, all right then.' (Zaik);

– interrogative particles, e.g. *On-go veičči stolas?* 'Is the knife on the table?' (Anis), *Kellebo kirjutat kirjastu?* 'To whom are you writing that letter?' (Mark), *Viikonko šie šielä olit?* 'How long where you there?' (ZaiK);

– negatory particles, e.g. *Ni kus ei nävy ni yhtä tulda.* 'Not a single light can be seen anywhere.' (Anis), *Se oli epävirallini pakina.* 'It was an unofficial talk.' (ZaiK), *Heis niken ei pagize karjalakse.* 'None of them speaks Karelian.' (Pyöl);

– modal particles expressing the speaker's attitude toward the action, e.g. *Neuželi sie et tunne miun vellie?* 'You really do not know my brother?' (Anis);

– emotional-expressive particles, expressing varied subjective emotional nuances on the topic, e.g. *Onpa poijat hyvä naini.* 'Now that is a good woman.' (Zaik);

– reference particles used to refer someone else's speech: *Hiän muka ei maha paissa karielaksi.* 'He/she claims that he/she cannot speak Karelian.' (Zaik);

– word-formation particles that are used to form negative polarity and indefinite quantifier pronouns and adverbs, e.g. *Ni kus ei nävy ni yhtä tulda.* 'Not a single light can be seen anywhere.' (Anis), *Tulouko kennih meilä huomena?* 'Will there be anyone coming by tomorrow?' (ZaiK), *Hüvii jallaččiloi en nikus lövvä.* 'I cannot find a good pair of footwear anywhere.' (Pyöl)[161]

– particles used in grammatical forms to express the imperative verb, e.g. *Anna ikkunah tuulou.* 'Let there be wind against the window.' (Anis). (See Anisimov 1939: 152–153; Manžin 1964: 81; OFUJA: 106–107; Rjagoev 1977: 172–177; Barantsev 1985: 204; Rjagoev 1987: 379–383; Zaikov 1999: 99–100; Markianova: 192–193; Zaikov 2002: 140; Pyöli 2011: 149–150; Zaikov 2013: 226–227.)

9.5 Interjections

Interjections are a class of uninflected words that express emotional reactions towards the surrounding reality (LÈS). Interjections are frequent in the Karelian language. Some are derived from emotional ejaculations that have to do with the reflexes of the human body caused by external stimulation (primary interjections) (*ah*, *oh*). Others are derived from nominals, verbs, adverbs, pronouns, and open compounds (derived interjections) (*kačo* 'look'). Table 75 lists the most frequently used interjections mentioned in the descriptive grammars of Karelian.

According to Bubrih, "interjections convey acts of sensing, feeling, and of will. They are unformed in terms of morphology. In terms of syntax, they stand outside all sentence constituent categories" (Bubrih 1937: 25). Ahtia's and Anisimov's grammars and those of the contemporary standard varieties of Karelian list some basic interjections (Table 76).

Interjections express the speaker's attitude towards reality, their emotional experiences, and their will. Interjections do not name feelings but signal them. Their concrete meanings depends on intonation, context, facial expressions, and gestures. The following groups of interjections may be distinguished:

– emotional interjections (agreement, joy, elation, anger, irritability, contentment, discontentment, confusion, wonderment, longing, bitterness, sadness, pain, etc.), e.g. *Oi, kuin poltau čiilahaine!* 'Ouch, how the nettle stings (lit. burns)!' (Anis), *O-o, min olet suannuh kalua!* 'How much fish you have caught!' (Mark), *Ohoh, puutuit varastaja!* 'Got you, thief!' (ZaiK);

– signal or vocative interjections that are used to draw one's attention, e.g. *Ei, brihat, tulgua tänne!* 'Hoy, lads, come over!' (Anis), *A-u-u, kusbo olet?* 'Where are you?' (Mark), *Juakko, hoi! Tule kotih!* 'Hoy, Juakko! Come home!' (ZaiK). This group also includes

[161] See chapters 7.7.8 *Negative polarity pronouns* and 7.7.9 *Indefinite quantifier pronouns.*

interjections used to call animals and livestock, e.g. *kis-kis-kis* (cats), *est-est-est* / *est'oi-est'oi* / *ešti* (sheep), *tip-tip-tip* / *tipa-tipa* (hens), *ptruko-ptruko-ptrukoo* / *tprukoi-tprukoi* (cattle), *ptryččen-ptryčče*, *ptry-ptry* (calves), *čoh-čoh-čoh* / *št'uh* (dogs), *čuk-čuk* (swine) (Aht, Mark, ZaiV);

– imperative interjections that express a call to action and an order, e.g. *noo*, *nu*, *nukkoa* (Aht). These also include interjections used to drive off animals and livestock, e.g. *brissi* / *pris* (cats), *hullos* (dogs), *hus'š'u* / *huš* (swine), *hoino* (cattle), *kiš* (birds) (Aht, Mark), or to quiet them, e.g. *syt* (dogs) (Aht);

– interjections of etiquette, e.g. *Istukkuakseh požaluista*. 'Sit down, please.' (Rjagoev 1987: 390);[162]

– vulgar interjections, e.g. *Oh šie šiško, mintää tulit?* 'Oh you devil, why did you come here?' (Rjagoev 1977: 178);

– onomatopoeic interjections that mimic the sounds of birds and wild animals, or other sounds, e.g. *buľ-buľ* (the sound of water bubbling from a bottle), *čik* (the sound of a bird), *šńau* (the sound of a birch); *hau* (dog), *ka-ka-ka* (hen), *ko-ko-ko* (rooster), *mu-u-u* (cow), *ńau* (cat) (Mark). (Anisimov 1939: 153–154; Manžin 1964: 81; OFUJA: 107; Rjagoev 1977: 177–179; Rjagoev 1987: 389–390; Markianova 2002: 193–194; Zaikov 2002: 141; Pyöli 2011: 152; Zaikov 2013: 226.)

[162] Normative grammars do not include the category of interjections of etiquette.

MORPHOLOGY: GRAMMARS AND ATLAS MAPS

Their common Finnic base and the relative stability of the language's morphology to external influences explain why there are not many significant morphological differences between the main dialects and dialects of Karelian. Some of these differences are, for instance, in the oblique case system (see chapter 7.3 *Grammatical case*), as demonstrated by cluster map 11.

Analysis of the dialect atlas's cartographic data on the grammatical case system of Karelian dialects clearly shows three main dialects. In addition, some features within the main dialects distinguish the dialects of northeastern Padany (cluster 87) and the Tver Karelian dialects (cluster 151) of Karelian Proper (cluster 151), and also the Vidlitsa dialect (cluster 8) of Livvi-Karelian (cluster 3). Analysing the cluster maps by each individual grammatical case shows that the differences are primarily in the formation of the partitive plural.

Cluster map 12 depicts the grammatical case features that have been analysed in chapters 7.3.7 to 7.3.12. It contains four clusters:

1) Karelian Proper (cluster 72), which is characterised by the merging of the adessive and allative (*mečässä* ine. sg, *mečästä* ela. sg, *meččäh* ill. sg of *meččä* 'a forest', *veičellä* ade. sg, *veičeldä* abl. sg, *veičellä* all. sg of *veičči* ('a knife');

2) Livvi-Karelian (cluster 6) (excluding the Nekkulitsy and Rypushkalitsy subdialects) and Karelian Proper Border Karelian dialects, in which the inessive and elative have merged into a single case, as well as all external local cases (*mečäs*, *mečäs*, *meččäh*, *veičel*, *veičel*, *veičel*);

3) a group of subdialects (cluster 1) in which the Livvi-Karelian Nekkulitsy and Rypushkalitsy dialects are joined to South Ludic dialects, and which is set apart from the previously mentioned cluster by the unique allative case ending *-le* (*mečäs*, *mečäs*, *meččäh*, *veičel*, *veičel*, *veičele*);

4) Ludic dialects (cluster 4) (excluding South Ludic), which has different illative endings (*mečäs*, *mečäs*, *meččäi* / *meččähä*, *veičel*, *veičel*, *veičele*).

The inflectional system of personal pronouns (see chapter 7.7.1 *Personal pronouns*) is described in cluster map 13. The large cluster 73 is formed by Karelian Proper dialects (*mie* 'I', *hiän* 'he/she', *miän* / *meijen* gen. of *myö* 'we', *miuda* / *milma* par. of *mie* 'I', *meidä* par. of *myö; miula* ade. of *mie*, *meilä* ade. of *myö*). There are slight differences between the first level Livvi-Karelian clusters that then join into a single cluster on level 2 (*minä*, *häin* / *häi*, *meijän*, *minuu*, *meidy*, *minul* / *minule*, *meil* / *meile*). The northern subdialects of the Syamozero dialect (Vokhtozero, Syapchezero, Titnavolok) (cluster 63) and the Karelian Proper dialects of Border Karelia (cluster 189) share features from both Karelian Proper and Livvi-Karelian, as a result of which they stand out as independent clusters. Ludic subdialects show in the map as five clusters that join into a single cluster on level 2 (*minä* / *mie* [Central Ludic] / *mia* [Mikhailovskoye], *hän* / *häi*[*n*] [South Ludic, Mikhailovskoye], *meiden*, *mindai* / *minud* [South Ludic], *meid*, *minule*, *meile*).

The system of verb personal suffixes (see chapter 8.2 *Personal forms of verbs*) is depicted in map 14 by four large clusters. There are differences between the clusters particularly in regard to 1pl and 2pl. In Ludic dialects, they are formed with the affixes *-mme*, *-tte* (*-mm*, *-tt* [Mikhailovskoye]) (cluster 38); Livvi-Karelian and Border Karelian Karelian Proper dialects use the affixes *-mmo* / *-mmö*, *-tto* / *-ttö* (cluster 1), while Karelian Proper uses the affixes *-mma* / *-mmä*, *-tta* / *-ttä* in the present and past tenses (cluster 70) and the affixes *-ma* / *-mä*, *-ja* / *-jä* in the past tense (cluster 72).

Cluster map 15 illustrates the state of reflexive inflection, typical only to Livvi-Karelian and Ludic (cluster 1) and some South Karelian dialects of Karelian Proper (cluster 69) (chapter 8.7 Reflexive verb forms).

Thus, analysing the data contained in the second section of the dialect atlas with a clustering programme confirms and illustrates the conclusions made in the Morphology section of this study.

CONCLUSIONS

At the first stage of the *Verdailii karjalan kielioppi* [Comparative Grammar of Karelian] project we chose the grammars that would be examined in the present study. They comprised the normative grammars of Karelian published between 1937 and 2013 in Finland and Russia (the Soviet Union); namely, Bubrih's and Ahtia's grammars and the school grammars by Anisimov, Markianova, Zaikov, and Pyöli. In addition to the normative grammars, phonetic and morphological descriptions of individual dialects or dialect groups of the Karelian language published between 1870 and 1987 were also chosen for analysis. They comprise the earliest grammatical descriptions of all main dialect groups by Genetz, the descriptions of individual dialects by Palmeos (the Karelian Proper Valday dialect), Rjagoev (the Karelian Proper Tikhvin dialect), and Virtaranta (the Central Ludic Gallezero subdialects). We also analysed the unpublished descriptions of Karelian dialects stored in the Scientific Archives of the Karelian Research Centre by Beljakov (the Karelian Proper Tolmachi dialect), Anisimov (the Livvi-Karelian Kotkozero dialect), Barantsev (the South Ludic Svyatozero dialect), Rjagojev (the Livvi-Karelian Syamozero and Tulomozero dialects), and Manžin (the Karelian Proper Ves'yegonsk dialect). Thus, this study on the phonetics, phonology, and morphology of the Karelian language is based on the systematic analysis and comparison of as wide a selection of grammar data as possible.

The analysis, systematisation, and comparison of normative grammars and grammatical descriptions of the Karelian language reveals a range of questions that have in part been ignored in earlier research or have not been studied in close enough detail. Answers to these questions could provide researchers a better understanding of the occurrence of individual phonetic, phonological, or morphological categories in certain dialects or of the forms that have been adopted into the standardised varieties of Karelian. The categories that are detailed in the normative and descriptive grammars are presented in Table 77 with appropriate page numbers. The table clearly shows that not all phonetic and morphological categories are detailed in each grammar. These gaps, as well as the significant variation in terminology, are explained by different approaches and research traditions. The research material of this study — i.e. basic descriptions of the grammatical system of the Karelian language — was created during different time periods and by Russian (Soviet) and Finnish linguists. Their goals and intended audiences also vary. There are also significant dialect differences inside the system, meaning that linguistic categories typical of one dialect might be completely missing from the other; thus, they are not included in the grammar. Such is the case with the lack of reflexive conjugation in most Karelian Proper dialects, for example, or the instances of several case endings' having merged into a single suffix. This phenomenon may be observed to different degrees in each main dialect of Karelian.

Supplementary studies and scientific articles on certain grammatical aspects of Karelian and Finnic languages as a whole were examined to fill in the gaps that became apparent during the analysis, to explain the genesis of dialect differences, and also to get an understanding as comprehensive as possible of the distribution of individual phenomena in Karelian dialects. In addition, materials for the meetings that were held during the creation of the standard Karelian language the Soviet Union have been examined, as well as supplementary linguistic materials gathered from dialect dictionaries and language samples. The maps in the dialect atlas of the Karelian language, and also the dialect data gathering programme (*Programmy*)

used in its creation, stored in the Scientific Archives of the Karelian Research Centre of the Russian Academy of Sciences, were a significant asset for this study. The data gathering questionnaire booklets contain a vast amount of dialect data that were not used in the finished atlas and are still biding their time to be utilised.

Our analysis of the descriptive grammars confirms the division of the Karelian language into three main dialects and shows some significant differences between them. These main dialects were formed as speakers of Old Karelian migrated during different time periods into new regions and got into contact with their native inhabitants.

The main dialects of Karelian are divided into dialects with their own phonetic and morphological distinctive features. The primary cause for the division of main dialects into dialects are the interaction and influence between their neighbouring main dialects and the related languages of Veps and Finnish, and the influence of Russian, which belongs to a different language family. The influence of Russian has been inevitable due to centuries' worth of economical and cultural interaction between the Karelians and Russians. The influence of Russian is most apparent in Karelian phonology and vocabulary. Although more stable than other aspects of a language, even morphology has not been unaffected. All in all, it may be concluded that percentually, the significant differences in morphology between the Karelian main dialects and dialects are considerably smaller than those in phonetics and phonology.

The cluster maps created during this project confirm and illustrate our conclusions on the phonetic and morphological systems of Karelian dialects. They also make it possible to identify which dialects have provided which variants of given linguistic features that have been chosen as standard forms for the standard varieties of Karelian.

The different levels of our cluster maps that are based on the maps in the phonetics and morphology sections of the dialect atlas provide a general picture on the grammatical system of the Karelian language as a whole. They also show the borders between main dialects and dialects. Cluster maps 16a, 16b, and 16c depict the clustering levels 1, 2, and 3, respectively, based on atlas maps 4 to 185. On the fourth level all individual dialects simply merge into one language.

In map 16c, level three of the description of the grammatical system of Karelian, there are four distinct clusters:

1) a group of Karelian Proper dialects (excluding the dialects of Padany, Myandusel'ga, Porosozero, Ilomantsi, Korpisel'kya, Suystamo, Suoyarvi, Tolmachi, Ves'yegonsk, and Dyorzha) (cluster 115);

2) a group of Karelian Proper Myandusel'ga, Porosozero, and Padany dialects and their neighbouring Rugozero subdialects (Kuznavolok, Korguba) (cluster 80);

3) a group of Karelian Proper Tver Karelian dialects (cluster 156);

4) a group that joins the Livvi-Karelian and Ludic main dialects and the Karelian Proper subdialects of Border Karelia (cluster 16). Thus, in terms of grammar, Livvi-Karelian, Ludic, and the Karelian Proper dialects of Border Karelia are closer to each other than to the Karelian Proper South Karelian dialects groups.

On clustering level two, cluster map 16b shows several distinct groups of Karelian Proper:

1) a group of Viena Karelian dialects (Olanga, Kestenga, Keret, Vychetaybola) (cluster 135);

2) a group that joins southern Viena Karelian dialects (Tikhtozero, Ukhta, Voknavolok, Kontokki) with transitional dialects (Panozero, Poduzhemye, Yushkozero) and northern South Karelian dialects (Maslozero, Shuyezero, Tunguda, Rugozero, Reboly) (cluster 115);

3) a group of northwestern Padany subdialects and their neighbouring Rugozero subdialects that join them (Kuznavolok, Korguba) (cluster 82);

4) a group of southeastern Padany subdialects and their neighbouring northern Myandusel'ga subdialects that join them (Yustozero, Myandusel'ga, Tshobino) (cluster 80);

5) a group of Porosozero dialects and southern Myandusel'ga subdialects (cluster 76);
6) a group of northeastern Tver Karelian subdialects (cluster 156);
7) a group of southwestern Tver Karelian subdialects (cluster 171).

Level one of cluster map 16 shows that the clusters' borders do not always comply with the traditional borders of Karelian Proper dialect classification. This applies in particular to subdialects that are located on the border zones of dialects.

Viena Karelian dialects and transitional dialects show on level one as six intertwined clusters. The homogeneity of the Karelian Proper Viena Karelian dialect group is notable. Its grammatical system shows indubitable late Finnish influence. It is obvious that it has been most significant in the western regions, which is also reflected in the cluster's shape.

The South Karelian dialects of the Russian Karelia are represented by thirteen clusters. South Karelian dialects have more differences between them than those of Viena Karelian, which is explained by their formation and development on the border zones of main dialects. For this particular reason, the smallest clusters are located in the southern part of the region (four groups of Padany, two of Myandusel'ga and three of Porosozero subdialects). The great number of differences between the subdialects results from contacts with the neighbouring Ludic and Livvi-Karelian main dialects. Meanwhile, the group of Reboly and Rugozero has the smallest number of differences.

In cluster map 16a, Tver Karelian subdialects are represented by nine clusters on level one that divide the Ves'yegonsk dialect region into two and the Tolmachi dialect region into seven subdialect groups. As a great number of Dyorzha dialect points are missing from the map, the programme has not been able to distinguish the Dyorzha dialect.

Some of the most notable differences between the dialects in the Karelian Proper South Karelian dialect group are in the system of opening diphthongs, the distribution of close and open sibilants, the retention or shortening of geminates between consonants, representation of the weak grade of the consonant clusters *šk*, *sk*, the use of postpositionally formed cases, and the active 2nd participle affix.

A group of Border Karelian dialects (Ilomantsi, Suoyarvi, Korpisel'kya, Suystamo) form an independent group on clustering level one, which on level two joins the Livvi-Karelian dialects. It must be noted that this is our addition to the original dialect atlas data; therefore, Border Karelian dialects are represented by only six points (one for each dialect), and we were able to find answers to only some of the questions in the data gathering programme that the Atlas is based on in edited language samples representing these subdialects. For this reason, the clustering computer programme had insufficient input data to work with and, correspondingly, could not produce sufficient objective data on the Karelian Proper Border Karelian subdialects group. Further research is needed to expand the database on these subdialects and to gather supplementary dialect materials.

In Livvi-Karelian, a group of Tulomozero and Vidlitsa subgroups is distinct on level two of the cluster map, which includes eastern (Syamozero, Vedlozero, Kotkozero, Nekkulitsy, Rypushkalitsy) and Border Karelian dialects. Level one shows clusters representing the Nekkulitsy and Rypushkalitsy subdialects, Tulomozero subdialects, northern Vidlitsa subdialects, southern Vidlitsa subdialects, Kotkozero subdialects, northern Syamozero subdialects (Vokhtozero, Syapchezero, Titnavolok), Impilakhti and Salmi subdialects. A group of Vedlozero and southern Syamozero subdialects are represented in this map by three clusters.

The Livvi-Karelian main dialect as a whole is more homogeneous than Karelian Proper, which is explained by the unity of its distribution region. Essential differences between Livvi-Karelian dialects include, for instance, the differences in the system of opening diphthongs, the distribution of close and open sibilants, and the external local case system. The closest Livvi-

Karelian dialects to one another are the Rypushkalitsy and Nekkulitsy dialects, which is why some studies combine them, with good reason, into the so-called Olonec dialect. Indubitably close to one another are also the Syamozero and Vedlozero dialects as well as the Tulomozero and Vidlitsa dialects. Northern Syamozero dialects show the influence of its neighbouring Karelian Proper South Karelian dialects, which in some studies has provided the grounds for distinguishing the Livvi-Karelian Munozero dialect.

The Ludic main dialect is clearly distinct on clustering level two, while the boundaries of its four dialects show on level one. They are practically identical with the Ludic dialect division: Northern Ludic, Central Ludic, South Ludic, and the Mikhailovskoye dialect.

Some essential grammatical features that separate the Ludic dialects from one another are, for instance, the various diphthong variants, single vowels or triphthongs replacing *oi*, syncope or apocope, vocalisation of the word-final *h* or the syllable-final lateral *l*, the system of post-positionally developed cases, and 3rd person verb forms. Comparison of the Ludic phonological systems and morphology shows that differences between the dialects have been caused by the influence of the Karelian Proper (in Northern Ludic) and Livvi-Karelian (in South Ludic) main dialects and the Veps language (in the Mikhailovskoye dialect).

All in all, it can be concluded that the information provided by our analysis of the cluster maps does not contradict the variation found by research on the grammatical structure of Karelian. They also correspond to a degree to the dialect division based on the volost division of the early 1900s. One must note, however, that the dialect division becomes more obscure on the border zones, meaning the borders could also have been drawn differently. Individual subdialects of peripheral localities may include features from both of their neighbouring dialects, which is why it is difficult to regard them as part of one or the other. Cluster maps confirm and illustrate this, as certain subdialects connect to different clusters in different maps. On the one hand, it is not always possible to find significant dialect differences between neighbouring dialects (e.g. the Nekkulitsy and Rypushkalitsy dialect), and on the other hand, some individual subdialects may contain significant differences in their phonetics and morphology (e.g. the Padany dialect).

Expanding the clustering program's database with, among other things, the dialect data gathering booklets filled in for the dialect atlas, vocabulary and syntax materials and the corresponding materials of other closely related languages (Veps, Ingrian, and the Eastern Finnish dialects) could provide a more exact understanding on the traditional borders of the Karelian main dialects and dialects and also answer some controversial questions concerning the status of certain dialect groups.

The dialect division of Karelian depicted in this study and its corresponding map are representative of only the situation in the early 1900s, when the region inhabited by Karelians was linguistically still reasonably homogeneous, and the dialect borders were fairly clear. The present situation is considerably different due to various historical and political reasons. The Border Karelian dialects have been greatly influenced by Finnish. In the Republic of Karelia and in Inner Russia, the influence of Russian on Karelian dialects has significantly increased.

Assimilatory processes on both sides of the Finnish-Russian border have led to the extinction of certain varieties, such as the Suomussalmi, Dyorzha, and Valday dialects. It is apparent that the map of present-day Karelian inhabitation and, correspondingly, the map of Karelian dialects, greatly differ from the traditional ones. Fieldwork that investigates the linguistic situation in the regions that are inhabited by Karelians in the present could serve as a topic for a separate extensive study.

Our analysis of the normative grammars of Karelian showed that their accepted standard forms are usually based on the most widely distributed variants of certain phonetic and morphological phenomena that differ between dialects, although the influence of the dialects spoken by the grammars' authors can also be observed. Bubrih's grammar is exceptional in this

respect, as he was not a Karelian speaker but had an excellent understanding of the distinct characteristics of its main dialects and dialects. For this reason, he was able to assume an impartial stance in developing a common Karelian literary language and its rules. Unfortunately, published in unfavourable conditions, his grammar was short-lived.

Developing and promoting the contemporary standard varieties of Karelian may be the most effective way of preserving the language in a situation where the Karelian population is declining rapidly in number and the linguistic sphere is altogether unfavourable. The contemporary standard varieties will undoubtedly leave their mark on the Karelians' dialect speech, especially with the younger generation of speakers, which ultimately evens out dialect differences and obscures dialect borders.

In order to make the rich linguistic variation in Karelian more widely known, we created an online sound map of Karelian dialects[163] as part of our project, providing all those interested with an opportunity to listen how Karelians speak or have spoken in various regions of Karelia, including the Finnish Border Karelia, Tver, and Leningrad. There are over 50 localities on the map with sound recordings reflecting their dialects of the Karelian language. The sound map utilises materials provided by the Audio Archive of the Institute of Linguistics, Literature and History Karelian Research Centre Russian Academy of Sciences (from 1950–2000, Petrozavodsk) and the Audio Recordings Archive of the Institute for the Languages of Finland (1960s, Helsinki), and also some more recent audio recordings made during fieldwork in Karelian-inhabited regions in the Republic of Karelia and Tver. All audio clips have been transcribed using a simplified variant of the Finno-Ugric transcription system, and the text also includes details about the recording (author, place, date, place of storage) and the informant (year and place of birth).

The essential conclusion made on the basis of the research and civic activity sections of this study is the unity of the Karelian language. Fieldwork and inter-dialect seminars have shown that speakers of different Karelian main dialects and dialects can understand each other without great effort if they so wish. Also, there are no problems understanding the standard varieties of the Karelian language.

[163] The Karelian dialect sound map is accessible at the Karelian Research Center website at http://karjalankieliopit.krc.karelia.ru

TABLES

Phonetics: Vowels

Table 1. Vowel phonemes in Karelian

vowels	front vowels		central vowels	back vowels	
	illabial	labial	illabial	illabial	labial
close	*i*	*y* / *ü*	[*i̱*]		*u*
close-mid / open-mid	*e*	*ö*	[*e̱*]		*o*
open	*ä*			*a*	

Table 2. Long vowels in Karelian dialects[164]

	GenV 165	Rjag 7–8	Palm 8	Manž[165] 5	GenA 121	RjagL 23–25	Bar 15–16
uu	*uu*	*kuu*	*šuuri*	*uudimo*	*suu*	*tuuli*	*puu*
yy	*üü*	*puu* *žiivatta*	*küüneľ*	*myyvä*	*süü*	*üü*	*küünel*
ii	*ii*	*viižaš*	*hiiri*	*hiili*	*kiini*	*pii*	*tiineh*
aa		*laalaa*			Tlm: *maatah*	Tlm: *vaaru*	Mkh: *alaažet*
ää		*rääštäš*			Tlm: *jääbi*	Tlm: *pää*	Mkh: *kärbääne*
oo		*šanoo*			Tlm, Slm: *mahoo*	Tlm: *oo*	
öö		*möökkü*				Tlm: *öö*	
ee		*eezimäne*			Tlm, Slm: *vellee*	Tlm: *pee*	

Lexemes: *alaažet*, *eezimäne*, *jääbi*, *hiili*, *hiiri*, *kuu*, *olla kiini*, *kyyneľ*, *kärbääne*, *laalaa*, *maatah*, *maho*, *myyvä*, *möökky*, *pee* / *pää*, *puu*, *pyy*, *rääštäš*, *suu*, *syy*, *šanuo*, *šuuri*, *žiivatta*, *tiineh*, *tuuli*, *uudimo*, *velli*, *vaaru*, *viižaš*.

[164] Vowel length is indicated in various ways in the grammars. Long vowels are often marked with a macron, e.g. *ū*, *ā* (Palm, Rjag, Bar, RjagL). This kind of notation is used in the Finno-Ugric transcription system (UPA/FUT). Ahtia's grammar uses the diacritical acute (´) (e.g. *ú*, *á*) (Aht). The most widely spread custom of marking a long sound is using two graphemes, e.g. *uu*, *aa*. It is used in the normative grammars of Karelian and also in this study.

[165] All examples from Manžin's grammar have been transcribed into the Latin script from the original Cyrillic. (e.g. *ууди́мо*, *мююв́я*).

Table 3. Long vowels in standard varieties of Karelian

	Aht 8	ZaiK 22 / ZaiV 14	Mark 5 / Pyöl 11
uu	*kuu* *alguu*	*tuuli* *kučču*	*kuuzi* *kuuluu*
yy	*pyy* *kydyy*	*venyy*	*tüüni* *peittüü*
ii	*kiitän*	*riita*	*hiiri*
aa			*avaarii*
oo			*koodu*
ee			*foneetikku*

Lexemes: *algu*, *avaarii*, *foneetikku*, *hiiri*, *kiitteä*, *koodu*, *kučču*, *kuu*, *kuuluo*, *kuuzi*, *kydy*, *peittyö*, *pyy*, *riita*, *tuuli*, *tyyni*, *venyö*.

Table 4. Opening diphthongs in Karelian dialects

	diphthong / long vowel	GenV 165–166	GenS 215–216	Rjag 8, 15	Palm 9–11	Bel 12	Manž 8	GenA 121–122	RjagL 26–27, 33–43	AnisF 3–4	GenL 8–9	Bar 17
***aa > / a-a >**	**oa**	*oa*	*moa* *tappoa*		*noagлa* *hiemoa*			*toatto* *ottoa*				
	ua	KrV: *ua*		*mua*		*mua* *ruadua*			Smz: *mua* *kandua*	*mua* *kuadua*	*ruaduoi* *ruag*	*huahmuoi* *kuavi*
	uo										LdC: *puoksu*, *muoilma*	
	i̯a						*mi̯a* *pi̯arma*		Knd: *mi̯a*			
	aa	Pdn: *aa*							Tlm, Vdl: *maa* *kandaa*			
	oo	Pdn: *oo*										
***ää > / ä-ä >**	**eä**	*eä*	*peä* *löydeä*					*peä* *jeähäh*				
	iä	KrV: *iä*		*kiän*		*liävä* *löwdiä*	*piä* *siä*		Smz, Knd: *piä*	*iäni* *kiändiä*	*piäzi* *iäreh*	*siäri* *viäre*
	öä				*jöä* *jiättöä*							
	ie								Smz: *lehmie* *elie*		LdC: *kierid* *piel*	
	ää								Vdl: *pää* Tulomozero: *lehmää*			
	ee	Pdn: *ee*							Tlm: *pee* *elee*			

***oo > / o-o / u-a / o-a >**	**uo**	*uo*	*luguo*	*šuo*	*vuoži* *reduo*	*tuohi* *ruoga*	*huoli* *tuomi*	*suo*	*suo* *kuduo*	*suolu* *kuduo*	*kuoltih* *suo*	*suole* *huondes*
	u-a > uu								*abuu*			
	o-a > oo								Tlm: *verkoo*			
***öö > / ö-ö / y-ä / ö-a >**	**yö**	*üö*	*kyzyö* *miehyöt*	*tüö* *üökšüimmä*	*šüön*	*vyö* *pyörie*	*hyö* *vyö*	*süö*	*üö* *süön*	*yö* *väzyö*	*süömine*	
	ye				*pöäkšüet* *külüe*							*müöhä* *süödä*
	y-ä > yy								*vävüü*			
***ee > / e-e / i-e / i-a / i-ä / e-a / e-ä >**	**ie**	*ie*	*järie* *ečči̯e*	*mieli*	*kieli* *kondie*	*šieni* *pimie*	*liemi* *mieli*	*tie*	*kergien* *kaskie*	*vie* *sylgie*	*vie* *piend*	*kieli* *mies*
	i-a > ii								*poigii*			
	e-a > ee								Tlm: *kaskee*			

Lexemes: *abu*, *ečči̯e*, *elie* / *elee*, *hiemoa*, *huahmuoi*, *huoli*, *huondes*, *hyö*, *iäni*, *iäreh*, *jeähä*, *jiättöä*, *järie*, *jöä*, *kandua* / *kandaa*, *kaski*, *kerritä*, *kieli*, *kieridä*, *kiändiä*, *kondie*, *kuadua*, *kuavi*, *kuduo*, *kuolta*, *kyly*, *kyzyö*, *käzi*, *lehmy*, *liemi*, *liävä*, *lugu*, *löwdiä* / *löydeä*, *miehyt*, *mieli*, *mies*, *mua* / *moa* / *mi̯a* / *maa, muoilma*, *myöhä*, *ottoa*, *noagla*, *pi̯arma*, *piel*, *piä* / *peä* / *pää* / *pee*, *pieni*, *pimie*, *piästä*, *poiga*, *puoksu*, *pyörie*, *pöäkšyt*, *redu*, *ruadua* / *ruatta*, *ruag*, *ruoga*, *siä*, *siäri*, *suolu* / *suole*, *sylgie*, *šuo* / *suo*, *syömine, šieni*, *šyyvä* / *syvvä* / *syödä*, *tappoa*, *tie*, *toatto*, *tuohi*, *tuomi*, työ, verko, *viijä*, *viäre*, *vuoži*, *vyö*, *väzyö*, *vävy*, *yö*, *yökšyö*.

Table 5. Closing diphthongs in Karelian dialects

	GenV 166	GenS 215–216	Rjag 8, 15	Palm 9	Bel 9–10	Manž 7–8	GenA 121–122	RjagL 37–45	AnisF 4–6	Bar 16–20
ai	*ai*		*aivoin*	*kaida* *magain*	*aiga*	*naine*	*harmai*	*kaidu* *tabailla*	*kai* *andai*	*lainata* *akkaine*
oi	*oi*		*koivu*	*poiga* *šarvinoista*	*voida*	*koivu*		*soimi*	*koivu* *kabaloija*	*koire*
ui	*ui*		*uinoimma*	*muigie* *vaivuin*	*uinda*	*puine*		*kuivu*	*uidua* *sordui*	*vuitti* *astuin*
ei	*ei*		*peittie*	*heinät* *hardeida*	*leibä*	*veičči*		*valgei* *rein*	*ei* *levei*	*leikata*
äi	*äi*		*täi*	*päiväne* *keräi*	*päisär*	*täi*		*päivü* *näin*	*täi* *lendäi*	*päive*
öi	*öi*	*höipuu*	*šöimmä*	*šöin* *regilöillä*	*häbälöijä*	*höi*			*möi* *riäpöi*	LdC: *šöi* LdS: *šüöi*
yi	*üi*			*šüin* *šünnüin*	*nänkyijä*	*syndyis'*			*väzyi*	*külüine*
ii			*piimä*		*liina*	*žiilo*			*hiiri* *kondii*	
au	*au*			*hawgi* *avawdun*	*awgie*	*haugi*		*aunu* Smz: *plakuttau* Tlm: *plakuttaa*	*laudu* *ruadau*	*kauniš*
ou	*ou*			*nowžow* *tuлow*	*lowna*	*pouda*		*rougu* Smz: *punou* Tlm: *punoo*	*poudu* *seižou*	*poude*
eu	*eu*			*lewga* *n'ukkeuduma*	*lewga*	*leuga*		*leugu*	*leugu*	*leuge*
iu	*iu*			*kiwgoa* *potkiw*	*kiwgua*	*kiugia*		*liugu* Smz: *luadiw* Tlm: *laadii*	*kiuru* *tiukkau*	*kiuru*

äy	*ää*	*väy*		*täwži* *röbäüttäw*	*läwlen*	*käyttiä*		*täüz* Smz: *eläü* Tlm: *elee*	*täyzi* *kiändäy*	*täüs*
öy	*öö*	*töytty*		*löwlü* *käšköw*	*löwly*	*höyry*		*köühü* Smz: *käsköü* Tlm: *käsköö*	*löyly* *kydöy*	*höühen*
ey	*eü*	*teytty*		*keühä / kiwhä* *läzewdü*		*keyhä*	*keühnü*		*keyhy*	*keühe*
iy	*iü*			*liüheš / liwheš*			*liügi*		*liyhtes* *riehkiy*	
uw				*kiehuw*	*kuwlla*			Smz: *kirguw* Tlz: *kirguu*	*luu* *puuttuu*	
yw				*venüw*	*pywdiä*			Smz: *sündüw* Tlz: *sündüü*	*pyy* *väzyy*	

Lexemes: *aiga*, *aivoin*, *akkaine*, *andai, astuo*, *augie*, *aunu*, *avauduo*, *hardie*, *harmai*, *haugi*, *heinä*, *hiiri*, *häbälöijä*, *höi*, *höipuu*, *höyhen*, *höyry*, *ei*, *eliä / eleä*, *kai*, *kaida / kaidu*, *kabaloija*, *kauniš*, *kerätä*, *keyhä / keyhy / keyhe / köyhy*, *keyhny*, *kiehuo*, *kirguo*, *kiugua / kiugoa / kiugia, kiuru*, *kiändiä*, *koire*, *koivu*, *kondii*, *kuivu*, *kuulla*, *kydyö*, *kylyine*, *käškie / käskie*, *käyttiä*, *lainata*, *laudu*, *leibä*, *leikata*, *lendäi*, *leuga / leugu / leuge*, *levei*, *liina*, *liugu*, *liygi*, *liyhes / liyhtes*, *louna*, *luadie / laadie*, *luu*, *läzedyö*, *läylen*, *löyly*, *moata*, *muigie*, *myvvä*, *naine*, *noušša*, *n'ukkeuduo*, *näin*, *nänkyijä*, *peittie*, *pidie*, *plakuttua*, *poiga*, *potkie*, *pouda / poudu / poude*, *puine*, *punuo*, *puuttuo*, *pyy* 'pyy', *pyydiä* , *päisär*, *päiväne*, *päivy / päive*, *regi*, *riehkie*, *riäpöi*, *rougu*, *ruadua*, *röbäyttöä*, *seižuo* 'seisoa', *soimi*, *sorduo*, *šyin*, *šyndyö / syndyö*, *šyvvä / šyödä*, *šarvi*, *žiilo*, *tabailla*, *tiukkua*, *tulla*, *täi*, *täyži / täyzi / täyz / täys*, *töytty / teytty*, *uidua*, *uinda*, *uinota*, *vaibuo*, *valgei*, *veičči* 'veitsi', *venyö*, *voi*, *vuitti*, *väzyö*, *väy*, *žiilo.*

Table 6. Diphthongs in standard varieties of Karelian

		Bubr[166] 5–6	Aht 8–9, 18	Anis[167] 21	ZaiK 22–23 / ZaiV 15–16	Mark 7–8 / Pyöl 15–16
opening diphthongs	**oa**		*moa*			
	ua	*huaba* *andua*		*ruado*	*mua* *opaštua*	*mua* *kuadua*
	eä		*peä*			
	iä	*viärä* *eliä*		*piä*	*iäni* *viärä*	*piä* *vediä*
	yä				*elkyä mänkyä kiäntyä*	
	uo	*nuotta* *sanuo*	*suo*	*nuotta*	*luokka* *opaštuo*	*suo* *kaččuo*
	yö	*vyö* *nägyö*	*yö*	*myö*	*yö* *kypšyö*	*üö* *peittüö*
	ie	*liemi* *käskie*	*vie*	*sieni*	*mie* *kontie*	*tie* *lugie*
closing diphthongs	**ai**	*aida* *avai*	*ainos*	*paida* *sai*	*aika* *lupai*	*aigu* *vaihtai*
	oi	*koira*	*toi*	*toi* *koira*	*oikie* *avutoin*	*koiru* *andoi*
	ui	*lukkui*	*huima*	*kuiva*	*muikie* *kuikka*	*uinota* *kučui*
	ei		*heil*	*ei* *keitti*	*heinä* *veičči*	*eineh* *korgei*
	äi		*jäi*	*päivä*	*äijä* *hyppäi*	*äijü* *keittäi*
	öi		*söi*	*söi*	*öitä* *ikävöijä*	*söi* *tüttöine*
	yi		*kerävyi*	*venyi*	*lyijy* *yksityini*	*külüine* *küzüi*
	ii	*viizi*		*piirua*		

[166] All examples from Bubrih's grammar have been transcribed into the Latin script from the original Cyrillic (*уузи* = *uuzi*, *мӱӱни* = *tyyni*, et cetera).

[167] All examples from Anisimov's grammar have been transcribed into the Latin script from the original Cyrillic (*муулли* = *tuuli*, *истуу* = *istuu*, et cetera).

	au	*lauda* *andau*	*auna*	*lauda* *lautta*	*hauki* *taivuttau*	*laukku* *algau*
	ou	*nouzen* *sanou*	*oudo*	*tulou* *loukko*	*pouta* *kačču*	*poudu* *kačču*
	eu		*reuna*	*leuga*	*leuka* *havačču*	*leugu*
	iu		*niuha*	*liuha*	*kiukua* *n'okkiu*	*kiuru* *oppiu*
	äy	*täyzi* *vedäy*	*käygeä*	*läylen* *täyzi*	*täyši* *hätäytyy*	*täüzi* *kündäü*
	öy	*löydiä* *isköy*	*möykky*	*löyly* *mänöy*	*höyhen* *piäsöy*	*löülü* *kävelöü*
	ey		*keyhä*		*keyhnä* *kipeytyö*	*keühü*
	iy		*liyhteh*		*viyhti* *ečči*	*liüdiläine* *ečči*
	uw	*uuzi* *puhuu*		*luu* *puu*		
	yw	*tyyni* *nägyy*		*pyydi* *pyy*		

Lexemes: *aida*, *aigu, ainos*, *algua*, *andua*, *auna*, *avata*, *avutoin*, *ečči*e, *ei*, *eineh*, *eliä*, *hauki*, *havačču*eutuo, *heinä*, *huaba*, *huima*, *hypätä*, *hyö*, *hätäytyö*, *höyhen*, *ikävöijä*, *iskie*, *iäni*, *jeähä*, *kačču*o, *keittiä*, *kerävyö*, *keyhä* / *keyhy*, *keyhnä*, *kipeytyö*, *kiukua*, *kiuru*, *kiäntyä*, *koira* / *koiru*, *kontie*, *korgei, kuadua*, *kučču*o, *kuikka*, *kuiva*, *kylyine*, *kyndiä*, *kypšyö, kyzyö*, *käskie*, *kävellä*, *kävvä, lauda*, *laukku*, *lautta*, *leuga* / *leuka* / *leugu*, *liemi*, *liuha*, *liydiläine, liyhteh*, *loukko, lugie*, *lukuta*, *luokka*, *luu*, *luvata*, *lyijy*, *läylen*, *löydiä*, *löyly*, *mie*, *mua* / *moa*, *muikie*, *myö*, *männä*, *möykky*, *niuha*, *n'okkie*, *nousta*, *nuotta*, *nägyö*, *oikie*, *opaštua*, *opaštuo*, *oppie*, *oudo*, *paida*, *peittyö*, *piirua*, *piä*, *piäššä, pouta* / *poudu*, *puhuo*, *puu*, *pyy*, *pyydiä*, *päivä*, *reuna*, *ruado*, *sanuo*, *sieni*, *suaha*, *suo*, *syvvä*, *taivuttua*, *tie*, *tulla, tuuva* / *tuvva*, *tyttöine*, *tyyni*, *täyzi* / *täyši*, *uinota*, *uuzi*, *vaihtai'*, *vediä*, *veičči*, *venyö*, *vie*, *viizi*, *viyhti*, *viärä*, *vyö*, *yksityini*, *yö*, *äijä* / *äijy.*

Table 7. Triphthongs in Karelian dialects

	Rjag 9	Palm 11	RjagL (Smz) 51–52	AnisF 7–8	Bar 22–24
oau		*šoav* *leikkoaw*			
uau	*rubjua*^{w}		*suaw* *avuaw*	*tabuau* *kaimuau*	*suau*
öäy		*jööäw* *hüppööäw*			
iäy				*jiäu* *lykkiäu*	
uou		*ɲuow* *pakkuow*	*luow* *tabuow*	*tuou* *uinuou*	*tuou*
yöy		*müöw* *süöw*	*müöw* *töllüöw*	*lyöu* *syöu*	*müöü*
ieu	*rubie*^{w}	*rubiew* *ɲangiew*	*rubieu* *muriew*	*rubieu*	*vieu*
iey			*jiew* *hüppiew*	*hävieu*	
ieä	*jieäh*				
uai					*suai* *tuai*
iäi					*diäi* *tiäi*
uoi					*d'uoi* *rebuoi*
yöi					*süöi* *dänüöi*
iei					*viei*

Lexemes: *avata, d'uoda, dänyöi, hypätä, hävitä, jiähä / jöähä / jiehä / jieähä / diädä, kaimata, langeta, leikata, luuva, lykätä, lyvvä, mureta, myvvä / myödä, pakota, rebuoi, ruveta / rubjata, suaha / šoaha / suada, šyyvä / syvvä / syödä, tavata, tavota, tiäi, tuai, tuvva / tuoda, töllötä, uinota, viedä.*

Table 8. Triphthongs in standard varieties of Karelian

	Anis 22	ZaiK 23–24 / ZaiV 17–18	Mark 8–9 / Pyöl 12
uau	*avuau* *kuivuau*	*leikkuau* *kehtuau*	*suau* *katkuau*
iäy		*jiäy*	*jiäü* *lükkiäü*
yäy		*lykkyäy*	
uou		*juou* *kirpuou*	*juou* *tukkuou*
yöy		*lyöy* *myöy*	*müöü* *mädžüöü*
ieu		*rupieu* *šuorieu*	*katkieu* *langieu*
iey		*viey* *kerkiey*	*selgieü* *hävieü*
uai		*šuarnuais* *lohkuais*	
yäi		*keryäis* *lisyäis*	
uoi		*vakuois* *murtuois*	
iei		*rupieis* *kerkieis*	

Lexemes: *avata, hävitä, jiähä / jiäjä, juuvva / juvva, katkata, katketa, kehata, keritä, kerätä, kirvota, kuivata, langeta, leikata, lisätä, lohata, lykätä, lyyvvä, murrota, myyvvä / myvvä, mädžötä, ruveta, sellitä, suaja, šuarnata, šuorita, tukuta, vavota, viijä.*

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Table 9. Consonant phonemes in Karelian[168]

place of articulation / manner of articulation			labial		dental / alveolar		palato-alveolar		palatal/velar		glottal	
			hard	soft	hard	soft	hard	soft	hard	soft	hard	soft
obstruents	plosive	voiceless	p	(p’)	t	t’			k	(k’)		
		voiced	b	(b’)	d	d’			g	(g’)		
	affricate	voiceless			c			č				
		voiced						dž[169]				
	sibilant	voiceless			s	s’	š					
		voiced			z	z’	ž					
	fricative	voiceless	f						[χ]		h	(h’)
sonorants	semi-vowel	voiced	v	(v’)					j			
			[w][170]									
	nasal	voiced	m	(m’)	n	n’			[ŋ]			
	lateral	voiced			[л] / l	l’						
	tremulant	voiced	ψ[171]				r	r’				

[168] Weakly palatalised phonemes not usually specifically mentioned in the grammars are in parenthesis, and positional phoneme variants, i.e. allophones, are in square brackets.

[169] The voiced affricate *dž*, which has spread into the South Karelian dialects of Karelian Proper (excluding the Reboly and Rugozero dialects and those north of them) and into Livvi-Karelian and Ludic dialects, only occurs word-medially (*kidžu*, *liedžu* / *liedž*) (Genetz 1885: 123–124; Palmeos 1962: 15; see also Nirvi 1932: 23; Leskinen 1933: 31; Turunen 1946: 200–202, Anisimov 1948: 47; Barantsev 1985: 27).

[170] The semivowel *w*, which stands between close labial vowels and the bilabial fricative *v*, is used in Karelian dialects only as the second segment of diphthongs or triphthongs (Palmeos 1962: 16). There are no positions in which *w* and *v* could replace one another (apart from certain subdialects in which *w* can turn into *v* or vice versa) as *v* occurs in front of vowels, whereas *w* occurs in front of consonants or word-finally, so they cannot be considered to be variants of a single consonant phoneme (Beljakov 1948: 15–18). In this respect the semivowel is closer to close labial vowels. See chapter 1 *Vowels*.

[171] The consonant *ψ* occurs in Karelian dialects rather seldom, e.g. in interjections which are used in cattle driving or calling (Suystamo *tψüko*, *tψüko*; Valday *ψus’a*, *ψus’a*; Tulomozero *tψugo*) and also in onomatopoetic words (see also Kujola 1910: 6; Nirvi 1932: 17; Leskinen 1933: 19; Palmeos 1962: 16; Barantsev 1975: 44).

Table 10. Voiced and voiceless consonants in Karelian dialects

	GenV 167 (KrS)	GenS 207–210	Rjag 26–32, 36–37	Palm 14–16	Bel 15–16, 38	Manž 5–11	GenA 124–125	AnisF 113–118	RjagL 58–69	Bar 26–28, 34–43
k	*kanža* *pitkä*	*kagra* *akat* *härkin*	*kukko* *rokan* *kakši* *kaški*	*katata* *akat* *pakšu* *nahka*	*kando* *vakat* *nahka*	*käzi* *jänikset* *itku*	*kurgi* *kukoi* *ähkätä*	*korvu* *sukat* *suksi* *lahko*	*kurgi* *čakata* *oksu* *pitkü*	*kana* *kukuoi* *okse* *kaski*
g	 *roaga* *noagla* *märgä*	*giira* *sagie* *kagra* *hango*	*gora* *kego* *kagra* *šarga*	*garbalo* *roaga* *valgie*	*guru* *jogi* *kurgi*	 *lugu* *langa*	*garbalo* *jagoa* *kaglu* *kurgi*	*guarbalo* *vägi* *kaglu* *jalgu*	*garbalo* *ďogi* *nieglu* *rengi*	*garbalo* *liige* *nuagle* *olgi*
t	*tähkät* *katan* *pitkä* *laštu*	*tappoa* *ei ota* *matkoan* *kintut*	*talo* *otan* *itkie* *mušta*	*tütär* *otetah* *pitkä* *istuo*	*tuhka* *nuotalla* *šotkie* *tähti*	*tʲaš* *potkie* *lehti*	*tääzi* *otan* *pitkän* *mustat*	*tora* *otan* *petkel* *ahtas*	*tervu* *lutikat* *itkie* *piihtet*	*tahkota* *lutiine* *katkaita* *kaste*
d	 *pada* *peldo*	*denga* *juodih* *pedra* *händä*	*doroga* *koda* *pudro* *randa*	*doroga* *vedehine* *parda*	*digo* *pada* *randa*	 *kodi* *kando*	*ďogi* *pada* *ladvu* *peldo*	*dorogu* *pada* *adru* *kando*	*ďogi* *pada* *kodvaine* *andua*	*ďumal* *haude* *ladve* *korendo*
p	*peldo* *kaupičen*	*pedra* *ei tapa* *tirpan*	*poiga* *papin*	*pakšu* *riputat*	*palgo* *šopešša*	*pyzyö*	*peldo* *tapoi*	*pada* *topas*	*pihku* *kopitetah* *küpsi*	*pieni* *ruopas* *lapsi* *šorpat*
b	 *kobra* *hambahat*	*boabuška* *hebo* *nyblä* *kilba*	*buola* *rebo* *kobra* *ramba*	*buola* *leibä* *kobra* *hambahat*	*buola* *taba* *ambuo*	 *leibä* *nyblä*	*buolu* *vaibuo* *nüblü* *külbie*	*buolu* *leiby* *labju* *rambu*	*buolu* *ńaba* *kablaš* *lambi*	*barbas* *hebo* *kablaš* *korbi*
s / š	*suďďa* *laštu* *üksi* *kakši*	 *šuoli* *lastu* *höšte* *kaks*	*suutkat* *šuuri* *koista* *keški* *üksi* *lapši*	*silie* *šeppä* *istuo* *rieška* *üksi* *kakši*	 *šana* *kiskuo* *oštua*	*syli* *šagie* *laštu* *yksi* *kakši*	 *šara* *mustat* *iškie* *kaksi* *ükši*	*sormi* *šalgu* *bošit* *keski* *ištun* *suksi*	*silei* *šihiliuhku* *kaste* *lašku* *küpsi*	*sana* *šuare* *koski* *niške* *lapsi* *ripšu*

z / ž	*razva* *poažma* *konža*	*zavoda* *žeäli* *veza* *kaži* *ozra* *kanza*	*zuahari* *važa* *ozra* *kažvaa* *onži*	*zbruuja* *žentäh* *kizoaw* *važa* *virži*	*kiza* *važa* *ozra* *korži*	*žiilo* *käzi* *kuuži* *kažvja* *konža*	*vuozi* *aižu* *ozru* *varzi*	*zvieri* *žirdi* *käzi* *ižä* *ozru* *parzi* *käžny*	*zuavessi* *žiivattu* *oza* *kaži* *razvu* *künzi*	*žiäli* *oza* *nižu* *razve* *virzu*

Lexemes: *adru*, *ahtas*, *aižu*, *akka*, *ambuo*, *andua*, *barbas*, *boabuška*, *bošši*, *buola* / *buolu*, *čakata*, *denga*, *digo*, *doroga* / *dorogu*, *ď'umal*, *garbalo* / *guarbalo*, *giira*, *gora*, *guru, hammas* / *hammaš*, *hango*, *haude*, *hebo*, *händä*, *härkin*, *höšte*, *iškie*, *istuo* / *ištuo*, *itkie*, *itku*, *ižä*, *jagoa*, *jalgu*, *jogi* / *ď'ogi*, *juuva*, *jänis*, *kablaš*, *kaglu*, *kagra*, *kakši* / *kaksi* / *kaks*, *kana*, *kando*, *kanza* / *kanža*, *kaste*, *kaški* / *kaski*, *kaži*, *kažvaa* / *kažvja*, *katata* / *katkaita*, *kattua*, *kaupieččie*, *kego*, *kešk* / *keski*, *kilba*, *kintu*, *kiskuo*, *kiza*, *kizata*, *kobra*, *koda*, *kodi*, *kodvaine*, *konža*, *kopittada*, *korbi*, *korendo*, *korži*, *korvu*, *koski*, *kukko* / *kukoi* / *kukuoi*, *kurgi*, *kuuži*, *kylbie*, *kynžiď*, *kypsi*, *käzi*, *käžny*, *labju*, *ladvu* / *ladve*, *lambi*, *langa*, *lapši* / *lapsi*, *lašku*, *laštu* / *lastu*, *lehti*, *leibä* / *leiby*, *liige*, *lohko*, *lugu*, *lutiine*, *lutikku*, *matata*, *mušta* / *musta* / *mustu*, *märgä*, *ńaba*, *nahka*, *nieglu*, *niške*, *nižu*, *noagla* / *noagle*, *nuotta*, *nyblä* / *nybly*, *oksu* / *okse*, *olgi*, *onži*, *oštua*, *oza*, *ozra* / *ozru*, *ottua* / *ottoa*, *pada*, *pakšu*, *palgo*, *pappi*, *parda*, *parzi*, *pedra*, *peldo*, *petkel*, *pihku*, *pieni*, *piihtet*, *pitkä* / *pitky*, *poažma*, *poiga*, *potkie*, *pudro*, *pyzyö*, *ramba* / *rambu*, *randa*, *razva* / *razvu* / *razve*, *rebo*, *rengi*, *rieška*, *ripšu*, *riputtoa*, *roaga*, *rokka*, *ruopas*, *silie* / *silei*, *sormi*, *suď'ď'a*, *sukku*, *suksi*, *suutkat*, *syli*, *šagie* / *sagie*, *šalgu*, *šana* / *sana*, *šara*, *šarga*, *šeppä*, *šišiliuhku*, *šoppi*, *šorp*, *šotkie*, *šuare*, *šuoli*, *šuuri*, *zavoda*, *zbruuja*, *zuahari*, *zuavessi*, *zvieri*, *žentäh*, *žeäli* / *žiäli*, *žiilo*, *žiivattu*, *žirdi*, *taba*, *tahkota*, *talo*, *tappoa*, *tervu*, *ţaš*, *tirppoa*, *toppu*, *tora*, *tuhka*, *tytär*, *tähkä*, *tähti*, *täyzi*, *vaibuo*, *vakka*, *valgie*, *varzi*, *važa*, *vedehine*, *veza*, *virži*, *virzu*, *vuoži*, *vägi*, *yksi*, *ähkätä*.

Table 11. Close and open sibilants in Karelian dialects

	GenS 209–211	Rjag 26–32	Palm 16–18	Bel 30–41	Manž 6–7	GenA 123	RjagL 58–69	AnisF 99–113	GenL 12–13	Bar 26–43
s		*silmä* *koista* *üksi*	*silie* *istuo* *üksi*	*istuw* *yksi*	*särgi* *käskie*	*silmü*	*suolu* *istuo* *yksi*	*sada* *kaksi* *kypsy* *astun*		*sana* *siä* *lapsi* *küpsetä* *kasarta*
z	*zavoda* *pezin* *veza* *sygzyn*	*zuahari* *sizär* *kazi* *kezräimmä* *ozra*	*kizoaw* *kazi*	*izändä* *kezrätä* *ozra*		*zakona* *täüzi* *väzyö* *ozru*	*paize* *käzi* *kezrätä* *oza*	*zvieri* *kynzi* *kezä* *azettua*	LdC: *rubezi*	 *väzüdä* *oza*
š	*šara* *haiška*	*šilmä* *šuuri* *lapši*	*šeppä* *kekšie* *üškä* *uškuo*	*šeinä* *lapši*	*šagie* *ištuo* *ruoška*	*šara* *iškie* *höšte* *loškata*	*šuoli* *iškie* *komšu*	*šalgu* *ištun* *bošši*	LdC: *šida* *ištuu*	*šalgu* *niške* *päštär*
ž	*žeäli* *kaži*	 *onži* *važa*	*žentäh* *virži* *važa*	 *varži* *pežen*	*žiivatta* *kuuži* *oža*	 *aižu* *kaži*	*žiivattu* *aižu*	*žirdi* *ižä* *kaži* *kuožali*	 *piäžin* *küžüi*	*žiäli* *nižu* *püžüdä*

Lexemes: *aižu*, *astuo*, *azettua*, *bošši*, *haiška*, *iškie*, *istuo* / *ištuo*, *izändä*, *ižä*, *kaksi*, *kasarta*, *kazi* / *kaži*, *kekšie*, *kezrätä*, *kezä*, *kizata*, *kodi*, *komšu*, *kuožali*, *kuuži*, *kynzi*, *kypsetä*, *kypsy*, *kyžydä*, *käskie*, *käzi*, *lapsi* / *lapši*, *niške*, *nižu*, *onži*, *oza* / *oža*, *ozra* / *ozru*, *paize*, *pessä* / *peššä*, *piäštä*, *pyžydä*, *päštär*, *ruoška*, *rubeta*, *sada*, *sana*, *silie*, *sizär*, *siä*, *suolu*, *särgi*, *sygzy*, *šagie*, *šalgu*, *šara*, *šeinä*, *šeppä*, *še*, *šilmä* / *silmä* / *silmy*, *šuoli*, *šuuri*, *zakona*, *zavoda*, *zuahari*, *zvieri*, *žentäh*, *žeäli* / *žiäli*, *žiivatta* / *žiivattu*, *žirdi*, *täyzi*, *uškuo*, *varži*, *važa*, *veza*, *virži*, *väzyö* / *väzydä*, *yksi*, *yškä*.

Table 12. Consonant palatalisation in Karelian dialects

	GenV 166	GenS 211–212	Rjag 25–33	Palm 17–19	Bel 29–37	GenA 122–123	RjagL 54, 56–58	AnisF 118–128	GenL 13–14	Bar 25–29
t’	*t’iedo*	*t’iedeä* *ašt’ivo*	*t’ämä* *t’üt’tö*	*t’iedäw* *kät’üt*	*t’edri* *nuat’t’i*	*t’id’d’ä*	*t’ina* *lut’ikat*	*t’ikku* *pert’i*	*t’üvi* *läht’i*	*t’äčüöi* *kut’aine*
d’	*sud’d’a*	*t’äd’öi* *load’ie*	*d’iedo* *lad’d’ata*	*d’iga* *kod’i*	*kod’i* *händ’ä*	*d’ogi* *d’iedo / d’ied’o*	*d’ogi* *kird’avu*	*d’iäd’ö* *luad’ie*	*lüöd’ih* *send’äh*	*d’umal* *ad’vo*
s’	*as’s’a*	*us’s’a* *bes’s’oda*	*s’iz’är* *üks’i*	*s’iz’är* *päis’s’är*	*mus’s’ikka* *kos’ina*	*bes’oda*	*s’ängi* *s’in’ine*	*pas’s’ibo*	*pas’s’ibo*	*kaks’aile*
z’	*z’*		*käz’i* *az’ie*	*viiz’i* *iz’ändä*	*luz’ikka* *iz’ä*	*z’*	*z’el’l’u*			*z’*
l’	*nel’l’ä*	*l’uubie* *vel’l’i*	*l’öt’t’ö* *kal’l’uu*	*l’eški* *hil’l’ah*	*kiel’i* *kyl’ä*	*pal’l’as* *vel’l’i*	*l’iigu* *l’ühüt*	*l’iha* *l’öyl’y*	*pual’ikat* *n’el’l’*	*l’ekuttai* *mul’u*
n’	*min’n’a*	*n’eid’in’e* *n’än’n’i*	*n’el’l’ä* *min’n’ä*	*n’iitti* *min’n’a*	*n’el’l’ä* *pien’i*	*n’üblü* *Ven’a*	*n’äbl’ie*	*n’äppi* *un’i*	*n’älg* *pan’i*	*n’okke* *pun’u*
r’	*zor’a*	*or’hoi* *sar’ouha*	*r’ihma* *jär’v’i*	*r’ökkö* *nagr’is’*	*ver’i* *pur’i*	*r’*	*r’ippiel* *ker’iew*	*suar’i* *or’hoi*	*vier’i* *nur’m*	*r’iihi* *kir’uttada*
p’			*p’üü*	*p’er’eh’*			*p’ühä*			*p’*
b’			*kab’ie*	*b’el’ie*			*siib’i*			*b’*
k’			*k’äz’i*	*k’izata*			*k’äitöi*			
g’			*ig’äv’ä*	*pag’ina*			*d’og’i*			
m’			*m’üüv’ä*	*m’eččä*			*l’äm’m’ü*			*m’*
v’			*v’ilu*	*v’ez’i*			*v’irbi*			*v’*
f’										*f’*
h’			*h’üvä*	*ven’eh’*			*h’üvä*			

Lexemes: *ad’vo*, *as’s’a*, *aštivo*, *azie*, *belie*, *bes’s’oda* / *bes’oda*, *diga*, *diedo*, *d’umal*, *diädö*, *d’ogi*, *hil’l’ah*, *hyvä*, *händä*, *igävä*, *izä*, *järvi*, *kabie*, *kaks’aile*, *kal’jua*, *kerie*, *kieli*, *kird’avu*, *kizata*, *kodi*, *kosina*, *kurittada*, *kut’aine*, *kylä*, *käitöi*, *käzi*, *kätyt*, *lad’d’ata*, *lekuttai*, *leški*, *liha*, *liigu*, *luadie* / *loadie*, *l’uubie*, *luzikka*, *lutikku*, *lyhyt*, *lyödä*, *lähtä*, *lämmy*, *löttö*, *löyly*, *meččä*, *min’n’a*, *mul’u*, *mussikka*, *myyvä*, *nagris’*, *neidine*, *nellä* / *nel’l’*, *niitteä*, *n’okke*, *nuatti*, *nur’m*, *nybly*, *näblie*, *nälg*, *näppi*, *or’hoi*, *pagina*, *pal’l’aš*, *panda*, *pereh*, *perti*, *passibo*, *pieni*, *pualikk*, *pun’u*, *pyhä*, *pyy*, *päissär*, *rihma*, *riihi*, *rippiel*, *rökkö*, *sar’ouha*, *sendäh*, *siibi*, *sinine*, *sizär*, *suari*, *sud’d’a*, *sängi*, *zel’l’u*, *zor’a*, *tedri*, *tiedeä* / *tiddeä*, *tiedo*, *tikku*, *tina*, *tyttö*, *tyvi*, *täčyöi*, *tädöi*, *tämä*, *uni*, *us’s’a*, *velli*, *Ven’a*, *veneh’*, *veri*, *vezi*, *vierdä*, *viizi*, *vily*, *virbi*, *yksi*.

Table 13. Geminates in Karelian dialects

	GenV 167	GenS 208–214	Rjag 33–35	Palm 17	Manž 9	RjagL 66–69	AnisF 48	Bar 29–34, 43–44
kk	*kk*	*akka*	*kukko*	*akka*	*akka*	*häkki*	*ukko*	*puikko* *palkke*
tt	*tt*	*rutto*	*katto*	*aitta*	*aitta*	*huttu*	*otti*	*huttu* *polttada*
pp	*pp*	*pappi*	*šuappuat*	*kirppu*	*appi*	*čuppu*	*rippuu*	*loppida* *čirppi*
čč	*čč*		*meččä*	*pučči*	*veičči*	*lačču*	*očču*	*kaččoda* *karčču*
dd	*suďďa*		*laďďata*			*laďďata*	*suďďu*	
ll	*nellä*	*velli*	*villa*	*jaллat*	*halla*	*villu*	*pellot*	*halle*
mm	*mm*	*lammaš*	*hammaš*	*лammaš*	*hammaš*	*kummu*	*kämmen*	*kumme*
nn	*miň'ňa*	*nänni*	*panna*	*linna*	*linna*	*enne*	*rinnus*	*kunne*
rr	*rr*	*kärret*	*hirret*	*purra*	*härrät*	*arreh*	*porras*	
šš		*bošši*	*vuašša*	*muššat*	*laššut*	*kuaššu*	*kaššali*	*bošši*
ss	*as's'a*	*bes's'oda*	*paissat*	*issun*	*mussikka*	*rossu*	*vuassu*	*kasse*
hh	*hh*					*oldihhäi*		
vv			*r'uvvut*	*hawvašta*		*luvva*	*havvu*	
jj			*pujja*	*naija*		*äjjü*		

Lexemes: *aitta*, *akka*, *appi*, *arreh*, *as's'a*, *bes's'oda*, *bošši*, *čirppi*, *čuppu*, *enne*, *halla* / *halle*, *hammaš*, *havvu*, *hawda*, *hirži*, *huttu*, *häkki*, *härgä*, *istuo*, *jalga*, *kaččoda*, *karčču'*, *kasse*, *kaššali*, *katto*, *kirppu*, *kuaššu*, *kukko*, *kummu* / *kumme*, *kunne*, *kämmen*, *kärgi*, *lačču*, *laďďata*, *lammaš*, *laštu*, *linna*, *loppida*, *luvva*, *meččä*, *miň'ňa*, *mussikka*, *mušta*, *naija*, *nellä*, *nänni*, *očču*, *oldihhäi*, *ottua*, *paistua*, *palkke*, *panna*, *pappi*, *peldo*, *polttada*, *porraš*, *pučči*, *puija*, *puikko*, *purra*, *rinnus*, *rippuo*, *rossu*, *rutto*, *r'uvvut*, *suďďa* / *suďďu*, *šuapaš*, *ukko*, *veičči*, *velli*, *villa* / *villu*, *vuašša* / *vuassu*, *äjjy*.

Table 14. Geminates in standard varieties of Karelian

	Anis 26–27	ZaiK 26–27 / ZaiV 45–46	Mark 13 / Pyöl 16
kk	*sukka*	*čikko* *pölkky*	*lukku*
tt	*ottua*	*huttu* *pirtti*	*tuatto*
pp	*leppä*	*nappi* *harppu*	*loppu*
čč	*veičči*	*pöččö* *värčči*	*počči*
ll	*kello*	*villa* *vil'ľa*	*villu*
mm	*lammas*	*hammaš*	*hommu*
nn	*kanna*	*panna* *min'ńa*	*anna*
rr	*varret*	*purra*	*sorrat*
šš		*peššä*	*bošši*
ss	*kassa*	*missä*	*vuassu*
vv		*luuvva*	*tuvva*

Lexemes: *andua*, *bošši*, *čikko*, *hammaš*, *harppu*, *hommu*, *huttu*, *kandua*, *kassa*, *kello*, *lammas*, *leppä*, *loppu*, *lukku*, *luuvva*, *min'ńa*, *missä*, *nappi*, *ottua*, *panna*, *peššä*, *pirtti*, *počči*, *purra*, *pöččö*, *pölkky*, *sordua*, *sukka*, *tuatto*, *tuvva*, *varzi*, *veičči*, *villa* / *villu*, *vil'ľa*, *vuassu*, *värčči*.

Table 15. Consonant clusters in Karelian

2nd consonant / 1st consonant			obstruents																sonorants			
			plosives and affricates								fricatives and semivowels								nasal		lateral	tremulant
			p	**t**	**k**	**b**	**d**	**g**	**č**	**c**	**s**	**š**	**z**	**ž**	**h**	**f**	**v**	**j**	**m**	**n**	**l**	**r**
obstruents	plosives and affricates	**p**	–	*pt*	*pk*				pč		ps	pš						*pj*		pn	pl	pr
		t	*tp*	–	tk						*ts*					*tf*	tv	*tj*	*tm*	*tn*	*tl*	tr
		k		*kt*	–						ks	kš					*kv*			*kn*	kl	kr
		b				–	bd						*bz*					bj		*bn*	bl	br
		d				*db*	–	*dg*						dž			dv	*dj*	dm	dn	*dl*	dr
		g					gd	–					*gz*				*gv*	gj	*gm*	*gn*	gl	gr
		č		*čt*	čk				–								*čv*		*čm*	*čn*		
	fricarives and semivowels	**s**	*sp*	st	sk						–					*sf*	*sv*	*sj*	*sm*	*sn*	*sl*	sr
		š	šp	št	šk							–					šv		šm	šn	*šl*	*šr*
		z				*zb*	*zd*	*zg*					–				zv		zm	zn	*zl*	zr
		ž				*žb*	*žd*							–			žv	*žj*	*žm*	*žn*	žl	*žr*
		h	*hp*	ht	hk		*hd*								–		hv	hj	hm	hn	hl	hr
		f		*ft*	*fk*											–					*fl*	*fr*
		v	*vt*		*vk*		*vd*				*vs*						–		*vm*	*vn*	*vl*	*vr*
sonorants	nasal	**m**	mp		*mk*	mb	*md*		*mč*	*mc*	*ms*	mš			*mh*	*mf*	*mv*	*mj*	–	mn	ml	
		n		nt	nk	nb	nd	ng	nč	*nc*	ns	nš	nz	nž	nh	*nf*	*nv*	nj		–	*nl*	*nr*
	lateral	**l**	lp	lt	lk	lb	ld	lg	lč	*lc*	*ls*	lš	*lz*	lž	lh	*lf*	lv	lj	lm	ln	–	
	tremulant	**r**	rp	rt	rk	rb	rd	rg	rč	*rc*	rs	rš	rz	rž	rh	*rf*	rv	rj	rm	rn	*rl*	–

Phonology: Vowel alternations

Table 16. Stressed-syllable vowel alternations in Karelian dialects

	GenV 171–172	GenS 215, 217	Rjag 23–24	Palm 21–22	Bel 22–23	GenA 135	RjagL 94, 102, 117	AnisF 11–14
a-a > **ä-ä >**	*p**oa**n* *h**eä**n*			*j**oa**n*	*j**ua**n* *h**iä**t*	***oa** / **aa*** ***eä** / **ää***	*p**ua**n / p**aa**n* *h**iä**n / h**ee**n*	*p**ua**t* *h**iä**s*
a-e > **ä-e >**			*l**ua**šša* *k**iä**n*	***ai*** *k**öä**ssä*		***ae** / **ai*** *m**äe**s /m**äi**s*	*m**äi**n* *v**äi**n*	*l**ai**s* *v**äi**s*
e-a > **e-ä >**						*ie / ei*		 *vien*
e-e >		*v**ee**s* *r**ee**t*				*r**ie**d* *v**ei**s*	*m**ei**n*	*r**ie**t* *v**ie**s*
i-a > **i-ä >**				***iä**n* *p**ie***		*p**ii*** *p**ie**ttäv*		 *p**ie**n*
i-e >			*h**ie**n*				*h**ie**n*	*h**ie**s*
V > Vi	*rais* *ruis* *koissa*			*rais* *paissa*		*rais* *ruis* *kois*	*rais* *ruis* *koin*	*rais* *paišta*
uo > uu **yö > yy**	*uu* *üü*	*vuuvet* *lyyväh*	*vuuvee*		*ruwvalla*		*vuvven* *lüvvä*	*ruvvat* *syvvä*
ie > ii	*ii*		*en tiijä*				*tijjän*	

Lexemes: *higi*, *hädä*, *igä*, *jagua* / *jagoa*, *kodi* / *koti*, *käzi*, *lagi*, *lyyvä* / *lyvvä*, *mezi*, *mägi*, *pada* / *pata*, *paista*, *pidiä* / *pideä*, *rais* / *raiš*, *regi*, *ruis*, *ruoda* / *ruodu*, *ruoga* / *ruogu*, *syvvä*, *tiediä* / *tiedeä*, *vediä* / *vedeä*, *vezi*, *vuozi*, *vägi*.

Table 17. Alternations of stressed vowels in standard varieties of Karelian

	Bubr 15–18	Aht 21–22	ZaiK 30	Mark 23
a-a > **ä-ä >**	*ju**a**n, pu**a**t* *hi**ä**t*	*so**a**n* *he**ä**n*	*ju**a**n* *hi**ä**ssä*	*ju**a**n, su**a**t* *hi**ä**t*
a-e > **ä-e >**	–	*m**ä**es* / *m**ä**is* *k**ä**il*	*l**ua**ssa*	*l**ai**t* *m**ä**it*
e-ä >	–			*vien*
e-e >	–	*r**ie**t* / *r**ei**t* *v**ie**n* / *v**ei**n*	*r**ie**llä*	*r**ie**t*
i-a > **i-ä >**	–	*ei p**ie***		
V > Vi	–	*kois* *paista*	*koissa*	
uo > uu **yö > yy**	*ruuvalla*			
ie > ii	*tiijän*			

Lexemes: *hädä* / *hätä*, *jagua* / *jakua*, *kodi* / *koti*, *käzi*, *lagi* / *laki*, *mägi*, *pada*, *paista*, *pideä*, *regi* / *reki*, *ruoda*, *sada*, *tiediä*, *vezi*.

Table 18. Word-stem final vowel alternations in Karelian dialects[172]

	GenV 172	GenS 215	Rjag 56, 77–80, 114–121	Palm 26, 65	Bel 53–65, 81–111	GenA 135–136	RjagL 94, 117	AnisF 30–97, 119–162
a : o	*kaloa* *andoa*	*aigoa* *tappoa* *magoan*	*paikka : paikkoa*	*jaŋgoa* *andoa*		*harakkoa* *andoa* *čakata : čakkoan*		

[172] Not all sources of this study detail word-stem vowel alternation, which is why the data in the table has been gathered from chapters on declension and conjugation and from inflectional tables.

a : u			*kala : kalua* *šalvan : šalvua* *harata : haruan*		*ruga : rugua* *kannan : kandua* *kuhmuan : kuhmata*		Smz: *kala : kalua* *otta- : ottua* *čakata : čakkuan*	*kana : kanua* *kanda- : kandua* *tavata : tabuan*
ä : e	*pitembeä* *löüdeä*	*leibeä* *löydeä*				*selgeä* *tiedeä*	Tlm: *päivä : päivee*	
ä : i			*külä : külie* *külvän : külvie* *lizätä : lizien*		*kylä : kyliä* *tiijän : tiediä* *häimiän : häimätä*		Syamozero: *päivä : päivie*	*igä : igiä* *pietän : piettiä*
ä : ö	*pitemböä* *löüdöä*			*heinöä* *vedöä*				
o : u	*ukko : ukku|a/o* *kisson : kisku|a/o* *tahota : tahku|a/on*	*siduo*	*šordo : šordua* *šanon : šanuo*	*ruguo*	*poro : poruo* *šanon : šanuo*	*hebuo* *kačču*o Tlm: *uskua*	*kudo- : kuduo*	*airo : airuo* *kudo- : kuduo*
ö : y	*männikkö : männikkü|ä/ö* *eleüvün : eleüdü|ä/ö*	*perindyö*	*mökkö : mökküä*	*tüttüe*	*börö : böryö* *kyvön : kydyö*			*kylvö : kylvyö*
e : i	*tähti|e/ä* *iten : itki|e/ä* *halleta : halgie* *kaštien*	*laskie* *elä kägie*	*kaške- : kaškie* *lähen : lähtie* *langeta : langien* *vuate : vuatiet*	*leškie* *itkie*	*kive- : kivie* *käšše*n : *käškie* *rubien : ruveta* *kašše : kaštien*	*regie* *keskie* *paizien*	*luge- : lugie*	*kive- : kivie* *luge- : lugie*
U : UO	*lühüt : lühüöt*	*koivut : koivuolla* *miehyt : miehyöllä*	*vüöhüt : vüöhüöt* *piduhuš : piduhuon*	*lühüet*	*lyhyt : lyhyön* *pölyön : pölytä*	*tanhuon* *kätküöh* *lühüöd*	*lapsut : lapsuot*	*yöhyt : yöhyöh*

Lexemes: *aiga*, *airo*, *andoa*, *börö*, *čakata*, *eleydyö / eleydyä*, *halleta*, *harakku*, *harata*, *hebo*, *heinä*, *häimätä*, *igä*, *itkie / itkiä*, *jalga*, *kačču*o, *kala*, *kana*, *kandua*, *kaški*, *kašše*, *keski*, *kiskuo / kiskua*, *kivi*, *koivut*, *kuduo*, *kuhmata*, *kydyö*, *kylvie*, *kylvö*, *kylä*, *käitä*, *kätkyt*, *langeta*, *lapsut*, *laskie*, *leibä*, *leški*, *lizätä*, *lugie*, *lyhyt*, *lähtie*, *löydeä / löydöä*, *miehyt*, *moata*, *männikkö*, *mökkö*, *ottua*, *paikka*, *paize*, *perindö*, *piduhuš*, *piettiä*, *pitembi*, *poro*, *päivä*, *pölytä*, *regi*, *ruga*, *rugo*, *ruveta*, *selgä*, *siduo*, *šalvua*, *šanuo*, *šordua*, *tahota*, *tanhut*, *tappoa*, *tavata*, *tiedeä / tiediä*, *tyttö*, *tähti*, *ukko*, *uskuo / uskua*, *vedöä*, *vuate*, *vyöhyt*, *yöhyt*

Table 19. Word-stem final vowel alternations in standard varieties of Karelian

	Bubr 42–43, 65–78	Aht 21–22, 46–55, 85–95	Anis 50, 103	ZaiK 30–31	Mark 67–68 / Pyöl 17–18
a : o		*randa : randoa* *annan : andoa* *leikata : leikkoan*			
a : u	*randa : randua* *anda- : andua* *salvata : salbuan*		*suola : suolua* *ruada- : ruadua* *salbuan : salvata*	*tikka : tikkua*	*oravan : oravua* *kannan : kandua* *katkata : katkuan*
ä : e		*selgä : selgeä*			
ä : i	*händä : händiä* *lizätä : liziän*		*leibä : liebiä* *pidä- : pidiä*		*nenän : neniä* *vedä- : vediä* *lükätä : lükkiän*
ä : y				*kynkä : kynkyä*	
o : u	*kaivo : kaivuo* *lainota : lainuon*	*verko : verkuo* *kačon : kačču̇o*	*talo : taluo* *kačču̇- : kačču̇o*	*korvo : korvuo*	*kolo : koluo* *sanon : sanuo* *upota : uppuon*
ö : y			*tyttö : tyttyö*	*vičikkö : vičikkyö*	
e : i	*siibe- : siibie* *ruveta : rubien*	*korbe- : korbie* *pollen : polgie* *päre : pärien*	*olge- : olgie* *luge- : lugie*	*vuate : vuattiessa*	*nimeh : nimie* *luven : lugie* *ruveta : rubien* *kate : kattien*
U : UO	*siivyt : siibyön* *lukuta : lukkuon*	*kätkyt : kätkyön*		*ainut : ainuolla* *kätyt : kätkyössä*	*lapsut : lapsuot*

Lexemes: a*inut*, *andoa* / *andua*, *händä*, *kačču̇o*, *kaivo*, *kandua*, *kate*, *katkata*, *kolo*, *korbi*, *korvo*, *kynkä*, *kätyt* / *kätkyt*, *lainota*, *lapsut*, *leibä*, *leikata*, *lizätä*, *lugie*, *lukuta*, *lykätä*, *nenä*, *nimi*, *olgi*, *oravu*, *pidiä*, *polgie*, *päre*, *randa*, *ruadua*, *ruveta*, *salvata*, *sanuo*, *selgä*, *siibi* / *siivyt*, *suola*, *talo*, *tikka*, *tyttö*, *upota*, *vediä*, *verko*, *vičikkö*, *vuate*.

Table 20. Word-stem vowel alternations in Karelian dialects

	GenV 170–172	GenS 233–239	Rjag 58–60, 129–131, 140–141	Palm 38–39, 56, 60	Manž 24–26, 50	Bel 56–67, 79–111	GenA 131	RjagL 94, 205–213, 307–327	AnisF 16–18	Bar 69–71, 149–150, 175	Virt 17–26, 105–108
a: o / uo	*paloja autoin*	*nahka : nahkoi*	*nahka : nahkoi kažva- : kažvoin*	*velga : velgoja annan : annoin*	*kala : kaloilla*	*šanoja : šanojih kanda- : kannoin*	*velgoi salvoi*	*kana : kanoi anda- : andoi*	*vaza : vazoi annammo : annoimmo*	*harva- : harvuoit andan : anduoin*	*piiragaD : piiraguoiD andan : anduoin*
a : Ø	*poigie joudi*	*murran : murrin*	*rokka : rokkie polta- : polti*	*poiga : poigie*	*koira : koirilla ammullan : ammullin*	*ruga : rugih*	*buolii parendi*	*soba : sobih puzerdan : puzerdin*	*kova : kovis otammo : otimmo*	*koira- : koirit otan : otin*	
a : i				*oššan : oššiin*		*kova : koviin šouda- : šouviin*					*oigedaD : oigediiD*
ä : ö / yö				*emändä : emännöildä*	*hämärä : hämäröin*	*händä : händöih*	*riehtilöil*		*värtinäl : värtinöil*	*händä- : händüöit*	
ä : Ø	*emändiä / emändie*		*lehmä : lehmie külvä- : külvi*	*leibä : leibie*	*šilmä : šilmillä*	*kylä : kylih*	*vägevii ečitti*	*hüvä : hüvih*	*tähkäs : tähkis jätän : jätin*	*keühä- : keühit löüdän : löüdin*	*šelgäD : šelgiD*
ä : i				*löüvän : löüviin*		*vällä : välliin tiedä- : tiijiin*					
e : Ø		*kylge- : kylgih pezen : pezin*	*kive- : kivie kitke- : kitki*	*hernehet : hernehie лuge- : лugiziin*	*lapše- : lapšilla*	*šuure- : šuurih luge- : lugiziin*	*lugi*	*lumeh : lumih sanelen : sanelin*	*lumes : lumis kuulet : kuulit*	*kive- : kivit olen : olin*	*oлen : olin*
e : i	Kst: *käveliisin*			*valehtelen : valehteliin*		*piene- : pieniin tule- : tuliin*					*argeD : argiiD*

i : Ø							*ečči̯s*			*kaži : kažiit*	*bučči̯D : bučči̯iD*
VV : V	*moa : maida* *vie- : vei* *puu : puida*	*moa : maida* *syön : söin*	*tuuva : toin* *šua- : šaizin*	*hiemoa : hiemaitta* *šoan : šain* *uinuon : uinoin*	*hiemi̯a : hiemoilla* *avi̯an : avain*	*harmua : harmaih* *valgie : valgein* *šua- : šain*	*soa : sai* *müö : möi* *katkoa- : katkai*	*tuon : toin* *čakkuan : čakkain*	*maguan : magain*		*puuD : puiD*

Lexemes: *ammuldi̯a*, *andua* / *andoa* / *andai*, *argi*, *auttoa*, *avata*, *bučči*, *buolu*, *čakata*, *ečči̯e*, *emändä*, *harmua*, *harve*, *herneh*, *hiemoa* / *hiemi̯a*, *hyvä*, *hämärä*, *händä* / *händy*, *joudoa*, *jättiä*, *kala*, *kana*, *kandua*, *kaži*, *kažvua*, *katkata*, *keyhe*, *kitkie*, *kivi*, *koira* / *koire*, *kova*, *kuulla*, *kylgi*, *kylviä*, *kylä*, *kävellä*, *lapši*, *lehmä*, *leibä*, *lugie*, *lumi*, *löydöä* / *löydädä*, *moa*, *muata*, *murdoa*, *myyvä*, *nahka*, *oiged*, *olda*, *oštoa*, *ottua* / *ottada*, *pala*, *parendoa*, *pessä*, *pieni*, *piirag*, *poiga*, *poltua*, *puzerdua*, *puu*, *riehtil*, *rokka*, *ruga*, *salvoa*, *sanella*, *soba*, *syyvä*, *šana*, *šelg*, *šilmä*, *šoudua*, *šuaha* / *šoaha* / *suaja*, *šuuri*, *tiediä*, *tulla*, *tuuva* / *tuvva*, *tähky*, *uinota*, *valehella*, *valgie*, *vaza*, *velgu*, *viijä*, *vägevy*, *vällä*, *värtin*.

Table 21. Words-stem vowel alternation in standard varieties of Karelian

	Bubr 43–44, 50–51, 65–78	Aht 11–18	Anis 61–63	ZaiK 31–32	Mark 19–20 / Pyöl 17–18
a : o	*randa : rannoilla* *anda- : annoin*	*sada : sadoi* *andav : andoi*	*pada : padoih* *annan : annoin*	*kualan : kualoin*	*vihmas : vihmois* *annan : annoin*
a : Ø	*tora : torilla* *harva : harvin*	*soba : sobii* *ostav : osti* *vanha : vanhin*	*sorza : sorzil* *muutan : muutin*	*opastujalla : opastujilla* *kavotan : kavotin*	*oksal : oksil* *nostan : nostin* *hoikka : hoikin*
ä : ö		*riehtil : riehtilöi*	*riehtilä : riehtilöin*	*jyrinällä : jyrinöillä*	
ä : Ø	*händä : hännillä* *elä- : elin*	*hädä : hädii* *keändäv : keändi* *märgä : märrin*	*kylä : kylis*		*lehmäle : lehmile* *vestän : vestin*
e : Ø	*perehe- : perehinä* *luven : luvin* *suure- : suurin*	*kivel : kivil* *menen : menin*	*onge- : ongilois / ongis* *luven : luvin*	*jalaččimešša : jalaččimissa* *mänen : mänin*	*kieles : kielis* *pezen : pezin* *kaunehet : kaunehin*
VV : V	*kiugua : kiugaida* *salbuan : salbain* *korgie : korgein*	*peät : päis* *tuou : toi* *langien : langein*	*myön : möin* *salbuan : salbain* *korgie : korgein*	*mualla : mailla* *hyppyän : hyppäin* *yöllä : öillä* *puussa : puissa*	*toruan : torain* *tuon : toin*

Lexemes: *andua* / *andoa*, *eliä*, *harva*, *hoikku*, *hypätä*, *hädä*, *händä*, *jalačin*, *jyrinä*, *kaunis*, *kavottua*, *keändeä*, *kieli*, *kiugua*, *kivi*, *korgie*, *kualua*, *kylä*, *langeta*, *lehmy*, *lugie*, *mennä* / *männä*, *mua*, *muuttua*, *myyvä*, *märgä*, *nostua*, *oksu*, *ongi*, *opastuja*, *oppie*, *ostoa*, *pada*, *pereh*, *pessä*, *peä*, *puu*, *randa*, *riehtilä* / *riehtil*, *sada*, *salvata*, *soba*, *sorza*, *suuri*, *tora*, *torata*, *tuvva*, *vanha*, *vestiä*, *vihmu*, *yö*.

Phonology: Consonant gradation

Table 22. Quantitative gradation in Karelian dialects

	GenV 168	GenS 212–213	Rjag 47–48	Palm 20–21	Bel 25–26	Manž 8	GenA 126–127	RjagL 98–101	AnisF 65–81, 83–93	GenL 15	Bar 48
kk : k	*palkkoa- : palkata*	*akka : akat*	*liekku : liekun* *rokka : rokan*	*akka : akan* *virkkoa : virkan*	*vakka : vakat* *takka : takašša*	*tukka : tukan* *paikka : paikan*	*kirikkkö : kirikön* *kaikki : kaiken*	*haukkuo : haukun* *harakku : harakan*	*lukku : lukut* *luzikku : luzikal*	*rikkomah : rikon* *mužikka : mužikale*	*akke : akat* *palkke : palkat*
tt : t	*katta- : katan*	*sattuo : ei satu*	*katto : katon* *tuatto : tuaton*	*ottoa : otan* *toatto : toaton*	*šoittu : šoitan* *nuotta : nuotalla*	*keittiä : keitän* *löttö : lötön*	*ottoa : otan* *aittu : aitan*	*ottua : otan* *kuutti : kuutin*	*aittu : aitas* *suovattu : suovatat*	*bohatte : bohatal* *ottada : ota*	*suatto : suatot* *šuntti : šuntit*
pp : p	*kauppa : kaupičče-*		*leppä : lepän* *loppi : lopin*	*pappi : papin* *kirppu : kirpun*	*kappa : kapašta* *šoppi : šopešša*	*loppu : lopun* *tappja : tapan*	*loppie : loped* *viippoan : viipata*	*seppü : sepän* *lippahan : lipas*	*hoppu : hoput* *oppie : opin*	*loppuu : lopul*	*leppe : lepät* *tirppada : tirpan*
čč : č	*ečči- : ečindä*		*očča : očan* *mečča : mečän*	*mečča : mečän* *paččahat : pačaš*	*vačča : vačašša* *očča : očalla*	*pučči : pučin* *kačču o : kačon*	*očču : očas*	*vačču : vačan* *varačču : varačun*	*ečči e : ečin* *brihačču : brihačut*	*meččäh : mečäs* *päčči : päčile*	*vačče : vačat* *tülčče : tülčät*
ss : s							*brossu : brosan*	*kossa : kosan* *viessuan : viesata*	*riissu : riisus* *vuassu : vuasas*		
šš : š							*koaššu : koašan* *bošši : bošil*	*kuaššu : kuašan* *pläššie : pläšin*	*pläššie : pläšin* *pöšši : pöšis*		*bošši : bošit*
hh : h							*duuxxu : duuxan*				

Lexemes: *aittu*, *akka* / *akke*, *bohatte*, *bošši*, *brihačču*, *brossu*, *duuhhu*, *ečči e*, *ečindä*, *harakku*, *haukkuo*, *hoppu*, *kačču o*, *kaikki*, *kappa*, *katto*, *kattoa*, *kaupita*, *kauppa*, *keittiä*, *kirikkö*, *kirppu*, *kossa*, *kuaššu* / *koaššu*, *kuutti*, *leppä* / *leppe*, *liekku*, *lipas*, *loppie*, *loppu*, *lukku*, *luzikku*, *löttö*, *mečča* / *mečče*, *mužikke*, *nuotta*, *očča* / *očču*, *ottua* / *ottoa* / *ottada*, *oppie*, *pačaš*, *paikka*, *palkata*, *palkke*, *pappi*, *pläššie*, *pučči*, *päčči*, *pöšši*, *riissu*, *rikkoda*, *rokka*, *sattuo*, *seppy*, *suatto*, *suovattu*, *šoittu*, *šoppi*, *šuntti*, *takka*, *tappja*, *tirppada*, *tuatto* / *toatto*, *tukka*, *tylčče*, *vačča* / *vačču* / *vačče*, *vakka*, *varačču*, *viesata*, *viipata*, *virkka*, *vuassu*.

Table 23. Quantitative gradation in standardised varieties of Karelian

	Bubr 18	Aht 26–27	Anis 36	ZaiK 32–33 / ZaiV 49–50	Mark 22–23 / Pyöl 18
kk : k	*akka : akat*	*ukko : ukon* *kirikkö : kirikön*	*tikku : tikut* *tukku : tukut*	*laukku : laukušša* *pilkkuo : pilkon*	*lukku : lukut* *liikkuo : liikun*
tt : t	*kattua : katan*	*aitta : aitan* *ottoa : otin*	*aitta : aitat* *ottua : otat*	*huttu : hutušša* *karttuan : kartata*	*tüttö : tütöt* *soittua : soitan*
pp : p	*seppä : sepät*	*seppä : sepän* *loppie : lopen*	*leppä : lepät* *näppi : näpit*	*kuppi : kupit* *helppo : helpot*	*keppi : kepit* *hüppie : hüpin*
čč : č	*meččä : mečät*	*meččä : mečän*	*vičča : vičat* *paččahat : pačas*	*kačču : kačon* *värčči : värčissä*	*počči : počit* *kuaviččou : kuavičen*
ss : s		*voassa : voasan*			*kassu : kasat* *pussi : pusit*
šš : š		*grošša : grošan* *bošši : bošit*			*bošši : bošit* *šušši : šušit*
hh : h		*duuhhu : duuhun*			
ff : f		*groaffa : groafan*			

Lexemes: *aitta*, *akka*, *bošši*, *duuhhu*, *groaffa*, *grošša*, *helppo*, *huttu*, *hyppie*, *kačču*o, *kartata*, *kattua*, *keppi*, *kirikkö*, *kassu*, *kuavita*, *kuppi*, *laukku*, *leppä*, *liiffa*, *liikkuo*, *loppie*, *lukku*, *mečča*, *näppi*, *ottua* / *ottoa*, *pačas*, *pilkkuo*, *počči*, *pussi*, *seppä*, *soittua*, *šušši*, *tikku*, *tukku*, *tyttö*, *ukko*, *vičča*, *voassa*, *värčči*.

Table 24. Qualitative gradation of plosives between vowels in Karelian dialects

	GenV 169–170	GenS 212–213, 217	Rjag 48–50	Palm 21–23	Bel 21–25	Manž 9	GenA 127–129	RjagL 101–103	AnisF 51–62
g : Ø	*roaga : roan* *jaga- : joan*	*sega : seas* *kogo : koos*	*vägi : viän* *nägi : niän*	*jagoa : joan* *roaga : roan*	*jagua : juan*	*lagi : l̩ian* *viga : viän*	*igä : iän / eän* *magoan : moata*	*higi : hien* *mägi : mäin*	*regi : riet* *lagi : lait*
g : j	*liiga : liijan* *aiga : ajan*	*poiga : poijat*	*regi : rejen*	*regi : rejellä* *poiga: poijan*	*regi : rejet* *aiga : aijalla*	*liiga : liijän*	*vägi : väjen /* *väen*	*liga : lijan* *siigu : sijjan /* *siijan*	*igä : ijät* *poigu : poijat*
g : v	*leuga : leuvan* (Pdn: *leuan*) *jogi : joven*	*taguo : tavon* *jogi : jovel*	*ruga : ruvan* *rugo : ruvon*	*jogi : joven* *riwgu : riwvun*	*kego : kevošša* *haugi :* *hawvilla*	*lugie : luven* *haugi : hauven*	*hago : havon* *leuga : levvat*	*magu : mavun* *haugi : havvin*	*jogi : jovet* *leugu : levvat*
g : g			*stoga : stogan*	*roaga : roagat*			*roaga : roagan*		*kiägy : kiägät* *kruugu : kruugat*
d : Ø	*hädä : heäššä*	*pada : poan*	*pada : puan* *kaadua : kuan*	*pada : poašša* *roadau : roan*	*hädä : hiät* *ruadau : ruan*	*pidiä : pien*	*pada : poan* *vedä- : veitäh*	*pada : puan /* *paan* *sada : suan /* *saan*	*sada : suat* *hädä : hiät*
d : j	*loadie : loajin* *vede- : vejen, vein / ve´en*	*maido : maijol* *tiediä : tiijän*	*kaida : kaijat* *luadie : luajit*	*maido : maijon* *viide- : viijen*	*maido : maijošša* *tiedäy : tiijän*	*maido : majon* *riida : riijan*	*tiediä : tijjän* *viide- : vijjen*	*luadie : luajin /* *laadie : lain*	*rida : rijas* *maido : maijot*
d : v	*roado : roavon* *koda : kovašša*	*siduo : sivon* *lauda : lauvat* *vuode- : vuuvet*	*koda : kovan* *redu : revušša*	*mado : mavon* *hawda :* *hawvašta*	*redu : revušša* *lawda : lawvalla*	*redu : revun* *pyydiä : pyyvän*	*mado : mavon* *hauda : havvas*	*mado : mavon* *soudua : sovvan*	*redu : revus* *ruado : ruavol*
d : d			*sluuda : sluudan*	*žiida : žiidat*			*reädü : reädüt*		*puudu : puudat*
b : v	*šiibi : šiivet*		*n̓aba : n̓avan* *rebo : revon*	*šoba : šovan* *hoaba : hoavan*	*rebo : revot* *huaba : huavalla*	*leibä : leivän* *šoba : šovan*	*soba : sovaks*	*taba : tavan* *siibi : siiven*	*abu : avus* *huaba : huavat*
b : b	Pdn: *šiibet*		*buabo : buabon*	*baba : baballa*			*griba : griban*	*boba : boban*	

Lexemes: *abu*, *aiga*, *baba* / *buabo*, *boba*, *griba*, *hago*, *hauda*, *haugi*, *higi*, *huaba* / *hoaba*, *hädä*, *igä*, *jagua* / *jagoa*, *jogi*, *kaadua*, *kaida*, *kego*, *kiägy*, *koda*, *kogo*, *kruugu*, *lagi*, *lauda*, *leibä*, *leuga* / *leugu*, *liga*, *liiga*, *luadie* / *loadie*, *lugie*, *mado*, *magu*, *maido*, *moata*, *mägi*, *n̓aba*, *nähä*, *pada*, *pidiä*, *poiga* / *poigu*, *puudu*, *pyydiä*, *rebo*, *redu*, *regi*, *rida*, *riida*, *riugu*, *reädy*, *roaga*, *ruadau* / *roadau*, *ruado* / *roado*, *ruga*, *rugo*, *sada*, *sega*, *siduo*, *šiibi* / *siibi*, *siigu*, *sluuda*, *soba* / *šoba*, *soudua*, *stoga*, *žiida*, *taba*, *taguo*, *tiediä*, *vediä*, *vezi*, *viga*, *viizi*, *vuoži*, *vägi*.

Table 25. Qualitative gradation of plosives following sonorants in Karelian dialects

	GenV 169–170	GenS 212–213	Rjag 48–49	Palm 21–23	Bel 22–25	Manž 8	GenA 127	RjagL 101–103	AnisF 46, 52–63
lg : ll	Pdn: *nällästü-* *jalga : jalloilla*	*sylgi : syllet*		*nälgä : nällällä* *jалga : jаллan*	*kylgi : kyllellä* *nylgie : nyllen*	*jälgi : jällen* *olgi : ollen*	*hüllätä*	*jalgu : jallan* *velgu : vellan*	*velgu : vellat* *kulgie : kullen*
lg : l	*nälgä : näläššä* *jalga : jalalla*		*jalga : jalan* *velga : velan*						
rg : rr	Pdn: *härgä : härrän* *kurgi : kurret*	*kärgi : kärret*	*šarga : šaarrašta*	*härgä : härrän* *argi : arren*	*argi : arrekši* *kurgi : kurret*	*härgä : härrän*	*purrammo*	*kurgi : kurren* *kirguo : kirrun*	*argi : arres* *purgua : purran*
rg : r	*härgä : härän* *kurgi : kuret*								
ng : ng		*hangi : hanget*	*längie : länget*	*hengi : hengen*	*hango : hangolla*	*langa : langat*	*hengi : hengen*		*langa : langat* *hengi : hengis*
ld : ll	*keännelläh*	*peldo : pellot*	*šilda : šillan* *viildää : viillän*	*pелdo : pеллon* *juолdoa : juоллan*	*peldo : pellot* *ilda : illalla*	*ilda : illan*	*valda : vallan* *peldo : pellon*	*kuldu : kullan* *peldo : pellon*	*aldo : allot* *kuldu : kullat*
ld : l			*šilda : šilat*				*kieländü*		*kieldiä : kielän*
ld : ld							*viheldä- :* *viheldän*	*viheldiä :* *viheldän*	
rd : rr	*purrah*	*parde- : parret*	*parda : parralla*	*parda : parran* *virde- : virren*	*pirda : pirrašša* *merda : merralla*	*parda : parran*	*parde- : parred* *vierdä- :* *vierrämmö*	*pardu : parran* *verdu : varran*	*murdo : murrot* *sordua : sorran*
rd : r							*kierdä- : kierän*	*kierdiä : kierän*	*siirdiä : siirän*
rd : rd							*kumarduo :* *kumardammos*	*puzerdua :* *puzerdan*	
nd : nn	*pannah*	*händä : hännät*	*randa : rannašša* *kandaa :* *kannoimma*	*kandeлen :* *kannелла* *eländä : elännän*	*kanda : kannalla* *randa : rannašša*	*andi̯a : annan* *kanda : kannan*	*tunde- :* *älä tunne* *kuundele-:* *kuunnelta*	*kando : kannon* *tundie : tunnen*	*kandua : kannat* *randu : rannal*
nd : n							*tunde- : tunen* *kuundele-:* *kuunelta*		
nd : nd		*emändä : emändän*					*avando :* *avandot*	*kohendua :* *kohendan*	*emändy :* *emändät*

mb : mm	*ambuo : ammun*		*lambi : lammilla* *ramba : rammalla*	*hambahat : hammaš*	*ambuo : ammun* *lambahat : lammaš*	*lembo : lemmon* *hambahat : hammaš*	*lambaha- : lammas*	*lembi : lemmen* *rambu : ramman*	*lambi : lammis* *lambahat : lammas*
mb : mb							*enämbi : enämbän*	*parembi : paremban*	*suurembi : suurembas*
Cb : Cv	*tarbehe- : tarveh* (Pdn: *tarbeh*)		*virbi : virven*	*šaŋboan : šalvattu* *turba : turvan*	*šalba : šalvat* *arba : arvašta*		*turbehet : turveh*	*külbie : külven* *varbu : varvan*	*korbi : korves*

Lexemes: *aldo*, *ambuo*, *andi̯a*, *arba*, *argi*, *avando*, *eländä*, *emändä* / *emändy*, *enämbi*, *hammaš*, *hangi*, *hango*, *hengi*, *hyllätä*, *händä*, *härgä*, *ilda*, *jalga*, *jälgi*, *juoldoa*, *kanda*, *kando*, *kandua* / *kandaa*, *kannella*, *kieldiä*, *kieländy*, *kirgua*, *keännellä*, *kierdiä*, *kohendua*, *korbi*, *kuldu*, *kulgie*, *kumarduo*, *kurgi*, *kuunnelta* / *kuunelta*, *kylbie*, *kylgi*, *kärgi*, *lambi*, *lammaš* / *lammas*, *langa*, *lembi*, *lembo*, *längi*, *merda*, *murdo*, *nylgie*, *nälgä*, *nällästyö*, *olgi*, *panna*, *parda* / *pardu*, *parembi*, *parzi*, *peldo*, *pirda*, *purgua*, *purra*, *puzerdua*, *ramba* / *rambu*, *randa* / *randu*, *siirdiä*, *sordua*, *suurembi*, *sylgi*, *šalba*, *šalvata*, *šarga*, *šilda*, *tarveh* / *tarbeh*, *tundie*, *turba*, *turveh*, *valda*, *varbu*, *velga* / *velgu*, *verdu*, *viheldiä*, *vierdiä*, *viildiä*, *virbi*, *virži*.

Table 26. Qualitative gradation of plosives after voiceless consonants in Karelian dialects

	GenV 168–169	GenS 212–213	Rjag 49–50	Palm 21–23	Bel 26–29	Manž 10	GenA 127	RjagL 95–96	AnisF 95–96
tk : t	*matka : matašša* *kätküö- : kätüt*	*pitkä : pitäs* *matkoan : matata*	*itkie : itin* *pitkä : pitän*	*katkoan : katata* *pitkä : pitän*	*itkie : iten* *šotkie : šoten*	*jatko : jaton* *itku : itun*			
tk : tk							*pitkü : pitkän*	*kütkie : kütken*	*kotku : kotkat* *pitky : pitkät*
hk : h	*reähkä : reähät* *riehki : riehin*		*pühkie :* *püühimmä*	*röähkä : röähät* *puhkiew :* *puheta*		*puhkei : puheta*			
hk : hk	*pihka : pihkalla* *nahka : nahkan*	*nahka : nahkas*	*pahka : pahkat* *pihka : pihkat*	*nahka :* *nahkatta* *tähkä : tähkäššä*	*nahka : nahkat* *tahko : tahkolla*		*ähkätä* *viehku : viehkan*	*nahku : nahkan*	*lahko : lahkot* *tuhku : tuhkas*
Sk : SS	Pdn: *keski : kessessä*	*leski : lesset* *niška : niššas*	*laški : laššin* *kiskua : kissoin*	*rieška : rieššan* *niska : nissašta*	*niška : niššalla* *kiskuo : kisson*	*laškie : laššen* *leski : lessen*			
Sk : S/Z	*laiska : laisistele- /* *laizistele* Pdn: *rieška : riešat*		*kaški : kažen* *leški : ležen*		*ruoška : ruošan* *laiska : laisalla*	*ruoška : ruošan*			
Sk : Sk		*niška : niškas*					*üskü : üskän* *lašku : laškan*	*riesku : rieskan* *iškie : išken*	*koski : kosket* *iškie : išken*
ht : h	*tähti : tähen* *šolahta- : šolahan*	*pyöhtimet :* *pyöhin*	*kehtua- :* *en kehan* *mahtua : mahan*	*ahtoa : ahan* *kahte- : kahen*	*lehti : lehet* *ahtahat : ahaš*	*lehti : lehen* *tähti : tähen*			
ht : ht							*ruohti - : ei* *ruohti*	*tahtahan :* *tahtas* *ahtahan : ahtas*	*ahtahat : ahtas* *ehty : ehtäl*
St : SS	*laštu : laššut*	*kesteä : kessän* *lastu : lassut*	*mušta : muššalla* *muistua :* *muissan*	*mušta : muššan* *istuo : issun*	*laštu : laššulla* *istuo : issun*	*laštu : laššun* *istuo : issun*			
St : S					*puwsta : puwsan*				

St : St					*mesta : mestan*		*mustu : mustat* *viesti : viestin*	*istuo : istun*	*lastu : lastut* *ištuo : ištun*

Lexemes: *ahaš* / *ahtas*, *ahtoa*, *ehty*, *istuo* / *ištuo*, *iškie*, *itkie*, *itku*, *jatko*, *kakši*, *kaški*, *katata*, *kehata*, *keski*, *kesteä*, *kiskuo* / *kiskua*, *koski*, *kotku*, *kytkie*, *kätyt*, *lahko*, *laiska* / *lašku*, *laškie*, *laštu* / *lastu*, *lehti*, *leski* / *leški*, *mahtua*, *matata*, *matka*, *mesta*, *muistua*, *mušta* / *mustu*, *nahka* / *nahku*, *niška* / *niska*, *pahka*, *pihka*, *pitkä* / *pitky*, *puheta*, *puusta*, *pyhkie*, *pyöhin*, *reähkä* / *röähkä*, *riehkie*, *rieška* / *riesku*, *ruohtie*, *ruoška*, *šolahtoa*, *šotkie*, *tahko*, *tahtas*, *tuhku*, *tähkä*, *tähti*, *viehku*, *viesti*, *ysky*, *ähkätä*.

Table 27. Qualitative gradation in standard varieties of Karelian

		Bubr 16–19	Aht 23–27	Anis 36–37	ZaiK 33–34 / ZaiV 51–53	Mark 23 / Pyöl 19
between vowels	**g / k : Ø**	*jagua : juan*	*jagav : joan* *liga : lian*		*laki : luassa* *jakuan : juan*	*lagi : lait* *jagua : juan*
	g / k : j	*igä : ijät* *aiga : aijalla*	*aiga : ajjan* *poiga : pojjan*	*igä : ijät* *mägi : mäjet*	*käki : käjet* *kaiku : kaijun*	*aigu : aijat* *liigu : liijat*
	g / k : v	*kego : kevossa* *haugi : hauvilla*	*lugu : luvun* *haugi : havvin*	*jogi : jovet* *lugie : luvet*	*joki : jovešša* *lukou : luven*	*sugu : suvut* *lugie : luven*
	g : g		*roaga : roagat*	*kniiga : kniigat*		
	d / t : Ø	*pada : puat* *ruadua : ruan*	*sada : soan* *vedeä : veän*	*pada : puat* *sada : suat*	*hätä : hiäššä* *kuatua : kuan*	*sada : suat* *kuadua : kuan*
	d / t : j	*vedeh : vejessä* *maido : maijossa*	*aida : ajjan* *peideä : pejjän*	*kodi : kojit* *paida : paijat*	*paita : paijat* *vetyä : vejän*	*aidu : aijat* *luadie : luajin*
	d / t : v	*redu : revussa* *lauda : lauvalla*	*mado : mavon* *lauda : lavvan*	*rauda : rauvat* *redu : revut*	*lauta : lauvalla* *šoutua : šouvan*	*ruado : ruavot* *soudua : sovvan*
	d : d		*sadu : sadun*	*sadu : sadus*		
	b / p : v	*rebo : revot* *siibi : siivet*	*soba : sovan*	*rebo : revot* *huaba : huavat*	*huapa : huavat*	*huba : huvat*
	b : b		*viba : vibat*	*boba : bobat*		
after sonorant	**lg : ll**	*sylgi : syllellä*	*velga : vellan* *nälgä : nällän*	*halgo : hallot* *selgä : sellät*		*velgu : vellat* *kulgie : kullen*
	lk : l				*jalka : jalat* *kulkie : kulen*	
	rg : rr	*kurgi : kurret*	*kurgi : kurret* *virguon : virrota*	*särgi : särrit* *pergua : perrat*		*kurgi : kurret* *pergua : perran*
	rk : r				*kurki : kuret* *pyrkie : pyrin*	
	ng : ng / nk : nk	*honga : hongat*			*kenkä : kenkät* *honka : honkašša*	
	ld / lt : ll	*peldo : pellot*	*silda : sillan*	*kulda : kullat* *peldo : pellot*	*ilta : illalla* *viiltyä : viillän*	*sildu : sillat* *ildu : illat*
	ld : ld		KrL: *viheldä- : viheldän*			
	rd / rt : rr	*parda : parrat*	*virda : virran*	*virda : virrat* *parda : parrat*	*virta : virrašša* *šiirtyä : šiirrän*	*pardu : parrat* *sordua : sorran*

	rd : rd		KrL: *kumarduo : kumardun*			
	nd / nt : nn	*randa : rannat*	*kondu : konnun*	*hinda : hinnat* *kyndiä : kynnät*	*ranta : rannalla* *antua : annan*	*kando : kannot* *händü : hännät*
	nd : nd		KrL: *izändä : izändät*			
	mb / mp: mm	*ambuu : ammun*	*ramba : ramman*	*ambuo : ammun* *lambi : lammit*	*hampahat : hammaš* *ampuo : ammun*	*lambi : lammet* *ambuo : ammun*
	mb : mb		KrL: *enämbä-: enämbän*			
	Cb / Cp: CV	*korbi : korvet*	*salboan : salvata*		*kylpie : kylven*	*korbi : korvet*
after voiceless consonant	**tk : t**		KrP: *matka : matašša* *kätkyöt : kätyt*		*matka : matassa* *kitköy : kiten*	
	tk : tk	*pitkä : pitkät* *itköy : itkemmä*		*pitkä : pitkät*		
	hk : h		KrP: *reähkä : reähät* *rahkehet : rahis*		*nahka : nahat* *pyyhkie : pyyhin*	
	hk : hk	*nahka : nahkat* *tahkuou : tahkottu*	*tähkä : tähkät* *tuhka : tuhkat*	*nahka : nahkat*	*pihka : pihkat* *ahku : ahkut*	
	Sk : S		KrP: *raiska : raisan* *laškie : lašetan*		*laiska : laisat* *koški : košella*	
	Sk : Sk	*keski : keskessä* *isköy : iskemmä*			*kiiski : kiisket* *läški : läškellä*	
	ht : h		KrP: *šolahta- : šolahan*		*tahtahašša : tahas* *mahtau : mahan*	
	ht : ht	*lehti : lehtet* *tahtou : tahtomma*		*tahtou : tahtot*		
	št : šš		KrP: *laštu : laššut*		*košto : koššot* *opaštuo : opaššun*	
	st : st	*lastu : lastut* *istuu : istun*		*astuo : astut*		

Lexemes: *ahku*, *aida* / *aidu*, *aiga* / *aigu*, *ambuo* / *ampuo*, *antua*, *astuo*, *boba*, *enämbi*, *halgo*, *hammas*, *haugi*, *hinda*, *honga* / *honka*, *huaba* / *huapa*, *huba*, *händy*, *hätä*, *igä*, *ilta* / *ildu*, *iskie*, *istuo*, *izändä*, *itkie*, *jagua* / *jagoa*, *jalka*, *jogi* / *jogi*, *kaiku*, *kando*, *kego*, *kenkä*, *keski*, *kiiski*, *kitkie*, *kniiga*, *kodi*, *kondu*, *korbi*, *koški*, *košto*, *kuadua* / *kuatua*, *kulda*, *kulgie* / *kulkie*, *kumarduo*, *kurgi* / *kurki*, *kylpie*, *kyndiä*, *käki*, *kätyt*, *lagi* / *laki*, *laiska*, *lambi*, *laškie*, *laštu* / *lastu*, *lauda* / *lauta*, *lehti*, *liga*, *liigu*, *luadie*, *lugie* / *lukie*, *lugu*, *läški*, *mado*, *mahtua*, *maido*, *matka*, *mägi*, *nahka*, *nälgä*, *opaštuo*, *pada*, *paida* / *paita*, *parda* / *pardu*, *peideä*, *peldo*, *pergua*, *pihka*, *pitkä*, *poiga*, *pyrkie*, *pyyhkie*, *rahis*, *raiska*, *ramba*, *randa* / *ranta*, *rauda*, *rebo*, *redu*, *reähkä*, *roaga*, *ruado*, *ruadua*, *sada*, *sadu*, *salvata*, *selgä*, *siibi*, *siirtyä*, *silda* / *sildu*, *soba*, *sordua*, *soudua* / *soutua*, *sugu*, *sylgi*, *särgi*, *šolahtua*, *tahas*, *tahkota*, *tahtuo*, *tähkä*, *tuhka*, *vedeä* / *vetyä*, *velga* / *velgu*, *vezi*, *viba*, *viheldiä*, *viiltyä*, *virda* / *virta*, *virrota*.

Phonology: Syllable and word structure

Table 28. Syllable and word structure

possible syllable structures	monosyllabic word	disyllabic / polysyllabic word		
		1st syllable	2nd and later syllables	final syllable
vowel-initial syllables				
short *open syllables*				
V	***a***	***o****-ma*		
long				
open syllables				
VV	***yö***	***iä****-ni*		
closed syllables				
VC	***on***	***ol****-la*		
VVC	***uin***	***ait****-ta* / *ait-tu* / *ait-te*		
consonant-initial syllables				
short *open syllables*				
CV	***ka***	***lu****-mi*	*pei-**ga**-lo* / *pei-**ka**-lo*	*ky-**ly***
CCV	***što***	***pri****-miet-ta* / ***pri****-miet-tu*		
CCCV		***ptru****-ko* / ***tpru****-koi*		
long				
open syllables				
CVV	***myö***	***koi****-vu*	*har-**mua**-da* / *har-**mua**-ta* / *har-**mai**-du*	*hui-**gie*** / *hui-**kie*** / *hui-**gei***
CVVV	***juou***			*ru-**bieu*** / *ru-**pieu***
CCVV		***stuu****-la* / ***stuu****-lu*		
CCCVV		***sprua****-vie*		
closed syllables				
CVC	***ken***	***pel****-do*	*o-**tet**-tih*	*her-**neh***
CVVC	***löin***	***hoik****-ka* / ***hoik****-ku* / ***hoik****-ke*	*ru-**biet**-ta* / *ru-**biet**-to* / *ru-**biet**-te*	*koi-vu-**loih***
CVVVC	Ld: ***tuoit***	Ld: ***tuoit****-te*	Ld: *kan-**duois**-sah*	Ld: *kan-**duois***
CVCC		***hurš****-ti* / ***hurs****-ti*		

CCVC		***pros****-tie* / ***pros****-ti-da*		
CCVVC		***prua|z/s****-niek-ka* / ***pruaz****-niek-ku* / ***pruaz****-*		
CCCVC		***skrip****-ka* / ***skrip****-ku*		
CCCVVC		***striäp****-pie*		

Lexemes: *a*, *aitta* / *aittu* / *aitte*, *harmua* / *harmai*, *herneh*, *hoikka* / *hoikku* / *hoikke*, *huigie* / *huikie* / *huigei*, *huršti* / *hursti*, *iäni*, *juuva* / *juoda*, *ka*, *kando*, *ken*, *koivu*, *kyly*, *lumi*, *lyyvä* / *lyödä*, *myyvä* / *myödä*, *olla* / *olda*, *oma*, *ottua* / *ottoa* / *ottada*, *peigalo* / *peikalo*, *peldo*, *primietta* / *primiettu*, *prostie* / *prostida*, *pruaz/sniekka* / *pruazniekku* / *pruazniekke*, *ptruko* / *tprukoi*, *ruveta* / *rubeda*, *skripka* / *skripku*, *spruavie*, *striäppie*, *stuula* / *stuulu*, *što*, *tuoda*, *uija* / *uida*, *yö*.

Morphology: Nominal declension

Table 29. Nominal stem types in Karelian dialects

	vowel stem	GenV 194–199	GenS 233–235	Rjag 65–81	Bel 55–65	Manž 25–38	GenA 151–155	RjagL 205–213	AnisG 30–97	Virt 17–63	Bar 58–113
single-stem nominals	**O-**	*vedo* *vevon* *vedoh* *vedu|a/o*		*šordo* *šorron* *šordoh* *šordua*	*poro* *poron* *poroh* *poruo*	*loukko* *loukon* *loukkoh* *loukkuo*	*kando* *kannon* *kandoh* *kanduo*		*airo* *airon* *airoh* *airuo*	*kando* *kandon* *kandoi* *kandoD*	*airo* *airon* *airoh* *airot*
	U-		*paivu* *paivun* *paivuh* *paivuo*	*külü* *külün* *külüh* *külüä*	*koivu* *koivun* *koivuh* *koivuo*	*redu* *revun* *reduh* *reduo*	*annettu* *annetun* *annettuh* *annettuu*	*tukku* *tukun* *tukkuh* *tukkuu*	*kudu* *kuvun* *kuduh* *kuduu*	*otettu* *otetun* *otettui* *otettuD*	*koivu* *koivun* *koivuh* *koivut*
	Oi-		*lottö / löttöi / lötöi* *lötöin* *löttöih*				*taloi* *taloin* *taloih* *taloi(du)*		*kägöi* *kägöin* *kägöih* *kägöidy*	*rebuoi* *rebuoin* *rebuoihe* *rebuoiD*	*dänüöi* *dänüöin* *dänüöih* *dänüöit*
	i-		*päčči* *päčin* *päččih* *päččie*	*kazi* *kazin* *kazih* *kazie*	*kodi* *kojin* *kodih* *kodie*		*kodi* *koin* *kodih* *kodii / kodiidu*	*särgi* *särrin* *särgih* *särgii*	*päčči* *päčin* *päččih* *päččii*	*kodi* *kodin* *kodii* *kodiD*	*kaži* *kažin* *kažih* *kažit*
	e-	*tähti* *tähen* *tähtih* *tähti|ä/e*	*kylgi* *kyllen* *kylgeh* *kylgie*	*šarvi* *šarven* *šarveh* *šarvie*	*kivi* *kiven* *kiveh* *kivie*	*jogi* *joven* *jogeh* *jogie*	*argi* *arren* *argeh* *argie(du)*		*kivi* *kiven* *kiveh* *kivie*	*arG* *argen* *argei* *argeD*	*veičči* *veičen* *veiččeh* *veiččet*
	A-	*pada* *poan* *padah* *padoa*	*nahka* *nahkan* *nahkah* *nahkoa*	*lahna* *lahnan* *lahnah* *laahnua*	*kala* *kalan* *kalah* *kalua*	*kala* *kalan* *kalah* *kalja*	*harakku* *harakan* *harakkah* *harakkoa(du)*	*kana* *kanan* *kanah* *kanua*	*kana* *kanan* *kanah* *kanua*	*piiraG* *piiragan* *piiragai* *piiragaD*	*kala* *kalan* *kalah* *kalat*
		reähkä *reähän* *reähkäh* *reähkeä*	*pitkä*	*rokka* *rokan* *rokkah* *rokkua*	*ruga* *ruvan* *rugah* *rugua*	*šorža* *šoržan* *šoržah* *šoržja*	*selgü* *sellän* *selgäh* *selgeä(dü)*	*hüvä* *hüvän* *hüväh* *hüvie*	*hukku* *hukan* *hukkah* *hukkua*	*šelg* *šelgän* *šelgäi* *šelgäD*	*korve* *korvan* *korvah* *korvat*
	VV-	*moa* *moan*	*moa* *moan*	*šuu* *šuun*	*mua* *muan*	*mi̯a* *mi̯an*	*peä* *peän*		*piä* *piän*	*mua* *muan*	*mua* *muan*

		moaha / moah *moada*	*moah* *moada*	*šuuh* *šuuda*	*muah* *muada*	*mi̯ah* *mi̯ada*	*peäh* *peädü*		*piädy* *piädy*	*muahe / muaha* *muaD*	*muah* *muat*
		kebiä / kebie *kebiän / kebien* *kebiäh / kebieh* *kebieä / kebiedä*	*hobie* *hobien* *hobieh* *hobieda*	*hiemua* *hiemuan* *hiemuah* *hiemuada*	*harmua* *harmuan* *harmuah* *harmuada*	*korgie* *korgien* *korgieh* *korgieda*	*oigei / oigie* *oigien* *oigieh* *oigiedu*		*pimei* *pimien* *pimieh* *pimiedy*	*oigeD* *oigedan* *oigedai* *oigedaD*	*korgei* *korgedan* *korgeidah* *korgeidat*
two-stem nominals	**e-**	*käzi* *keän* *kädeh* *kättä*		*käzi* *kiän* *kädeh* *kättä*	*mezi* *mejen* *medeh* *mettä*		*vezi* *vien* *vedeh* *vettü*	*käzi* *käin* *kädeh* *kättü*	*käzi* *käin* *kädeh* *kätty*	*veži* *veden* *vedei* *vet*	*käzi* *käden* *kädeh* *kätte*
		lakši *lahen* *lahteh* *lahta*			*yksi* *yhen* *yhteh* *yhtä*	*yksi* *yhen* *yhteh* *yhtä*		*kaksi* *kahen* *kahteh / kaheh* *kahtu*	*yksi* *yhten* *yhteh* *yhty*		*üksi* *ühten* *ühteh* *ühte*
		lumi *lumen* *lumeh* *lunda*			*lumi* *lumen* *lumeh* *lunda*	*lumi* *lumen* *lumeh* *lunda*		*lumi* *lumen* *lumeh* *lundu*	*lumi* *lumen* *lumeh* *lundu*		*lumi* *lumen* *lumeh* *luntte*
		küpši *küpšen* *küpšeh* *küštä*			*šyli* *šylen* *šyleh* *šyldä*			*kieli* *kielen* *kieleh* *kieldü*	*riihi* *riihen* *riiheh* *riihty*		*hiili* *hiilen* *hiileh* *hiiltte*
		liüheh *liühtehen* *liühteheže* *liühehtä*		*šammal* *šammalen* *šammaleh* *šammalda*	*paimen* *paimenen* *paimeneh* *paimenda*	*šammal* *šammalen* *šammaleh* *šammalda*	*majeh* *madehen* *madehe|ze/z/s/h* *majehtu*	*sammal* *sammalen* *sammaleh* *sammaldu*	*veneh* *venehen* *veneheh* *venehty*	*madeh* *madehen* *madehei* *madeht*	*sammal* *sammalen* *sammaleh* *sammaltte*
	me-	*loin* *loimen* *loimeh* *loinda*				*härkin* *härkimen* *härkimeh* *härkindä*	*süväin* *südämen* *südämeh* *süvändü*	*jalguin* *jalguimen* *jalguimeh* *jalguindu*	*avain* *avaimen* *avaimeh* *avaindu*	*šüdäm* *šüdämen* *šüdämei* *šüdämt*	*avadin* *avadimen* *avadimeh* *avadinte*
	Ze-	*toine / toini* *toizen* *toizeh* *toista*		*naine* *naizen* *naizeh* *naista*	*naine* *naizen* *naizeh* *naista*		*kuldaine* *kuldaizen* *kuldaizeh* *kullastu*	*palane* *palazen* *palazeh* *palastu*	*alaine* *alažen* *alažeh* *alaštu*	*kuɴdaine* *kuɴdaižen* *kuɴdaižei* *kuɴdašt*	*kaidaine* *kaidaižen* *kaidaižeh* *kaidašte*

Table 29 continued

vowel stem	GenV 194–199	GenS 233–235	Rjag 65–81	Bel 55–65	Manž 25–38	GenA 151–155	RjagL 205–213	AnisG 30–97	Virt 17–63	Bar 58–113
ehe-	*šieš / sies* *šegehen* *šegehe|h/že* *šieštä / siestä*	*kallis* *kallehen* *kalleheh* *kallista*	*nagris* *nagrehen* *nagreheh* *nagrista*	*kirveš* *kirvehen* *kirveheh* *kirveštä*	*kirves'* *kirvehen* *kirveheh* *kirves't'ä*	*lahkis* *lahkehen* *lahkehe|ze/z/s/h* *lahkistu*	*kirves* *kirvehen* *kirveheh* *kirvestü*	*kirves* *kirvehen* *kirveheh* *kirvesty*	*rugiŽ* *rugehen* *rugehei* *rugišt*	*kirves* *kirvehen* *kirveheh* *kirveste*
kSe-	*pissoš* *pissokšen* *pissokšeh* *pissošta*	*välites* *väliteksen* *välitekseh* *välitestä*	*katoš* *katokšen* *katokšeh* *katošta*	*vereš* *verekšen* *verekšeh* *vereštä*	*halletuš* *halletukšen* *halletukšeh* *halletušta*		*veres* *vereksen* *verekseh* *verestü*	*kaglus* *kagluksen* *kaglukseh* *kaglustu*		*kaglus* *kagluksen* *kaglukseh* *kagluste*
AhA-	*šuaš / šuvaš* *šugahan* *šugaha|h/že* *šuašta / šuvašta*		*kablaš* *kablahan* *kablahah* *kablašta*		*lammaš* *lambahan* *lambahah* *lammašta*	*mätäs* *mättähän* *mättäheze* *mätästü*	*lammas* *lambahan* *lambahah* *lammastu*	*ozakas* *ozakkahan* *ozakkahah* *ozakastu*	*mätäZ* *mättähän* *mättähäi* *mätäst*	*armas* *armahan* *armahah* *armaste*
ie- / ege-	*kašše* *kaštien* *kaštieh* *kaššetta*	*roaje* *roadien* *roadieh* *roajetta*	*vuate* *vuattien* *vuattieh* *vuatetta*	*kašše* *kaštien* *kaštieh* *kaštieda / kaššetta*		*paize* *paizien* *paizieh* *paizettu*	*kaste* *kastien* *kastieh* *kastettu*	*päre* *pärien* *pärieh* *päretty*	*kaste* *kastegen* *kastegei* *kastett*	*päre* *päregen* *päregeh* *pärette*
UO- / Ude-	*kätüt* *kätküön* *kätküöh* *kätüttä*		*voihut* *voihuon* *voihuoh* *voihutta*	*kätyt* *kätkyön* *kätkyöh* *kätyttä*	*olut* *oluon* *oluoh* *olutta*	*kätküt* *kätküön* *kätküöh* *kätküttü*	*lapsut* *lapsuon* *lapsuoh* *lapsuttu*	*yöhyt* *yöhyön* *yöhyöh* *yöhytty*	*kätküD* *kätküden* *kätküdei* *kätkütt*	*piähüt* *piähüden* *piähüdeh* *piähütte*
	tervehüs *tervehüön* *tervehüöh* *tervehüttä*		*piduhuš* *piduhuon* *piduhuoh* *piduhutta*							*hüvüs* *hüvüden* *hüvüdeh* *hüvütte*
ttOmA-	*huoletoin* *huolettoman* *huolettomah* *huoletoinda*							*käitöi* *käittömän* *käittömäh* *käittömiä*		*luutoi* *luuttoman* *luuttomah* *luutontte*

Lexemes: *airo*, *alaine*, *annettu*, *argi* / *arg*, *armas*, *avain* / *avadin*, *ďänyöi*, *halletuš*, *harakku*, *harmua*, *hiemua*, *hiili*, *hobie*, *hukku*, *huoletoin*, *hyvys*, *hyvä*, *härkin*, *jalguin*, *jogi*, *kablaš*, *kaglus*, *kaidaine*, *kaksi*, *kala*, *kallis*, *kana*, *kando*, *kašše* / *kaste*, *kazi* / *kaži*, *katoš*, *kebiä* / *kebie*, *kieli*, *kirveš* / *kirves*, *kivi*, *kodi*, *koivu*, *korgie* / *korgei*, *korve*, *kudu*, *kuldaine*, *kylgi*, *kyly*, *kypši*, *kägöi*, *käitöi*, *käzi*, *kätyt* / *kätkyt*, *lahkis*, *lahna*, *lakši*, *lammaš* / *lammas*, *lapsut*, *liyheh*, *loin*, *loukko*, *löttö* / *löttöi* / *lötöi*, *lumi*, *luutuoi*, *majeh* / *madeh*, *mezi*, *mua* / *moa* / *mi̯a*, *mätäs*, *nagris*, *nahka*, *naine*, *oigei* / *oigie* / *oiged*, *olut*, *ozakas*, *otettu*, *pada*, *paimen*, *paize*, *paivu*, *palane*, *piduhuš*, *piiraG*, *pimei*, *pissoš*, *pitkä*, *piä* / *peä*, *piähyt*, *poro*, *päčči*, *päre*, *rebuoi*, *redu*, *reähkä*, *riihi*, *roaje*, *rokka*, *ruga*, *rugiz*, *selgy* / *šelg*, *syväin* / *šydäm*, *särgi*, *šammal* / *sammal*, *šarvi*, *šieš* / *sies*, *šordo*, *šorža*, *šuaš* / *šuvaš*, *šuu*, *šyli*, *taloi*, *tervehyš*, *toine* / *toini*, *tukku*, *tähti*, *vedo*, *veičči*, *veneh*, *veres* / *vereš*, *vezi* / *veži*, *voihut*, *vuate*, *välites*, *yksi*, *yöhyt*.

Table 30. Nominal stem types in standard varieties of Karelian

	vowel stem	Bubr 42–52	Aht 46–55	Anis 59–69	ZaiK 52–55, 170–174 / ZaiV 60–69	Mark 30–31 / Pyöl 24–25
single-stme nominals	**O-**		*verko* *verkon* *verkoh* *verkuo*	*talo* *talon* *taloh* *taluo*	*pokko* *pokon* *pokkoh* *pokkuo*	*kello* *kellon* *kelloh* *kelluo*
	U-	*sadu* *savun* *saduh* *saduo*	*muru* *murun* *muruh* *muruu*	*vibu* *vivun* *vibuh* *vibuo*	*huttu* *hutun* *huttuh* *huttuo*	*vilu* *vilun* *viluh* *viluu*
	oi-		*mečoi* *mečoin* *meččoih* *meččoi*			*reboi* *reboin* *reboih* *reboidu*
	i-		*lambi* *lammin* *lambih* *lambii*	*perti* *pertin* *pertih* *pertie*	*värčči* *värčin* *värččih* *värččie*	*kukki* *kukin* *kukkih* *kukkii*
	e-	*siibi* *siiven* *siibeh* *siibie*	*korbi* *korven* *korbeh* *korbie*	*kurgi* *kurren* *kurgeh* *kurgie*	*lehti* *lehen* *lehteh* *lehtie*	*lehti* *lehten* *lehteh* *lehtie*
	A-	*randa* *rannan* *randah* *randua*	*randa* *rannan* *randah* *randoa*	*parda* *parran* *pardah* *pardua*	*niekla* *nieklan* *nieklah* *nieklua*	*vaza* *vazan* *vazah* *vazua*
		nuotta *nuotan* *nuottah* *nuottua*	*selgä* *sellän* *selgäh* *selgeä*	*kuokka* *kuokan* *kuokkah* *kuokkua*	*liävä* *liävän* *liäväh* *liävyä*	*opastai* *opastajan* *opastajah* *opastajua*
	VV-	*mua* *muan* *muah* *muada*	*moa* *moan* *moah* *moada*	*mua* *muan* *muah* *muada*	*mua* *muan* *muah* *muata*	*mua* *muan* *muah* *muadu*

		kiugua *kiuguan* *kiuguah* *kiuguada*	*oigei* *oigien* *oigieh* *oigie(da)*		*jykie* *jykien* *jykieh* *jykietä*	*pehmei* *pehmien* *pehmieh* *pehmiedü*
two-stem nominals	**e-**	*vezi* *vejen* *vedeh* *vettä*	*vezi* *vien* *vedeh* *vettä*	*vezi* *vejen* *vedeh* *vettä*	*vesi* *vejen* *veteh* *vettä*	*vuozi* *vuvven* *vuodeh* *vuottu*
			yksi *yhten* *yhteh* *yhtä*			*üksi* *ühten* *ühteh* *ühtü*
			lumi *lumen* *lumeh* *lunda*	*lumi* *lumen* *lumeh* *lunda*	*lumi* *lumen* *lumeh* *lunta*	*lumi* *lumen* *lumeh* *lundu*
			tuli *tulen* *tuleh* *tulda*	*tuli* *tulen* *tuleh* *tulda*	*nuori* *nuoren* *nuoreh* *nuotta*	*mieli* *mielen* *mieleh* *mieldü*
		tytär *tyttären* *tyttäreh* *tytärdä*	*veneh* *venehen* *veneheh* *venehtä*	*veneh* *venehen* *veneheh* *venehtä*	*pereh* *perehen* *pereheh* *perehtä*	*pereh* *perehen* *pereheh* *perehtü*
	me-		*syväin* *sydämen* *sydämeh* *syväindä*		*avuan* *avuamen* *avuameh* *avuanta*	*avain* *avaimen* *avaimeh* *avaindu*
	ze- / se-	*kuldane* *kuldazen* *kuldazeh* *kullasta*	*moine* *moizen* *moizeh* *moista*	*kärbäine* *kärbäizen* *kärbäizeh* *kärbäistä*	*keroni* *kerosen* *keroseh* *keroista*	*kuldaine* *kuldazen* *kuldazeh* *kuldastu*
	ehe-	*valmis* *valmehen* *valmeheh*	*huovis* *huogehen* *huogeheh*	*mies* *miehen* *mieheh*	*kaunis* *kaunehen* *kauneheh*	

Table 30 continued

vowel stem	Bubr 42–52	Aht 46–55	Anis 59–69	ZaiK 52–55, 170–174 / ZaiV 60–69	Mark 30–31 / Pyöl 24–25
	valmista	*huovista*	*miestä*	*kaunista*	
kSe-		*tunnus* *tunnuksen* *tunnukseh* *tunnusta*		*kakluš* *kaklukšen* *kaklukšeh* *kaklušta*	*külvös* *külvöksen* *külvökseh* *külvöstü*
AhA-		*armas* *armahan* *armahah* *armasta*	*hammas* *hambahan* *hambahah* *hammasta*	*antilaš* *antilahan* *antilahah* *antilašta*	*armas* *armahan* *armahah* *armastu*
ie-	*voije* *voidien* *voidieh* *voijetta*	*kate* *kattien* *kattieh* *katetta*		*vuate* *vuattien* *vuattieh* *vuatetta*	*kate* *kattien* *kattieh* *katettu*
UO-	*siivyt* *siibyön* *siibyöh* *siivyttä*	*kätkyt* *kätkyön* *kätkyöh* *kätkyttä*		*lyhyt* *lyhyön* *lyhyöh* *lyhyttä*	*lapsut* *lapsuon* *lapsuoh* *lapsuttu*
	uuvus *uuduon* *uuduoh* *uuvutta*	*hyvys* *hyvyön* *hyvyöh* *hyvyttä*		*puhtahuš* *puhtahuon /* *puhtahuven* *puhtahuteh* *puhtahutta*	*puhtahus* *puhtahuon* *puhtahuttu*
ttOmA-	*jallatoin* *jallattoman* *jallattomah* *jallatoinda*	*ozatoi* *ozattoman* *ozattomah* *ozatoinda /* *ozattomoa*		*nimetöin* *nimettömän* *nimettömäh* *nimetöintä*	(single-stem) *hiemaitoi* *hiemaittoman* *hiemaittomah* *hiemaittomua*

Lexemes: *antilaš*, *armas*, *avuan* / *avain*, *hammas*, *hiemaitoi*, *huovis*, *huttu*, *hyvys*, *jallatoin*, *jykie*, *kaklus*, *kate*, *kaunis*, *kello*, *keroni*, *kiugua*, *korbi*, *kukki*, *kuldane* / *kuldaine*, *kuokka*, *kurgi*, *kylvös*, *kärbäine*, *kätkyt*, *lambi*, *lapsut*, *lehti*, *liävä*, *lumi*, *lyhyt*, *mečoi*, *mieli*, *mies*, *moine*, *mua* / *moa*, *niekla*, *nuori*, *nuotta*, *muru*, *nimetöin*, *oigei*, *opastai*, *ozatoi*, *parda*, *pehmei*, *pereh*, *perti*, *pokko*, *puhtahus*, *randa*, *reboi*, *sadu*, *selgä*, *siibi* / *siivyt*, *syväin*, *talo*, *tuli*, *tunnus*, *tytär*, *uuvus*, *valmis*, *vaza*, *veneh*, *verko*, *vezi* / *vesi*, *vibu*, *vilu*, *voije*, *vuate*, *vuozi*, *värčči*, *yksi*.

Table 31. Nominal plurals in Karelian dialects

	vowel stem	GenV 194–199	GenS 233–235	Rjag 65–81	Bel 55–65	Manž 25–38	GenA 151–155	RjagL 205–213	AnisG 30–97	Virt 17–63	Bar 58–113
single-stem nominals	**O-**	*vevo**t*** *vedo**loj**en* *vedo**loi**h* *vedo**loj**a*		*šorro**t*** *šordo**loi**n* *šordo**loi**h* *šordo**loi**(da)*	*poro**t*** *poro**loi**n* *poro**loi**h* *poro**loi**da*	*louko**t*** *loukko**loi**n* *loukko**loi**h* *loukko**loi**da*	*kanno**d**/**t*** *kando**loi**n* *kando**loi**h* *kando**loi***		*airo**t*** *airo**loi**n* *airo**loi**h* *airo**loi***	*kando**D*** *kanduo**i**den* *kanduo**i**he* *kanduo**i**D*	
	U-		*paivu**t*** *paivu**loi**n* *paivu**loi**h* *paivu**loi***	*külü**t*** *külü**löi**n* *külü**löi**h* *külü**löi**(dä)*	*koivu**t*** *koivu**loi**n* *koivu**loi**h* *koivu**loi**da*	*revu**t*** *redu**loi**n* *redu**loi**h* *redu**loi**da*	*annetu**|d/t*** *annettu**loi**n* *annettu**loi**h* *annettu**loi***	*tuku**t*** *tukku**loi**n* *tukku**loi**h* *tukku**loi**(du)*	*kuvu**t*** *kudu**loi**n* *kudu**loi**h* *kudu**loi***	*otetu**D*** *otetu**i**den* *otetu**i**he* *otetu**i**d*	*koivu**t*** *koivu**i**den* *koivu**i**h* *koivu**i**t*
	Oi-		*lötöi**t*** *löttö**löi**n* *löttö**löi**h* *löttö**i**(dä) /* *löttö**löi***				*taloi**|d/t*** *talo**loi**n* *talo**loi**h* *talo**loi***		*kägöi**t*** *kägö**löi**n* *kägö**löi**h* *kägö**löi***	*rebuoi**D*** *rebuo**i**den /* *rebo**ɲuoi**den* *rebo**ɲuoi**he* *rebo**ɲuoi**D*	*dänüöi**t*** *dänüö**i**den /* *dänö**lüöi**den* *dänö**i**h / dänö**lüöi**h* *dänö**i**t / dänö**lüöi**t*
	i-		*päči**t*** *päči**löi**n* *päči**löi**h* *päči**löi***	*kazi**t*** *kazi**loi**n* *kazi**loi**h* *kazi**loi***	*koji**t*** *kodi**loi**n* *kodi**loi**h* *kodi**loi**da*		*koi**|d/t*** *kodi**loi**n* *kodi**loi**h* *kodi**loi***	*särri**t*** *särgi**löi**n* *särgi**löi**h* *särgi**löi**(dü)*	*päči**t*** *päčči**löi**n* *päčči**löi**h* *päčči**löi***	*kodi**D*** *kodi**i**den* *kodi**i**he kodi**i**D*	*kaži**t*** *kaži**i**den* *kaži**i**h* *kaži**i**t*
	e-	*tähe**t*** *tähti**löj**en / täht**i**en* *tähti**löi**h / täht**i**h* *tähti**löj**ä / täht**i**e*	*kylle**t*** *kylg**i**en / kylgi**löi**n* *kylg**i**h / kylgi**löi**h* *kylg**i**e / kylgi**löi***	*šarve**t*** *šarvi**loi**n* *šarvi**loi**h* *šarvi**loi**(da)*	*kive**t*** *kivi**löi**n* *kivi**löi**h* *kivi**löi**dä*	*jove**t*** *jogi**loi**n* *jogi**loi**h* *jogi**loi**da*	*arre**|d/t*** *argi**en / argi**loi**n* *argi**h / argi**loi**h* *argi**i / argi**loi***		*kive**t*** *kivi**löi**n* *kivi**löi**h* *kivi**löi***	*arge**D*** *argi**i**den* *argi**i**he* *argi**i**D*	*veičе**t*** *veičč**i**den* *veičč**i**h* *veičč**i**t*
	A-	*poa**t*** *pado**j**en* *pado**i**h* *pado**j**a*	*nahka**t*** *nahko**i**n* *nahko**i**h* *nahko**i***	*lahna**t*** *lahno**i**n* *lahno**i**h* *lahno**i***	*kala**t*** *kalo**i**n* *kalo**i**h* *kalo**i**da*	*kala**t*** *kalo**i**n* *kalo**i**h* *kalo**i**da*	*haraka**|d/t*** *harakko**i**n* *harakko**i**h* *harakko**i**(du)*	*kana**t*** *kano**i**n* *kano**i**h* *kano**i**(du)*	*kana**t*** *kano**i**n* *kano**i**h* *kano**i***	*piiraga**D*** *piiraguo**i**den* *piiraguo**i**he* *piiraguo**i**D*	*kala**t*** *kaluo**i**den* *kaluo**i**h* *kaluo**i**t*
		*reähkä**t*** *reähk**i**en* *reähk**i**h*		*roka**t*** *rokk**i**en* *rokk**i**h*	*ruva**t*** *ruv**i**n* *rug**i**h*	*šoržа**t*** *šoržі**n*** *šoržі**h***	*sellä**|d/t*** *selg**i**en* *selg**i**h*	*hüvä**t*** *hüv**i**en* *hüv**i**h*	*huka**t*** *hukk**i**en* *hukk**i**h*	*šelgä**D*** *šelg**i**den* *šelg**ii**he šelg**i**D*	*korva**t*** *korv**i**den* *korv**i**h*

Table 31 continued

	vowel stem	GenV 194–199	GenS 233–235	Rjag 65–81	Bel 55–65	Manž 25–38	GenA 151–155	RjagL 205–213	AnisG 30–97	Virt 17–63	Bar 58–113
		*reähk|**i**ä/**i**e*		*rokk**i**e*	*rug**i**e*	*šorž**i**e*	*selg|**i**i/**i**e(dü)*	*hüv**i**i*	*hukk**i**i*		*korv**i**t*
	VV-	*moa**t*** *ma**i**jen / moal**o**jen* *ma**i**he/h / moa**lo**ih* *ma**i**da / moa**lo**ja*	*moa**t*** *ma**i**jen / moa**lo**in* *ma**i**h / moa**lo**ih* *ma**i**da / moa**lo**i*	*šuu**t*** *šuu**lo**in* *šuu**lo**ih* *šuu**lo**i(da)*	*mua**t*** *mua**lo**in* *mua**lo**ih* *mua**lo**ida*	*mja**t*** *mja**lo**in* *mja**lo**ih* *mja**lo**ida*	*peä|**d**/**t*** *päjjen / peä**lö**in* *päi**h** / peä**lö**ih* *päidü / peä**lö**i*		*piä**t*** *piä**lö**in* *piä**lö**ih* *piä**lö**i*	*mua**D*** *mua**i**den* *mua**i**he* *mua**i**d*	*mua**t*** *mua**luoi**den* *mua**luoi**h* *mua**luoi**t*
		*keb|iä/ie**t*** *kebe**i**jen* *kebe**i**h* *kebe**i**dä*	*hobie**t*** *hobe**i**n / hobie**loi**n* *hobe**i**h / hobie**loi**h* *hobe**i**da / hobie**loi***	*hiemua**t*** *hiemua**loi**n* *hiemua**loi**h* *hiemua**loi**(da)*	*harmua**t*** *harma**i**n* *harma**i**h* *harma**i**da*	*korgie**t*** *korge**i**n* *korge**i**h* *korge**i**da*	*oigie|**d**/**t*** *oige**i**n / oigie**loi**n* *oige**i**h / oigie**loi**h* *oige**i**du / oigie**loi***		*pimie**t*** *pimie**lö**in* *pimie**lö**ih* *pimie**lö**i*	*oigeda**D*** *oiged**ii**den* *oiged**ii**he* *oiged**ii**D*	*korgeda**t*** *korged**i**den* *korged**i**h* *korged**i**t*
two-stem nominals	**e-**	*keä**t*** *käzi**lö**jen / käz**i**en* *käzi**lö**ih / käz**i**h* *käzi**lö**jä / käz**i**e*		*kiä**t*** *käz**i**en / käzi**lö**in* *käz**i**|h/i / käzi**lö**ih* *käz**i**e / käzi**lö**i*	*meje**t*** *mezi**lö**in* *mezi**lö**ih* *mezi**lö**idä*		*vie|**d**/**t*** *vez**i**en / vezi**lö**in* *vez**i**h / vezi**lö**ih* *vez**i**i(dü) / vezi**lö**i*	*käi**t*** *käz**i**en / käzi**lö**in* *käz**i**h* *käz**i**i / käzi**lö**i*	*käi**t*** *käz**i**en* *käz**i**h* *käz**i**i*	*vede**D*** *veži**d**en* *veži**i**he* *veži**D** / veži**i**D*	*kädet* *käz**i**den* *käz**i**h* *käz**i**t*
		laheт *lakši**lo**jen / lakš**i**en* *lakši**loi**h / lakš**i**h* *lakši**lo**ja / lakš**i**e*			*yhe**t*** *yks**i**n* *yks**i**h* *yks**i**e*			*kahe**t*** *kaks**i**en* *kaks**i**h* *kaks**i**i*			*ühte**t*** *üks**i**den* *üks**i**h* *üks**i**t*
			lumiloin / lumien		*lume**t*** *lumi**loi**n* *lumi**loi**h* *lumi**loi**da*	*lume**t*** *lumi**loi**n* *lumi**loi**h* *lumi**loi**da*		*lume**t*** *lum**i**en* *lum**i**h* *lum**i**i*	*lume**t*** *lum**i**en* *lum**i**h* *lum**i**i*		*lume**t*** *lum**i**den* *lum**i**h* *lum**i**t*
					*šyle**t*** *šyli**lö**in* *šyli**lö**ih* *šyli**lö**idä*			*kiele**t*** *kiel**i**en / kieli**lö**in* *kiel**i**h* *kiel**i**i / kieli**lö**i*	*riihe**t*** *riih**i**en* *riih**i**h* *riih**i**i*		*hiile**t*** *hiili**d**en* *hiili**h*** *hiili**t***
		*liühtehe**t*** *liühteh**i**en* *liühteh**i**|h/ze/že* *liühteh|**i**ä/ie*		*šammale**t*** *šammal**i**en* *šammal**i**|h/i* *šammal**i**e*	*paimene**t*** *paimen**i**n* *paimen**i**h* *paimen**i**e*	*šammale**t*** *šammal**i**n* *šammal**i**h* *šammal**i**e*	*madehe|**d**/**t*** *madeh**i**en* *madeh**i**|ze/z/s/h* *madeh**i**i*	*sammale**t*** *sammal**i**en* *sammal**i**h* *sammal**i**i*	*venehe**t*** *veneh**i**en* *veneh**i**h* *veneh**i**i*	*madehe**D*** *madeh**ii**den* *madeh**ii*** *madeh**ii**D*	*sammale**t*** *sammal**i**den* *sammal**i**h* *sammal**i**t*

two-stem nominals

vowel stem	GenV 194–199	GenS 233–235	Rjag 65–81	Bel 55–65	Manž 25–38	GenA 151–155	RjagL 205–213	AnisG 30–97	Virt 17–63	Bar 58–113
me-					*härkime**t*** *härkimi**n*** *härkimi**h*** *härkimi**e***		*jalguime**t*** *jalguimi**en*** *jalguimi**h*** *jalguimi**i***	*avaime**t*** *avaimi**en*** *avaimi**h*** *avaimi**i***	*šüdäme**D*** *šüdämi**iden*** *šüdämi**ihe*** *šüdämi**iD***	*avadime**t*** *avadimi**den*** *avadimi**h*** *avadimi**t***
Ze-	*toize**t*** *toizi**en*** *toizi**h*** *toiz**|ia/ie***		*naize**t*** *naizi**en*** *naizi**h*** *naizi**e***	*naize**t*** *naizi**n*** *naizi**h*** *naizi**e***		*kuldaize**|d/t*** *kuldaizi**en*** *kuldaizi**h*** *kuldaizi**i**(du)*	*palaze**t*** *palazi**en*** *palazi**h*** *palazi**i***	*alaže**t*** *alaži**en*** *alaži**h*** *alaži**i***	*kuɲdaiže**D*** *kuɲdaiži**/ii**den*** *kuɲdaiži**i*** *kuɲdaiži**iD***	*kaidaiže**t*** *kaidaiži**den*** *kaidaiži**h*** *kaidaiži**t***
ehe-		*kallehe**t*** *kallehi**en*** *kallehi**|s/h*** *kallehi**e***	*nagrehe**t*** *nagrehi**en*** *nagrehi**|h/i*** *nagrehi**e***	*kirvehe**t*** *kirvehi**n*** *kirvehi**h*** *kirvehi**e***	*kirvehe**t*** *kirvehi**n*** *kirvehi**h*** *kirvehi**e***		*kirvehe**t*** *kirvehi**en*** *kirvehi**h*** *kirvehi**i***	*kirvehe**t*** *kirvehi**en*** *kirvehi**h*** *kirvehi**i***	*rugehe**D*** *rugehi**iden*** *rugehi**i**(he)* *rugehi**iD***	*kirvehe**t*** *kirvehi**den*** *kirvehi**h*** *kirvehi**t***
kSe-	*pissokše**t*** *pissokši**en*** *pissokši**h*** *pissokš**|ia/ie***	*välitekse**t*** *välitekši**en*** *välitekši**h*** *välitekši**e***	*katokše**t*** *katokši**en*** *katokši**|h/i*** *katokši**e***	*verekše**t*** *verekši**n*** *verekši**h*** *verekši**e***	*halletukše**t*** *halletukši**n*** *halletukši**h*** *halletukši**e***		*verekše**t*** *verekši**en*** *verekši**h*** *verekši**i***	*kaglukše**t*** *kaglukši**en*** *kaglukši**h*** *kaglukši**i***		*kaglukše**t*** *kaglukši**den*** *kahluksi**h*** *kaglukši**t***
AhA-	*šugaha**t*** *šugahi**en*** *šugahi**|ze/že*** *šugah**|ia/ie***		*kablaha**t*** *kablahi**en*** *kablahi**|h/i*** *kablahi**e***		*lambaha**t*** *lambahi**n*** *lambahi**h*** *lambahi**e***	*mättähä**d*** *mättähi**en*** *mättähi**|ze/z/s/h*** *mättähi**i***	*lambaha**t*** *lambahi**en*** *lambahi**h*** *lambahi**i***	*ozakkaha**t*** *ozakkahi**en*** *ozakkahi**h*** *ozakkahi**i***	*mätähä**D*** *mättähi**iden*** *mättähi**ihe*** *mättähi**iD***	*armaha**t*** *armahi**den*** *armahi**h*** *armahi**t***
ie- / ege-	*kašti**e**t*** *kašte**i**jen*** *kašte**i**h*** *kašte**i**da***	*road**i**en*** *roade**i**h*** *roade**i**da***	*vuatti**e**t*** *vuatti**e**loin*** *vuatti**e**loih*** *vuatti**e**loi***	*kašt**i**et*** *kešte**i**n*** *kašte**i**h*** *kašte**i**da***		*paizi**e**|d/t*** *paize**i**n /* *paizi**e**loin* *paize**i**h /* *paizi**e**loih* *paize**i**du /* *paizi**e**loi***	*kastie**t*** *kastie**loi**n*** *kastie**loi**h*** *kastie**loi**(du)***	*pärie**t*** *pärie**lö**in /* *päre**i**n* *pärie**lö**ih /* *päre**i**h* *pärie**lö**i /* *päre**i**dy***	*kastege**D*** *kastegi**iden*** *kastegi**ihe*** *kastegi**iD***	*päreg**e**t*** *päregi**den*** *päregi**h*** *päregi**t***
UO- / Ude-	*kätküö**t*** *kätküzi**en*** *kätküzi**h***		*voihuo**t*** *voihuo**loi**n*** *voihuo**loi**h***	*kätkyö**t*** *kätkyö**löi**n*** *kätkyö**löi**h***	*oluo**t*** *olu**loi**n*** *olu**loi**h***	*kätküö**|d/t*** *kätküizi**en*** *kätküizi**h***	*lapsuo**t*** *lapsuzi**en*** *lapsuzi**h***	*yöhyö**t*** *yöhyö**löi**n*** *yöhyö**löi**h***	*kätküde**D*** *kätküži**iden*** *kätküži**ihe***	*piähüde**t*** *piähüži**den*** *piähüži**h***

Table 31 continued

	vowel stem	GenV 194–199	GenS 233–235	Rjag 65–81	Bel 55–65	Manž 25–38	GenA 151–155	RjagL 205–213	AnisG 30–97	Virt 17–63	Bar 58–113
two-stem nominals	**UO- / Ude-**	*kätküz|**i**ä/**i**e*		*voihuo**loi**n*	*kätkyö**löi**dä*	*oluz**i**e*	*kätküiz**i**i*	*lapsuz**i**i*	*yöhyö**löi***	*kätküž**ii**D*	*piähüž**i**t*
		*tervehüö**t*** *tervehüz**i**en* *tervehüz**i**h* *tervehüz|**i**ä/**i**e*									*hüvüde**t*** *hüvüž**i**den* *hüvüž**i**h* *hüvüž**i**t*
	ttOmA-	*huolettoma**t*** *huolettom**i**en* *huolettom**i**h* *huolettom|**i**a/**i**e*							*käittömä**t*** *käittöm**i**en* *käittöm**i**h* *käittöm**i**i*		*luuttoma**t*** *luuttom**i**den* *luttom**i**h* *luuttom**i**t*

Lexemes: *see Table 30.*

Table 32. Nominal plurals in standard varieties of Karelian

	vowel stem	Bubr 42–52	Aht 46–55	Anis 59–69	ZaiK 48–55 / ZaiV 71–74	Mark 34–36 / Pyöl 26–29
single-stem nominals	**O-**		*verko**t*** *verko**loi**n* *verko**loi**h* *verko**loi***	*talo**t*** *talo**loi**n* *talo**loi**h* *talo**loi***	*poko**t*** *pokko**j**en* *pokko**loi**h* *pokko**j**a*	*kello**t*** *kello**loi**n* *kello**loi**h* *kello**loi***
	U-	*savu**t*** *sadu**loi**n* / *sadu**loi**jen* *sadu**loi**h* *sadu**loi**ja*	*muru**t*** *muru**loi**t* *muru**loi**h* *muru**loi***	*vivu**t*** *vibu**loi**n* *vibu**loi**h* *vibu**loi***	*vilu**t*** *vilu**j**en* *vilu**loi**h* *vilu**j**a*	*vilu**t*** *vilu**loi**n* *vilu**loi**h* *vilu**loi***

single-stem nominals	**oi-**		*mečoi**t*** *mečč**oloi**n* *mečč**oloi**h* *mečč**oloi***			*rebo**i**t* *rebo**loi**n* *rebo**loi**h* *rebo**loi***
	i-		*lammi**t*** *lambi**loi**n* *lambi**loi**h* *lambi**loi***	*pert**i**t* *perti**löi**n* *perti**löi**h* *perti**löi***	*värči**t*** *värčč**i**en* *värčči**löi**h* *värčči**jä***	*kuki**t*** *kukki**loi**n* *kukki**loi**h* *kukki**loi***
	e-	*siive**t*** *siibi**löi**n / siibi**löj**en* *siibi**löi**h* *siibi**löj**ä*	*korve**t*** *korb**i**en / korbi**loi**n* *korb**i**h / korbi**loi**h* *korb**i**i / korbi**loi***	*kurre**t*** *kurgi**loi**n* *kurgi**loi**h* *kurgi**loi***		
	A-	*rannа**t*** *rannо**i**n / randо**j**en* *randо**i**h* *randо**j**a*	*rannа**t*** *randо**i**n* *randо**i**h* *randо**i***	*parra**t*** *parro**i**n* *pardo**i**h* *pardo**i***	*niekla**t*** *niekl**o**j**e**n* *niekl**o**i**h* *niekl**o**j**a***	*sana**t*** *sano**i**n* *sano**i**h* *sano**i***
		*nuota**t*** *nuot**i**n / nuott**i**en* *nuott**i**h* *nuott**i**e*	*sellä**t*** *selg**i**en* *selg**i**h* *selg**i**i*	*kuoka**t*** *kuokk**i**en* *kuokk**i**h* *kuokk**i**e*	*liävä**t*** *liäv**i**en* *liäv**i**h* *liäv**i**e*	*päivä**t*** *päiv**i**en* *päiv**i**h* *päiv**i**i*
	VV-	*mua**t*** *mua**loi**n / mua**loj**en* *mua**loi**h* *mua**loj**a*	*moa**t*** *maj**j**en* *ma**i**h / moa**loi**h* *ma**i**da / moa**loi***	*mua**t*** *mua**loi**n* *mua**loi**h* *mua**loi***	*mua**t*** *ma**i**jen* *ma**i**h* *ma**i**ta*	*mua**t*** *mua**loi**n* *mua**loi**h* *mua**loi***
		*kiugua**t*** *kiuga**i**n / kiuga**i**jen* *kiuga**i**h* *kiuga**i**da*	*oigie**t*** *oige**i**n / oige**j**ien / oigie**loi**n* *oige**i**h / oige**j**ih / oigie**loi**h* *oige**i**da / oige**j**ii / oigie**loi***		*jykie**t*** *jyke**i**jen* *jyke**i**h* *jyke**i**tä*	

Table 32 continued

	vowel stem	Bubr 42–52	Aht 46–55	Anis 59–69	ZaiK 48–55 / ZaiV 71–74	Mark 34–36 / Pyöl 26–29
two-stem nominals	**e-**	*veje**t*** *vezi**lö**in / vezi**löj**en* *vezi**lö**ih* *vezi**löj**ä*	*vie**t*** *vezi**e**n / vezi**lö**in* *vezi**h** / vezi**lö**ih* *vezi**i** / vezi**lö**i*	*veje**t*** *vezi**e**n* *vezi**h*** *vezi**e***	*veje**t*** *vesi**e**n* *vesi**lö**ih* *vesi**e***	
			*yhte**t*** *yksi**e**n* *yksi**h*** *yksi**i***			
			*lume**t*** *lumi**e**n / lumi**loi**n* *lumi**h** / lumi**loi**h* *lumi**i** / lumi**loi***	*lume**t*** *lumi**e**n* *lumi**h*** *lumi**e***	*lume**t*** *lumi**e**n* *lumi**loi**h* *lumi**e***	*lume**t*** *lumi**e**n* *lumi**h*** *lumi**i***
			*tule**t*** *tuli**e**n / tuli**loi**n* *tuli**h** / tuli**loi**h* *tuli**i** / tuli**loi***	*tule**t*** *tuli**e**n* *tuli**h*** *tuli**e***	*nuore**t*** *nuori**e**n* *nuori**h*** *nuori**e***	*miele**t*** *mieli**e**n* *mieli**h*** *mieli**i***
		*tyttäre**t*** *tyttäri**n / tyttäri**e**n* *tyttäri**h*** *tyttäri**e***	*venehe**t*** *venehi**e**n* *venehi**h*** *venehi**i***	*venehe**t*** *venehi**e**n* *venehi**h*** *venehi**e***	*perehe**t*** *perehi**e**n* *perehi**h*** *perehi**e***	*hernehe**t*** *hernehi**e**n* *hernehi**h*** *hernehi**i***
	me-		*sydäme**t*** *sydämi**e**n* *sidämi**h*** *sydämi**i***		*avuame**t*** *avuami**e**n* *avuami**h*** *avuami**e***	
	ze- / se-	*kuldaze**t*** *kuldazi**n / kuldazi**e**n* *kuldazi**h*** *kuldazi**e***	*moize**t*** *moizi**e**n* *moizi**h*** *moizi**i***	*kärbäize**t*** *kärbäizi**e**n* *körbäizi**h*** *kärbäizi**e***	*kerose**t*** *kerosi**e**n* *kerosi**h*** *kerosi**e***	*kuldaze**t*** *kuldazi**e**n* *kuldazi**h*** *kuldazi**i***
	ehe-	*valmehe**t*** *valmehih /*	*huogehe**t*** *huogehien*	*miehe**t*** *miehien*	*kaunehe**t*** *kaunehi**e**n*	

	*valmeh**i**en* *valmeh**i**h* *valmeh**i**e*	*huogeh**i**h* *huogeh**i**i*	*mieh**i**h* *mieh**i**e*	*kaunehih* *kaunehie*	
kSe-		*tunnukse**t*** *tunnuks**i**en tunnuks**i**h* *tunnuks**i**i*		*kakluks**e**t* *kakluks**i**en* *kakluks**i**h* *kakluks**i**e*	
AhA-		*armaha**t*** *armah**i**en* *armah**i**h* *armah**i**i*	*hambaha**t*** *hambah**i**en* *hambah**i**h* *hambah**i**e*	*antilaha**t*** *antilah**i**en* *antilah**i**h* *antilah**i**e*	
ie-	*void**i**et* *voide**i**n* / *voide**i**jen* *voide**i**h* *voide**i**da*	*katt**i**en* *katte**i**n* / *katte**j**ien* / *kattie**loi**n* *katte**i**h* / *katte**j**ih* / *kattie**loi**h* *katte**i**da* / *katte**j**i* / *kattie**lo**i*		*vuattie**t*** *vuatte**i**jen* *vuatte**i**h* *vuatte**i**ta*	*kattie**t*** *kattie**loi**n* *kattie**loi**h* *kattie**loi***
UO-	*siibyö**t*** *siibyz**i**n* / *siibyz**i**en* *siibyz**i**h* *siibyz**i**e*	*kätkyö**t*** *kätkyz**i**en* *kätkyz**i**h* *kätkyz**i**i*		*lyhyö**t*** *lyhy**i**jen* *lyhy**i**h* *lyhy**i**tä*	
	*uuduo**t*** *uuduz**i**n* / *uuduz**i**en* *uuduz**i**h* *uuduz**i**e*	*hyvyö**t*** *hyvyz**i**en* *hyvyz**i**h* *hyvyz**i**i*		*puhtahuve**t*** *puhtahuks**i**en* *puhtahuks**i**h* *puhtahuks**i**e*	
ttOmA-	*jallattoma**t*** *jallattom**i**n* / *jallattom**i**en* *jallattom**i**h* *jallattom**i**e*	*ozattoma**t*** *ozattom**i**en* *ozattom**i**h* *ozattom**i**i*		*nimettömä**t*** *nimettöm**i**en* *nimettöm**i**h* *nimettöm**i**e*	

Lexemes: same as Table 31, and also *herneh, päivy, sana.*

Table 33. Grammatical cases in Karelian dialects

			GenV 190–199	GenS 219–222	Rjag 54–60, 66–67	Palm 24–26, 40–41	Bel 42–45, 52–53	Manž 16–18, 25–26	GenA 147–149, 154	RjagL 133–135, 206–207	AnisG 4–14, 31, 75–76	GenL 18	Virt 19, 22	Bar 72–81, 86
nominative	SG	**0**	*vedo* *käzi*	*nahka* *orih*	*hara* *šammal*	*pertti* *лammaš*	*koivu* *kiindie*	*kala* *lammaš*	*kando* *mätäs*	*soba* *kieli*	*kana* *kirves*		*kando* *mätäZ*	*kala* *päre*
	PL	**-t**	*vevo-t* *keä-t*	*nahka-t* *orihe-t*	*hara-t* *šammale-t*	*perti-t* *лambaha-t*	*koivu-t* *kiindie-t*	*kala-t* *lambaha-t*	*kanno-t* *mättähä-t*	*sova-t* *kiele-t*	*kana-t* *kirvehe-t*			*kala-t* *pärege-t*
		-d							*kanno-d* *mättähä-d*				*kando-D* *mättähä-D*	
genitive	SG	**-n**	*vevo-n* *keä-n*	*nahka-n*	*hara-n/a* *šammale-n/e*	*perti-n* *лambaha-n*	*koivu-n* *kiindie-n*	*kala-n* *lambaha-n*	*kanno-n* *mättähä-n*	*sova-n* *kiele-n*	*kana-n* *kirvehe-n*		*kando-n* *mättähä-n*	*kala-n* *pärege-n*
	PL	**-n**		*nahkoi-n* *moaloi-n*	*haroi-n*	*perttilöi-n* *лambahii-n*	*koivuloi-n* *kiindei-n*	*kaloi-n* *lambahi-n*	*kandoloi-n*	*kielilöi-n*	*kanoi-n*			*üölüöi-n*
		-en	*käzi-en*	*orihi-en*	*korvi-en*				*mättähi-en*	*sobi-en* *kieli-en*	*kirvehi-en*			
		-j-en	*vedolo-j-en* *käzilö-j-en*	*mai-jen*					*kui-jen*					
		-den											*kanduoi-den* *mättähii-den*	*kaluoi-den* *päregi-den*
partitive	SG	**-V**	*vedu-a / vedu-o*	*nahko-a*	*haru-a*	*pertti-e*	*koivu-o*	*kalj-a*	*kandu-o*	*sobu-a /* *soba-a*	*kanu-a*			
		-TA	*kät-tä* *moa-da*	*orih-ta* *moa-da*	*šammal-da* *kirveš-tä*	*лammaš-ta* *puu-da*	*kiindie-dä*	*lammaš-ta*						
		-TU							*mätäs-tü* *peä-dü*	*kiel-dü* *päret-tü*	*kirves-ty* *mua-du*			
		-T(e)										*püü-d* *tuohus-te*	*kando-D* *mätäs-t*	*kala-t* *päret-te*

PL	**-V**	*reähki-ä / reähki-e*	*orihi-e*	*šammali-e*	*ŋambahi-e*	*lehmi-e*	*lambahi-e*	*mättähi-i*	*sobi-i* *kieli-i*	*kirvehi-i*			
	-j-A	*vedolo-j-a* *käzilö-j-ä* *moalo-j-a*			*pertilö-j-ä*								
	-T(V)	*mai-da*	*mai-da*	*peldoloi-da*	*hiemai-da*	*koivuloi-da* *kiindei-dä*	*kaloi-da*	*päi-dü*	*vagoloi-du*		*lindui-d*	*kanduoi-D* *mättähii-D*	*kaluoi-t* *päregi-t*
	0		*nahkoi* *moaloi*	*haroi*				*kandoloi* *peälöi*	*kielilöi* *vagoloi*	*kanoi* *mualoi*			

Lexemes: *hara*, *hiemoa*, *kala*, *kana*, *kando*, *kieli*, *kiindie*, *kirves / kirveš*, *koivu*, *kuu*, *käzi*, *lammaš / ŋammaš*, *lehmä*, *lindu*, *mua / moa*, *mätäs / mätäZ*, *nahka*, *orih*, *peldo*, *pertti*, *peä*, *puu*, *püü*, *päre*, *rebuoi*, *reähkä*, *šammal*, *soba*, *tuohus*, *vago*, *vedo*, *yö*.

Table 34. Grammatical cases in standard varieties of Karelian

			Bubr 38, 43, 46	Aht 39–42, 47, 52	Anis 48–51, 61, 68	ZaiK 55–60, 173 / ZaiV 76–84	Mark 41–47, 66 / Pyöl 30–39
nominative	SG	**0**	*randa* *uuzi*	*moa* *tuli*	*parda* *hammas*	*pelto* *pereh*	*mua* *pereh*
	PL	**-t**	*ranna-t* *uuve-t*	*moa-t* *tule-t*	*parra-t* *hambaha-t*	*pello-t* *perehe-t*	*mua-t* *perehe-t*
genitive	SG	**-n**	*ranna-n* *uuve-n*	*moa-n* *tule-n*	*parra-n* *hambaha-n*	*pello-n* *perehe-n*	*mua-n* *perehe-n*
	PL	**-n**	*rannoi-n* *uuzi-n*	*moaloi-n* *tuliloi-n*	*parroi-n*		*mualoi-n*
		-en	*uuzi-en*	*tuli-en*	*hambahi-en*	*perehi-en*	*perehi-en*
		-jen	*rando-jen*	*mai-jen*		*pelto-jen* *mai-jen*	
partitive	SG	**-V**	*randu-a*	*aido-a*	*pardu-a*	*peltu-o*	*vazu-a*
		-TA	*uut-ta* *mua-da*	*moa-da* *tuul-da* *veneh-tä*	*lammas-ta* *mua-da*	*pereh-tä* *mua-ta*	
		-TU					*mua-du* *pereh-tü*
	PL	**-V**	*uuzi-e*	*tuli-i* *venehi-i*	*lambahi-e*	*perehi-e*	*perehi-i*
		-j-A	*rando-j-a* *mualo-j-a*			*pelto-j-a*	
		-TA	*kiugai-da*	*mai-da*		*mai-ta*	
		0		*tuliloi* *moaloi* *aidoi*	*pardoi* *mualoi*		*mualoi* *vazoi*

Lexemes: *aidu*, *hammas*, *kiugua*, *mua* / *moa*, *parda*, *pelto*, *pereh*, *randa*, *tuli*, *uuzi*, *vaza*, *veneh*.

Table 35. Local cases in Karelian dialects

			GenV 191, 196–199	GenS 217–222, 233–235	Rjag 60–64, 66–67	Palm 28–36, 40–41	Bel 42–49, 52–53	Manž 17–23, 25–26	GenA 148–155	RjagL 206–207, 218–224	AnisG 8–9, 15, 31, 75–76	GenL 18–19	Virt 19, 22	Bar 72, 81–83, 86
abstract local cases	essive	**-nA**	*moa-na toize-na*	*moa-na hobie-na*	*hara-na šammale-na*	*pertti-nä лambaha-na*	*koivu-na kiindie-nä*	*kala-na lambaha-na*	*aiga-na-h*			*tä-nä*		
		-nnU							*peä-nnü lehmä-nnü*	*sova-nnu kiele-nnü*	*kana-nnu kirvehe-nny*			*kala-nnu pärege-nnü*
		-n(n)							*peä-n(n) üö-nn*	*vuo-n*	*tän yö-n*	*hüvä-n tervehe-n*	*kando-n mättähä-n*	
		-nne							Slm: *vedelijä-nne*					
	translative	**-kSi**	*moa-kši mai-ksi / moaloi-ksi* PL	*moa-ksi hobie-ksi*	*hara-kši šammale-kši*	*perti-ksi лambaha-kši*	*koivu-kši koivuloi-ksi* PL *kiindie-kši*	*kala-ksi lambaha-ksi*				LdC: *mi-kši*		
		-kSe	*moa-kše-ni*						*peä-kse valmehe-kse*	*sova-kse kiele-kse*	*kana-kse kirvehe-kse*	LdS: *mi-kse*		*kala-kse pärege-kse*
		-kS							*peä-ks vävü-ks*			LdS: *lopu-ks* LdC: *üö-kš*	*kando-kš mättähä-kš*	

Table 35 continued

	GenV 191, 196–199	GenS 217–222, 233–235	Rjag 60–64, 66–67	Palm 28–36, 40–41	Bel 42–49, 52–53	Manž 17–23, 25–26	GenA 148–155	RjagL 206–207, 218–224	AnisG 8–9, 15, 31, 75–76	GenL 18–19	Virt 19, 22	Bar 72, 81–83, 86
internal local cases												
inessive	**-SSA**	*moa-šša mai-ssa* / *moaloi-ssa* PL *šugaha-šša*	*moa-ssa orihe-ssa*	*hara-šša haroi-ssa* PL *šammale-šša*	*perti-ssä лambaha-šša*	*koivu-šša koivuloi-ssa* PL *kiindie-ššä*	*kala-šša kaloi-šša* PL *lambaha-šša*	*peä-ssä-ni*			*iče-ssä-h*		*eländä-ssä-h*
	-s/-z		*moa-s orihe-s*					*peä-s* / *peä-z mättähä-s*	*sova-s kiele-s*	*kana-s kirvehe-s*			*kala-s pärege-s*
	-ss											*kando-ss mättähä-ss*	
elative	**-StA**	*moa-šta mai-sta* / *moaloi-sta* PL		*hara-šta haroi-sta* PL *šammale-šta*	*perti-stä лambaha-šta*	*koivu-šta koivuloi-sta* PL *kiindie-štä*	*kala-šta kaloi-šta* PL *lambaha-šta*	*uvve-sta-h*					
	-s/-z							*peä-s* / *peä-z mättähä-s*	*sova-s kiele-s*	*kana-s kirvehe-s*	*külü-s-**piäi***	*kando-s(**piäi**) mättähä-s(**piäi**)*	*kala-s pärege-s*
illative	**-h**	*moa-h šugaha-h*	*moa-h orihe-h*	*hara-h šammale-h*	*pertti-h лambaha-h*	*koivu-h kiindie-h*	*kala-h lambaha-h*	*peä-h mättähä-h*	*soba-h kiele-h*	*kana-h kirvehe-h*	*mua-h venehe-h*		*kala-h pärege-h*
	-hV	*moa-ha kodi-hi-ni*						*peä-hä-ni*			*mua-ha üö-he*	*kanduoi-he* PL *mua-he*	
	-Ze	*šugaha-že rugehe-ze*						*mättähä-ze armahi-ze*			LdS: *paččaha-že*		*venehe-ze*

		-s/-z		*orihe-s*					*mättähä-z*					
		-V			*hara-a* *šammale-e*							*dälge-i* *külü-u* LdC: *kodi-i*	*kando-i* *mättähä-i*	
external local cases	adessive	**-llA**	*moa-lla*	*moa-lla*	*hara-lla* *šammale-lla*	*perti-llä* *лambaha-lla*	*koivu-lla* *kiindie-llä*	*kala-lla* *lambaha-lla*	*tävve-llä-h*			*endiže-lla-i*		
		-lA			*mei-lä*	*tüttölöi-lä*								
		-l		*moa-l*	*sova-l* *kiele-l*	*moa-l*			*peä-l*	*sova-l* *kiele-l*	*kana-l* *kirvehe-l*	*mei-ll*	*kando-л* *mättähä-л*	*kala-l* *pärege-l*
	ablative	**-ldA**	*moa-lda*		*hara-lda* *šammale-lda*	*perti-ldä* *лambaha-lda*	*koivu-lda* *kiindie-ldä*	*kala-lda* *lambaha-lda*						
		-l							*peä-l*	*sova-l* *kiele-l*	*kana-l* *kirvehe-l*		*kando-л(**piäi**)* *mättähä-л(**piäi**)*	*kala-l* *pärege-l*
	allative	**-llA**	*moa-lla*		*hara-lla* *šammale-lla*	*perti-llä* *лambaha-лла*	*koivu-lla* *kiindie-llä*	*kala-lla* *lambaha-lla*						
		-lle		*moa-lle-n'*					*peä-lle-ni*			*tuata-lle-h*		
		-le			*venča-le*				*peä-le* *piha-le*		*kana-le* *kirvehe-le*	*päči-le* *lume-le*	*kando-лe* *mättähä-лe*	*kala-le* *pärege-le*
		-l							*peä-l*	*sova-l* *kiele-l*				

Lexemes: *aigu*, *armas*, *d'algi*, *eländä*, *endine*, *hara*, *hobie*, *hyvä*, *iče*, *kala*, *kana*, *kando*, *kieli*, *kiindie*, *kirves* / *kirveš*, *kodi*, *koivu*, *kyly*, *lammaš* / *лammaš*, *lehmä* / *lehmy*, *loppu* / *lopp*, *lumi*, *mi*, *mua* / *moa*, *myö*, *mätäs* / *mätäZ*, *orih*, *pačaš*, *pertti*, *peä*, *piha*, *päčči* / *päčč*, *päre*, *ruis*, *soba*, *šammal*, *šuvaš*, *terveh*, *toine* / *toini*, *tuatte* / *tuatt*, *tyttö*, *tämä*, *täyzi*, *uuzi*, *valmis*, *vedelii*, *venča*, *veneh*, *vuosi*, *vävy*, *yö*.

Table 36. Local cases in standard varieties of Karelian

			Bubr 38–40, 43, 46	Aht 40–44, 47, 52	Anis 51–55, 61, 68	ZaiK 55, 60–66, 171, 173 / ZaiV 87–100	Mark 47–55, 66 / Pyöl 30–31, 39–46
abstract local cases	essive	**-nA**	*randa-na* *uude-na*	*moa-na* *lapse-na*	*parda-na* *hambaha-na*	*pelto-na* *värčči-nä* *perehe-nä*	
		-nnU					*mua-nnu* *koira-nnu* *perehe-nnü*
		-n		*suovatta-n*			
	translative	**-kSi**	*ranna-ksi* *uuve-ksi*		*parra-ksi* *hambaha-ksi*	*pello-kši* *värči-ksi* *perehe-kši*	
		-kSe		*moa-kse* *ranna-kse*			*mua-kse* *koira-kse* *perehe-kse*
internal local cases	inessive	**-SSA**	*ranna-ssa* *uuve-ssa*	*moa-ssa-ni*		*pello-šša* *värči-ssä* *perehe-ššä*	
		-S		*moa-s* *tule-s*	*parra-s* *hambaha-s*		*koira-s* *perehe-s*
	elative	**-StA**	*ranna-sta* *uuve-sta*	*moa-ssa-h(**päi**)*		*pello-šta* *värči-stä* *perehe-štä*	
		-S		*moa-s(**päi**)*	*parra-s* *hambaha-s*		*koira-s(**päi**)* *perehe-s(**päi**)*
	illative	**-h**	*randa-h* *uude-h*	*moa-h* *tule-h*	*pardah* *hambaha-h*	*pelto-h* *värčči-h* *perehe-h*	*koira-h* *perehe-h*
		-he		*moa-he-ni*			
	adessive	**-llA**	*ranna-lla* *uuve-lla*			*pello-lla* *värči-llä* *perehe-llä*	

	-lA				*soi-la*	
	-l		*moa-l*	*parra-l* *hambaha-l*		*koira-l* *perehe-l*
ablative	**-lTA**	*ranna-lda* *uuve-lda*			*pello-lta* *värči-ltä* *perehe-ltä*	
	-l		*moa-l(**päi**)*	*parra-l* *hambaha-l*		*koira-l(**päi**)* *perehe-l(**päi**)*
allative	**-llA**	*ranna-lla* *uuve-lla*			*pello-lla* *värči-llä* *perehe-llä*	
	-lA				*soi-la*	
	-le					*koira-le* *perehe-le*
	-lle		*moa-lle-h*			
	-l		*moa-l*	*parra-l* *hambaha-l*		

Lexemes: *hammas*, *koiru*, *lapsi*, *mua* / *moa*, *parda*, *pelto*, *pereh*, *randa*, *suo*, *suovatta*, *šuuri*, *tuli*, *uuzi*, *värčči*.

Table 37. Cases with concrete meanings in Karelian dialects

		GenV 191–192, 196	GenS 217–222, 233–235	Rjag 64–67	Palm 37–38, 40–41	Bel 49–50, 52–53	Manž 22–25	GenA 148–150, 152–153	RjagL 206–208, 236–238	AnisG 27, 31, 76	GenL 19–20	Virt 19, 22	Bar 72, 83, 86
abessive	**-ttA**	*moa-tta*	*moa-tta*	*hara-tta šammale-tta*	*perti-ttä лambaha-tta*	*koivu-tta kiindie-ttä*	*kala-tta lambaha-tta*		*sova-tta kiele-ttä*				
	-ttAh							*peä-ttä-h*		*kana-tta-h kirvehe-ttä-h*	*händä-ttä-h*		
	-tA							*peä-tä*		*kana-ta kirvehe-tä*		*kando-ta*	*kala-ta pärege-tä*
	-ttai											*kando-ttai mättähä-ttäi*	
comitative	**-i-neh**	*naiz**i**-neh lapš**i**-neh*						*laps**i**-neh*		*juur**i**-neh*	*kaikk**i**-neh*		*kaluo**i**-neh d'uur**i**-neh*
	-i-neV	*varo**i**-nee*											
	-i-nneh							*pereh**i**-nneh*	*sob**i**-nneh sammal**i**-nneh*	*pereh**i**-nneh*			
	-nke			*hara-nke šammale-nke*	*perti-nke лambaha-nke*	*koivu-nke kiindie-nke*	*kala-nke lambaha-nke*						
	-nke C(A)				*toato-ŋkeла*		*naize-nkera*						
instructive	**-i-n / n**	*ma**i**-n / moa**loi**-n*	*käzi-n*	*rinna-n haro**i**-n*	*kakš**ii**-n vuonn**ii**-n*		*pal'l'ah**i**-n jallo**i**-n*	*tääüz**i**-n*	*tukku**loi**-n ahven**i**-n*	*oč**i**-n käz**i**-n*	*d'alguo**i**-n*		*kaluo**i**-n päreg**i**-n*
	-i-0							*pahoi*					
prolative	**-čči**	*mai-čči oča-čči*	*mai-čči*	*korva-čči*				*rannoi-čči*			*čura-čči kahi-čči*		
	-či			*mua-či*					*oča-či silla-či*	*pello-či*			*üö-či peldo-či*

approximative	**-llUV**				*perti-llüe лambaha-ллuo*								
egressive	**-ldUV**				*perti-ldüe лambaha-лduo*								

Lexemes: *ahven, čura, jalga / ďalge, juuri / ďuuri, hara, hände / händ, kaikki, kaksi, kala, kana, kando, kieli, kiindie, kirves, koivu, korva, käzi, lammaš / лammaš, lapši, mua / moa, myö, mätäZ, naine, očča / očču, paha, paľľaš, peldo, pereh, pertti, peä, päre, randa, rinda, soba, šammal / sammal, silta, toatto, tukku, vara, vuonna, yö.*

Table 38. Cases with concrete meanings in standardised varieties of Karelian

		Bubr 41, 43, 46	Aht 44–45, 47, 52	Anis 51–56, 61, 68	ZaiK 55, 66–67, 173 / ZaiV 100–102	Mark 55–58 / Pyöl 30–31, 47–49
instructive	**-i-n**	*neni-n*	*tävve-n* *peä**löi**-n*		*pelto**loi**-n* *pereh**i**-n*	*koir**i**-n* *pereh**i**-n*
	-i-0		*kahte-i* *jalla-i*			
prolative	**-či**					*koira-či* *perehe-či*
abessive	**-ttA**	*ranna-tta* *uuve-tta*		*parra-tta* *hambaha-tta*	*pello-tta* *perehe-ttä*	
	-ttAh		*moa-tta-h* *ranna-ttah*			*koira-ttah* *perehe-ttäh*
	-tA		*moa-ta* *ranna-ta*			
comitative	**-i-neh**		*ma**i**-neh* / *moa**loi**-neh*		*pelto**loi**-neh* *pereh**i**-neh*	
	-i-nneh					*laps**i**-nneh* *hebo**loi**-nneh*
	-nke					*koira-nke* *perehe-nke*
exessive	**-nA(päi)**		*moa-na(päi)*			

Lexemes: *hammas, hebo, jalga, koiru, lapsi, moa, nenä, parda, pelto, pereh, peä, randa / randu, täyzi, uuzi.*

Table 39. Possessive suffixes in Karelian dialects

		GenV 203–204	RjagL 157–159	AnisG 29–30	GenL 21	Bar 84
1sg	**-ni**	*oma-ni*	*süöttaize-ni*	*muamo-ni*		
	-ini					*muamuo-ini*
2sg	**-s / -z**		*t'outa-z*	*muama-s*		
	-iš					*muama-iš*
3sg	**-h**		*tuatta-h*	*muama-h*	*tuatalle-h* ALL.SG	*muama-h*
2pl	**-nA**	*ičellä-nä* ADE.SG				
	-š	*ičellä-š* ADE.SG				
	-ttO		*iče-ttö*			

Lexemes: *iče*, *muamo* / *muam*, *oma*, *syöttäine*, *t'outa*, *tuatto* / *tuatt*.

Table 40. Possessive suffixes in standard varieties of Karelian

		Bubr 41–42	Aht 64–65	ZaiK 108–109 / ZaiV 125	Mark 59 / Pyöl 151
1sg	**-ni**	*tuatto-ni*	*poiga-ni*	*muamo-ni*	*poiga-ni*
2sg	**-S**	*tuatto-s*	*poiga-s*	*čikko-s*	*poiga-s*
3sg / 3pl	**-h**	*tuatto-h*	*ukko-h*	*jalassa-h* INE.SG	*poiga-h*
	-s		*kodihe-s* ILL.SG		
1pl	**-mmO**		*ičelle-mmö* ALL.PL		
2pl	**-ttO**		*lapsille-tto* ALL.PL		

Lexemes: *čikko, iče, jalka, kodi, lapsi, muamo, poiga / poigu, tuatto, ukko.*

Table 41. Comparatives in dialects of Karelian

		GenV 199	GenS 222	Rjag 97	Palm 42–43	Bel 66–68	Manž 38	GenA 155	RjagL 242–245	AnisG 178, 181–182	GenL 20	Virt 84–85	Bar 125–126
comparative	**-mbi (-mbA-)**	*kove-mbi* *pite-mbi*	*pitke-mbi* *lyhe-mbi*	*šome-mbi* *pahe-mbi*	*hieno-mbi* *šome-mbi*	*šagie-mbi* *kove-mbi*	*kove-mbi* *kove-mma-t* NOM.PL *korgie-mbi*	*köühe-mbi* *pitke-mbi*	*paksu-mbi* *piene-mbä-t* NOM.PL	*kove-mbi* *piene-mbi*			*kuive-mbi* *luje-mbi*
	-mb (-mbA-)										*čome-mb*	*vahne-mb* *vahne-mba-d* NOM.PL	
superlative	**-in (-imbA-)**	*kov-in* *pi-tin*	*pitk-in* *lyh-immä-s* INE.SG			*kov-in* *pieni-in*	*piti-in*						
	-in (-imA-)							*pitk-in* *suur-ima-l* ALL.SG	*vahn-in* *valge-in*	*pien-in* *pitk-in*	*vahn-ima-le* ALL.SG *nuor-ima-le* ALL.SG	*vahn-im* *vahn-ima-d* NOM.PL	*nuor-in* *vanh-in*
	analytical form	***kaikkiah*** *armahe**mbi***		***kaikkie*** *šome**mbi*** ***suamo*** *hüvä*	***soamo*** *kallehet* ***kaikkieh*** *šome**mma**t*	***kaikkie*** *hieno**mbi*** ***kaikkie*** *šome**mbi***	***kaikkie*** *pite**mbi***		***kaikkie*** *pare**mbi*** ***toizii*** *valgie**mba**t*	***kaikkie*** *levie**mbi***			***kaikkie*** *luje**mbi***

Lexemes: *armas, hieno, hyvä, kallis, korgie, kova, kuiv, köyhä, levei, luja, nuori, paha, paksu, pieni, pitkä / pitky, suuri, šagie, šoma / čoma, vahnu / vahn / vanh, valgei.*

Table 42. Comparatives in standard varieties of Karelian

		Bubr 34–35	Aht 56–57	Anis 77–79	ZaiK 94–96 / ZaiV 114–116	Mark 66–68 / Pyöl 53–56
comparative	**-mbi** **(-mbA-)**	*suure-mbi* *hieno-mbi*	*nuore-mbi* *märre-mbi* *märre-mbä-t* NOM.PL	*syve-mbi* *nuore-mbi*	*šuure-mpi* *šuure-mma-t* NOM.PL *piene-mpi* *piene-mpä-h* ILL.SG	*hoike-mbi* *hoike-mba-t* NOM.PL *suure-mbi* *suure-mba-h* ILL.SG
superlative	**-in** **(-imbA-)**	*suur-in* *suuri-mma-t* NOM.PL *hieno-in* *hieno-imba-h* ILL.SG		*syvin* *korge-in*	*šuuri-n* *šuuri-mma-t* NOM.PL *pieni-n* *pieni-mpä-h* ILL.SG	
	-in **(-imA-)**	*suur-in* *suur-ima-h* ILL.SG *hieno-in* *hieno-ima-h* ILL.SG	*nuor-in* *märr-in* *märg-imä-t* NOM.PL			*hoik-in* *hoikk-ima-t* NOM.PL *suur-in* *suur-ima-h* ILL.SG
	-vin **(-vimA)**					*korge-vin* *korge-vima-n* GEN.SG
	analytical form	***kaikkie*** *suure****mbi***	***kaikkii*** *suure****mbi***	***kaikkie*** / ***kaikis*** *madale****mbi***		***kaikkii*** *pitke****mbi***

Lexemes: *hieno, hoikku, korgei, madala, märgä, nuori, pieni, pitky, suuri / šuuri, syvä.*

Table 43. Numerals in Karelian dialects

		GenV 200–201	GenS 222	Rjag 98–100	Palm 43–44	Manž 44–48	GenA 156	RjagL 247–260	GenL 20 (Central / South Ludic)	Virt 80–83	Bar 127–131
cardinal and compound numerals	**1**	*ükši / üksi*		*üksi*	*üksi*	*yksi*	*ükši / üks*	*üksi*	*üks / ükš*	*ükš*	*üks*
	2	*kakši / kaksi*	*kaks*	*kakši*	*kakši*	*kakši*	*kaksi / kaks*	*kaksi*	*kaks / kakš*	*kakš*	*kakše*
	3	*kolme / kolmi*		*kolme*	*koлme*	*kolme*	*kolme*	*kolme*	*kolme*	*koлme*	*kolme*
	4	*nellä*	*nellä*	*nellä*	*nellä*	*nellä*	*nelli*	*nelli*	*nel'l'*	*nel'*	*nelle*
	5	*viizi*		*viizi*	*viizi*	*viizi*	*viizi / viiz*	*viizi*	*viiž*	*viiž*	*viiži*
	6	*kuuži*		*kuuži*	*kuuži*	*kuuži*	*kuuzi / kuuz*	*kuuzi*	*kuuz / kuuž*		*kuus*
	7	*šeiččemen / seiččemen*	*seičen*	*šeiččemän*	*šeiččemen*	*šeiččimen*	*seičči*	*seičče / seičči / seiččemen*	*seiččee / seičči / šeiččeme*	*seiččeme*	*seičči*
	8	*kahekšan*		*kahekšan*	*kahekšan*	*kahekšan*	*kaheksa*	*kaheksa / kaheksan*	*kaheksa*		*kaheksa*
	9	*ühekšän / üheksän*		*ühekšän*	*ühekšän*	*yheksän*	*üheksä*	*üheksä / üheksän*	*üheksä*		*üheksä*
	10	*kümmene*	*kymmen*	*kümmen*	*kümmenen*	*kymmenen*	*kümmen(e) / kümme(i)*	*kümmene*	*kümmene*	*kümmene*	*kümmene*
	100	*šada*		*šada*	*šada*	*šada*	*sada*	*sada*	*sada*	*sada*	*sada*
	1000	*tuhat*	*tuhat*	*tuhat*	*tuha*	*tuhatta*	*tuhad*	*tuhat*	*tuha*	*tuhai*	*tuha*
	11-19	*kolme toista* (*kümmendä*)		*üksitoista*	*üksitoista*	*yksitoista*	*kaks-tost(u)* (*-kümmen*)	*üksitostu / ükstostu*	*ükstoštkümmen / ükštošt*	*ükštošt*	*kolmetoš-* (*kümen*)
	tens	*kakši kümmendä*	*kaks-kymmen(dä)*	*viizi-kümmendä*	*kakšikümmendä*	*kakši-kymmendä*	*kolme-kümmen*	*kaksikümmen / kakskümmen*	*kakšküme*	*kakšküme*	*kolme-kümen*

Table 43 continued

		GenV 200–201	GenS 222	Rjag 98–100	Palm 43–44	Manž 44–48	GenA 156	RjagL 247–260	GenL 20 (Central / South Ludic)	Virt 80–83	Bar 127–131
ordinal numerals	**1.**	*enžimäne / enžimäni*	*e(n)zimäne / eizmäne*	*enzimäne / eezimäne*	*enžimäne*	*enzimäne*	*e(i)(n)zi-mäine / e(i)zmäne*	*enzimäine / enzimäne*		*endžimaine*	*enzimäine*
	2.	*toine / toini*	*toine*	*toine*	*toine*	*toine*	*toine*	*toine*		*toine*	*toine*
	3.	*kolmaš*		*kolmaš*	*koлmaš*	*kolmaš*	*kolmas / kolmaiz*	*kolmas*	*kolmaiš / kolmaš*	*kolmaž*	*kolmaš*
	4.	*nelläš*	*nelläs*	*nelläš*	*nelläš*	*nelläs'*	*nelläs*	*nelläs*	*nelläiš*	*nelläž*	*nelläš*
	5.	*viiješ*		*viiješ*	*viiješ*	*viijes'*	*viďďes / viijes*	*viďďes / vijjes*	*viideiš / viideš*	*viidež*	*viideš*
	6.	*kuuveš*		*kuuveš*	*kuuveš*	*kuuveš*	*kuvves*	*kuvves*		*kuudeš*	*kuudeš*
	7.	*š/seiččemeš*	*seičemes*	*šeiččemäš*	*šeiččemeš*	*šeiččimes'*	*seiččemes*	*seiččemes*		*seiččemež*	*šeiččemeš*
	8.	*kahekšaš*		*kahekšaš*	*kahekšaš*	*kahekšaš*	*kaheksas*	*kaheksas*		*kaheksaž*	*kaheksaš*
	9.	*üheksäš*		*ühekšäš*	*ühekšäš*	*yheksäs'*	*üheksäs*	*üheksäs*		*üheksaž*	*üheksäš*
	10.	*kümmeneš*		*kümmeneš*	*kümmeneš*	*kymmenes'*	*kümmenes*	*kümmenes*		*kümmenež*	*kümmeneš*
	100.					*šadahine*		*suas / saas*	*sadaš*	*sadaž*	
	1000.					*tuhattahine*		*tuhandes*	*tuhaš*	*tuhaž / tuhandež*	
	11.–19.	*üksi-toista-kümmeneš*	*yhtestoista*			*yksitoistäš*	*ühtestostu*	*ühtestostu*	*ükštoštkümmeneš*	*kahteštošt*	*kahteštoš*

Table 44. Numerals in standarised Karelian varieties

		Bubr 52	Aht 57–62	Anis 85–93	ZaiK 98–102 / ZaiV 139–146	Mark 78–86 / Pyöl 56–63
cardinal and compound numerals	**1**	*yksi* (*yhte-* / *yht-*)	*yksi* (*yhte-*)	*yksi*	*yksi*	*üksi*
	2	*kaksi* (*kahte-* / *kaht-*)	*kaksi* (*kahte-* / *kaht-*)	*kaksi*	*kaksi*	*kaksi*
	3	*kolme* (*kolme-*)	*kolme* (*kolme-*)	*kolme*	*kolme*	*kolme*
	4	*nellä* (*nellä-*)	*nelli* (*nellä-*)	*nellä*	*nellä*	*nelli*
	5	*viizi* (*viije-* / *viide-* / *viit-*)	*viizi* (*vijje-* / *viide-* / *viit-*)	*viizi*	*viisi*	*viizi*
	6	*kuuzi* (*kuuve-* / *kuude-* / *kuut-*)	*kuuzi* (*kuvve-* / *kuude-* / *kuut-*)	*kuuzi*	*kuusi*	*kuuzi*
	7	*seiččemen* (*seiččeme-* / *seičen-*)	*seičče* (*seiččeme-* / *seičen-*)	*seiččeme*	*seiččemen*	*seičči*
	8	*kaheksan* (*kaheksa-*)	*kaheksa* (*kaheksa-*)	*kaheksa*	*kaheksan*	*kaheksa*
	9	*yheksän* (*yheksä-*)	*yheksä* (*yheksä-*)	*yheksä*	*yheksän*	*üheksü*
	10	*kymmenen* (*kymmene-* / *kymmen-*)	*kymmen* (*kymmene-* / *kymmen-*)	*kymmene*	*kymmenen*	*kümmene*
	100	*sada* (*sua-* / *sada-*)	*sada* (*soa-* / *sada-*)	*sada*	*sata*	*sada*
	1000	*tuhat* / *tuhatta* (*tuhanne-* / *tuhande-* / *tuhat-* / *tuhata-* / *tuhatta-*)	*tuhat* (*tuhande-* / *tuhat-*) = *tuhatta* (*tuhata-* / *tuhatta-*)	*tuhat*	*tuhat*	*tuha*
	11-19	*yksitoista*	*kaksitosta*	*yksitoista*	*yksitoista*	*kaksitostu*
	tens	*kaksikymmendä*	*kaksikymmen*	*kaksikymmendä*	*kolmekymmentä*	*kaksikümmen*

Table 44 continued

		Bubr 52	Aht 57–62	Anis 85–93	ZaiK 98–102 / ZaiV 139–146	Mark 78–86 / Pyöl 56–63
ordinal numerals	**1.**		*ezmäine*	*enzimäine*	*enšimmäini*	*enzimäine*
	2.		*toine*	*toine*	*toini*	*toine*
	3.		*kolmas*	*kolmas*	*kolmaš*	*kolmas*
	4.		*nelläs*	*nelläs*	*nelläš*	*nelläs*
	5.		*vijjes*	*viijes*	*viiješ*	*viijes*
	6.		*kuvves*	*kuuves*	*kuuvveš*	*kuvves*
	7.		*seiččemes*	*seiččemes*	*seiččemeš*	*seiččemes*
	8.		*kaheksas*	*kaheksas*	*kahekšaš*	*kaheksas*
	9.		*yheksäs*	*yheksäs*	*yhekšäš*	*üheksäs*
	10.		*kymmenes*	*kymmenes*	*kymmeneš*	*kümmenes*
	100.			*sadas* / *suas*	*šuaš*	*suas*
	1000.			*tuhannes*	*tuhanneš*	*tuhandes*
	11.–19.		*kahtestoista*	*kahtestoista*	*yheštoista*	*kahtestostu*
fractions	**½**				*puoli*	*puoli*
	$^{1}/_{3}$		*kolmandes* / *yksikolmasvuitti* / *yksi vuitti kolmes*	*kolmannes*	*kolmanneš*	*kolmandes* / *kolmasvuitti*
	¼		*nelländes*	*nellännes*	*nellänneš*	*nelländes* / *nelläsvuitti*

Table 45. Pronouns in Karelian dialects

	GenV 202–206	GenS 223–224	Rjag 103–109	Palm 45–53	Manž 49–51	GenA 157–159	RjagL 264–282	AnisG 98–102	GenL 20–22	Virt 75–77	Bar 133–136	
personal pronons	*mie* *šie / sie* *heän* *müö* *tüö* *hüö*	*mie* *sie* *häin* *myö* *työ* *hyö*	*minä / mie* *šinä / šie* *hän / hiä* *müö* *tüö* *hüö*	*mie* *šie* *höän* *müö* *tüö* *hüö*	*mie* *sie* *hiän* *myö* *työ* *hyö*	*minä* *sinä* *häin / häi* *müö* *tüö* *hüö*	*minä* *sinä* *häin / häi* *müö* *tüö* *hüö*	*minä* *sinä* *häi* *myö* *työ* *hyö*	*minä* *sinä / šinä* *häin / hän* *müö* *tüö* *hüö*	*mina* *sina* *hän* *müö* *tüö* *hüö*	*minä* *sinä* *häi* *müö* *tüö* *hüö*	I you (2SG) he/she we you (2PL) they
reflexive pronouns	*iče*	*iče*	*iče*	*iče*	*iče*	*iče*	*iče*	*iče*			*iče*	self
reciprocal pronouns			*toine toista*	*toin' toizen*		*toine tostu*	*toine tostu*					one another
possessive pronoun			*oma*	*oma*	*oma*		*oma*					one's own
demonstrativepronouns	*tämä* *se* *toa* *tuo*	*tämä* *neče* *se* *toa, netämä, netoa*	*tämä* *še* *nämä* *ne*	*tämä* *že* *nämä* *ne* *noa*	*tämä* *se* *nämä* *net*	*tämä* *neče* *se* *tai / toi,* *netän / netai / netoi*	*tämä* *neče* *se* *tai / toi* *tuo* *nämä* *nene(t)* *ne(t)* *nuat / naat* *nuot*	*tämä* *neče* *se* *tai* *nämmä / nämät* *nenne / nenet* *net* *nuat*	*neče* *se / še* *nenne*	*tämä* *neče* *se* *tua* *nämä* *nene* *ne* *nua*	*tämä* *neče* *se* *tuai* *nämä*	this that, he/she these those those those

Table 45 continued

	GenV 202–206	GenS 223–224	Rjag 103–109	Palm 45–53	Manž 49–51	GenA 157–159	RjagL 264–282	AnisG 98–102	GenL 20–22	Virt 75–77	Bar 133–136	
relative and interrogative pronouns	*mi* *ken* *ku* *kumbane* *kudamane*	*mi* *ken* *ku* *kudai*	*mi* *ken* *kumbane* *mütüš*	*mi* *ken* *ku* *kumbane* *müütüš* / *miitüš*, *müüttünäne* / *miittüne*	*mi* *ken* *kumbane* *mytyt*	*mi* *ken* *ku* *kudai*	*mi* *ken* *kudai* *mitus*, *mituine* / *miittune*	*mi* *ken* *kudai*	 *kudain* *kudam*	*ken* *kudam* *mit'ťe*	*mi* *ken* *kudai* *miituine*	which who that, which what kind
negative polarity quantifier pronouns	*ni mi* *ni ken* *ni ku* *ni kudamane*	 *ei ni ken* *ei ni kudai* *ei ni miityttä*	*ni ˛midä* *ni ˛ken* *ni ˛mütüš*	*nemidä* *ne/ni|ken* *nemütüš*	 *niken*	*ni mi* *ni ken* *ni kus* *ni kudai*	*nimi*				*ni ken* *ni kudai*	nothing nobody neither not any, not any kind
quantifier pronouns	*hot-* *-taho* *-kačo* /*-kajo* *-ni* *eräš* *monia*/*ieš* *muuven* *muutoma*		*kuda-* *-nibuit'* *-buit'* *-to* *muuvennet*	*kuda-* *-nebut'* *-liw* *mudoaš* *muuveš*	*kuda-* *-ollou* *-olgah* *-to* *mud̨aš*	*hos-* *-tahto* *-kačot* *eräs*	*-tahto* *liennou* *ollow* *-to* *puuttuu* *eräs*		 *-lienou*		*-tahto* *-ni* *eräs*	some- although -ever one certain

quantifier pronouns				*üksi*		*üksi*						
	jogo / joga *jogohine*		*joga* *jogahine*	*jogo* *jogohiine*	*jogohine*	*joga / jogo* *jogahine*	*joga / ďoga* *jogahine /* *ďogahine*					every one, each
	kai / kaikki		*kaikki*	*kaikki*	*kai*	*kai*	*kai*				*kaiket*	every
	molommat *molen*	*mollembat /* *molletit* *mollen*		*моλетта*		*moni* *mollembad* *mollei*			*mollotid*			several both
	šamane *šama*					*samane*	*samane* *sama*					the same
	muu			*muu* *toini*	*muu* *toine*	*muu* *toine*	*muu*				*toine*	else another

Table 46. Pronouns in standard varieties of Karelian

	Bubr 52–53	Aht 62–73	Anis 94–100	ZaiK 106–119 / ZaiV 121–139	Mark 86–98 / Pyöl 63–71	
personal pronouns	*minä / mie* *sinä / šie* *hän* *myö* *työ* *hyö*	*minä* *sinä* *häi* *myö* *työ* *hyö*	*mie* *sie* *hän* *myö* *työ* *hyö*	*mie* *sie* *hiän* *myö* *työ* *hyö*	*minä* *sinä* *häi* *müö* *tüö* *hüö*	I you (2SG) he/she we you (2PL) they
reflexive pronoun		*iče*	*iče*	*iče + ni / s / h*	*iče*	self
reciprocal pronoun		*toine toizen*		*toini toisen*	*toine toizen*	one another
possessive pronoun			*oma*			
demonstrative pronoun	*tämä* *se / ne* *tuo / nuo*	*tämä / nämät* *neče / nenet* *se / net* *tai / toa / noat* *toi / tuo / nuot* *netäi / netai / netoi*	*tämä* *neče* *se / net* *tua* *-moine* *-jytys verda*	*tämä / nämä* *se / ne* *tuo / nuo*	*tämä / nämmä* *neče / nenne* *se / net* *tai / nuot* *moine* *nengoine*	this / these that / those it (he/she), those that / those kind of that kind
relative and interrogative pronoun	*mi* *ken* *kudama* *kumbane* *mitys* *mittyne*	*mi* *ken* *ku* *kudai* *kudamaine,* *kumbaine*	*mi* *ken* *kudama* *mitys* *mittyine*	*mi* *ken* *ku* *kumpani* *kumpi* *mimmone*	*mi* *ken* *kudai* *mittuine*	what who what kind that, which what kind

negative polarity quantifier pronouns		*ni-*	*nimi* *niken* *nikudama* *nimitys* *nimittyine*	*nimi / mikänä* *niken / kenkänä* *nimimmoni / mimmonikana*	*nimi* *niken* *nikudai* *nimittuine*	not one no one not any kind
quantifier pronouns		 *hos-, toko-* *-gi* *-tahto* *-kačot* *-liene* *-ollou* *-puuttuv* *moni* *monieš* *eräs* *yksi* *joga* *jogahine* *kai* *kogo* *mollen* *mollembat* *molletit* *samaine* *muu* *toine*	*kuda-* *-tahto* *-lienöy* *-ollou* *-libo* *eräs* *joga* *jogahine* *kai* *muu*	 *-nih (kennih, minih)* *-lienöy (ken lienöy, mi lienöy)* *moni* *monies* *eräs* *joka* *jokahine* *kaikki* *molommat* *muu* *toine*	*kuda-* *-gi* *-tah / -tahto* *-lienne* *eräs* *joga* *jogahine* *kai* *mollei* *mollembat* *toine*	some- although -ever -ever several certain one every, each all both same else another

Morphology: Verb conjugation

Table 47. Verb stem types in Karelian dialects

		GenV 222–224	GenS 235–239	Rjag 112–122	Bel 78–111	GenA 169–172	RjagL 301–338	AnisG 119–162	GenL 26–30	Virt 105–179	Bar 137–142, 173–177
single-stem verbs	**O-, U-**	*kiskua* *kisson* *kisko* *kissottih* *kis{s/k}okkah*	*kiškuo* *kiššon* *kiškoi* *kiššottih* *kiškokkah*	*šanua* *šanon* *šano* *šanottih* *šanokkah*	*šanuo* *šanon* *šano* *šanottih* *šanokkah*	*kačču* *kačon* *kačoi* *kačottih* *kaččokkah*	*kuduo* *kuvon* *kudoi* *kuvottih* *kudokkah*	*kuduo* *kuvon* *kudoi* *kuvottih* *ku{v/d}okkah*		*kaččoda* *kačon* *kačuoi* *kačottii* *kaččogai*	*punoda* *punon* *punuoi* *punottih* *punogah*
	i-		*läžie* *läžin* *läži* *läžittih* *läžikkäh*	*paššie* *pašin* *pašši* *pašittih* *paššikkah*	*kerie* *kerin* *keri* *kerittih* *kerikkäh*	*hüppie* *hüpin* *hüppi* *hüpittih* *hüppikkäh*	*oppie* *opin* *oppi*	*moittie* *moitin* *moitii* *moitittih* *moitikkah*		*hüppidä* *hüpin* *hüpii* *hüpittii* *hüppigai*	*oppida* *opin* *opii* *opittih* *oppigah*
	e-	*itkiä* *iten* *itki* *itettih* *itkekkäh*	*laskie* *lassen* *laski* *laskiettih* *laskekkah*	*kitkie* *kiten* *kitki* *kitettih* *kitkekkäh*	*lugie* *luven* *luvi* *lugiettih* *lugekkah*	*polgie* *pollen* *polgi* *polgiett|ih/eih* *polgekkah*	*lugie* *luven* *lugi*	*lugie* *luven* *lugi* *lugiettih* *lu{ve/gie}kkah*		*lähtä* *lähten* *läht* *lähtii* *lähkäi*	*lugeda* *lugen* *lugi* *lugettih* *lugegah*
	A-	*koadoa* *koan* *koado* *koattih* *koadakkah*		*šalvua* *šalvan* *šalvo* *šalvettih* *šalvakkah*	*kandua* *kannan* *kando* *kannettih* *kandakkah*	*andoa* *annan* *andoi* *annettih* *andakkah*	*ottua* *otan* *otti* *otettih* *ottakkah*	*kandua* *kannan* *kandoi* *kannettih* *kannakkah*	*antta* *andan* *anduoi* *anttii* *ankkai*	*anta* *andan* *anduoi* *antii* *ankai*	*andai* *andan* *anduoi* *andettih* *andagah*
		tüöndeä *tüönnän* *tüöndi* *tüönnettih* *tüöndäkkäh*	*murdoa* *murran* *murdi* *murrettih* *murdakkah*	*poltua* *poltan* *polti* *poltettih* *poltakkah*	*šoudua* *šouvat* *šoudi* *šouvettih* *šoudakkah*	*tiediä* *tiij/ddän* *tiezi* *tiettih* *tiedäkkäh*	*puzerdua* *puzerdan* *puzerdi* *puzerdettih* *puzerdakkah*	*voidua* *voijan* *voidi* *voijettih* *voijakkah*		*tietta* *tiedan* *tiež* *tietii* *tiekkai / tiedagai*	*muštai* *muštan* *mušti* *muštettih* *muštagah*

	VV-	*šoaha* *šoan* *šai* *šoadih* *šoagah*	*syyvä* *syön* *söi* *syödih* *syögäh*	*šuaha* *šuan* *šai* *šuadih* *šuagah*	*šuaha* *šuan* *šai* *šuadih* *šuagah*	*soaha* *soan* *sai* *soadih* *soagah*	*suaha* *suan* *sai* *suadih* *suagah*	*suaja* *suan* *sai* *suadih* *suagah*		*šüödä* *šüön* *šüöi* *šüödii* *šüögäi*	*suada* *suan* *suai* *suadih* *suagah*
	Viče-	*haravoija* *haravoičen* *haravoičči* *haravoidih* *haravoigah*		*naaja* *naičen* *naičči* *naidih* *naigah*	*vojja* *voičen* *voičči* *voidih* *voigah*	*haravojja* *haravoičen* *haravoičči* *haravoittih* *haravoikkah*					*haravuoit* *haravuoičen* *haravuoikkah*
two-stem verbs		*männä* *mänen* *mäni* *mändih* *mängäh*	*pessä* *pezen* *pezi* *pestih* *peskäh*	*männä* *mänen* *mäni* *mändih* *mäŋgäh*	*tulla* *tulen* *tuli* *tuldih* *tulgah*	*kuunnella* *kuundelen* *kuundeli* *kuunneld/ttih* *kuunnelg/kkah*	*sanella* *sanelen* *saneli* *saneldih* *sanelkah*	*olla* *olen* *oli* *oldih* *olgah*	*pestä* *pezen* *peži* *peštii* *peskäi*	*oлda* *oлen* *oli* *oldii* *oлgai*	*tulda* *tulen* *tuli* *tuldih* *tulgah*
	e-	*nägiä / nähä* *neän* *nägi* *nähtih* *nägekkäh /* *neäkkäh /* *nä{h/k}käh*		*nähä* *niän* *nägi* *nähtih* *nähkäh*	*nähä* *niän* *nägi* *nähtih* *nähkiä*		*nähtä* *näjen / näin /* *nägen* *nägi* *nähkäh*	*nähtä* *näin* *nägi* *nähtih* *nähkäh*			*nähtä* *nägen* *nägi* *nähtih* *nähkäh*
	e-	*tariччia / tarita* *taričen* *tariччi* *tari(če)ttih* *tari(če)kkah*		*tiiritä* *tiiričen* *tiiriччi* *tiirittih* *tiirikkäh*	*šuata* *šuačen* *šuaччi* *šuattih* *šuakkah*			*tarita* *taričen* *tariччi* *taritah* *tarikkah*		*pakita* *pakičen* *pakičč* *pakittii* *pakikkai*	*vallita* *valličen* *valliччi* *vallittih* *vallikkah*
		poata *pagenen* *pageni* *poattih* *poa{k/t'}kah*		*kuhmeta* *kuhmenen* *kuhmeni* *kuhmettih* *kuhmekkah*	*lietä* *lienen* *lieni* *liettih* *liekkäh*	*pareta* *parenen* *pareni* *parettih* *parekkah*		*pajeta* *pagenen* *pageni / pagei* *pajettih* *pajekkah*			*paheta* *pahenen* *paheni* *pahettih* *pahekkah*

Table 47 continued

		GenV 222–224	GenS 235–239	Rjag 112–122	Bel 78–111	GenA 169–172	RjagL 301–338	AnisG 119–162	GenL 26–30	Virt 105–179	Bar 137–142, 173–177
	VV-	*tahota* *tahk{ua/uo}n* *tahkoi* *tahottih* *ta{h/hk}okkah*	*purrata* *purgoan* *purgai* *purrattih* *purrakkah*	*harata* *haruan* *harai* *harattih* *harakkah*	*ruveta* *rubien* *rubei* *ruvettih* *ruvekkah*	*kirvota* *kirb{uo/oa}n* *kirboi* *kirvottih* *kirvokkah*	*čakata* *čakk{ua/aa}n* *čakkai* *čakkattih* *čakakkah*	*tavata* *tabuan* *tabai* *tavattih* *tavakkah*	*salbata* *salbadan* *salbaž* *salbattii* *salbakkai*	*kirbota* *kirbodan* *kirbož* *kirbottii* *kirbokkai*	*kerätä* *kerädän* *keräži* *kerättih* *keräkkäh*
	ja-	*varata* *varaj{a/oa}n* *var|azi/ai* *varattih* *varakkah*									

Lexemes: *andoa / andai / anta / antta, čakata, harata, haravojja / haravoija / haravuoit, hyppie / hyppidä, itkiä, kaččuo / kaččoda, kandua, kerie, kerätä, kirvota / kirbota, kiškuo / kiskua, kitkie, koadoa, kuduo, kuhmeta, kuunnella, laskie, lietä, lugie / lugeda, lähtä, läžie, moittie, murdoa, muštai, männä, naaja, nähtä / nägiä / nähä, olla / oлda, oppie / oppida, ottua, paheta, pajeta / poata, pakita, pareta, paššie, pessä / pestä, polgie, poltua, punoda, purrata, puzerdua, ruveta, salbata, šalvua, sanella, šanuo / šanua, šoudua, soaha / šoaha / suaha / šuaha / suada / suaja, šuata, syyvä / šyödä, tahota, tariččia / tarita, tavata, tiediä / tietta, tiiritä, tulla / tulda, työndeä, vallita, varata, voidua, vojja.*

Table 48. Verb stem types in standardised Karelian grammars

		Bubr 65–78	Aht 85–95	Anis 125–131	ZaiK 71–72	Mark 101–l08 / Pyöl 73–78
single-stem verbs	**o-, U-**	*nägyö* *nävyn* *nägyi* *nävyttih* *nävykkäh*	*kaččuo* *kačon* *kačoi* *kačottih* *kaččokkah*	*kaččuo* *kačon* *kaččoi* *kačottih* *kačokkah*	*uskuo* *uson* *uskou*	*kučču* *kučun* *kučču*
	i-	*moittie* *moitin* *moitti* *moitittih* *moitikkah*	*hyppie* *hypin* *hyppi* *hypittih* *hyppikkäh*	*moittie* *moitin* *moitti* *moitittih* *moitikkah*	*läsie* *läsin* *läsiy*	*oppie* *opin* *oppiu*
	e-	*lugie* *luven* *lugi* *lugiettih* *luvekkah*	*polgie* *pollen* *polgi* *polgiettih* / *polgeih*	*lugie* *luven* *lugi* *lugiettih* *lugiekkah*	*kulkie* *kulen* *kulkou*	*itkie* *itken* *itköü*
	A-	*andua* *annan* *andoi* *annettih* *annakkah*	*andoa* *annan* *andoi* *annettih* *andakkah*	*andua* *annan* *andoi* *annettih* *annakkah*	*ruatua* *ruan* *ruatau*	*kandua* *kannan* *kandau*
		muuttua *muutan* *muutti* *muutettih* *muutakkah*	*ottoa* *otan* *otti* *otettih* *ottakkah* / *ottoah*	*muuttua* *muutan* *muutti* *muutettih* *muutakkah*	*kirjuttua* *kirjutan* *kirjuttau*	*vediä* *vien* *vedäü*
	VV-	*syyvä* *syön* *söi* *syödih* *syögäh*	*myvvä* *myön* *möi* *myödih* *myögäh*	*myyvä* *myön* *möi* *myödih* *myögäh*	*syyvvä* *syön* *syöy*	*suaja* / *suaha* *suan* *suau*

	Viče-	*haravoija* *haravoičen* *haravočči* *haravoidih* *haravoigah*	*suvajja* *suvaičen* *suvaičči* *suvaidih* *suvaigah*	*haravoija* *haravoičen* *haravočči* *haravoidih* *haravoigah*	*kapaloija* *kapaloičen* *kapaloičču* *kapaloitu* *kapaloikua*	*kabaloija* *kabaloičen* *kabaloičču*
two-stem verbs	**e-**	*muutella* *muuttelen* *muutteli* *muutteldih* *muutelgah*	*tulla* *tulen* *tuli* *tuldih* *tulgah*	*muutella* *muuttelen* *muutteli* *muutteldih* *muutelgah*	*tulla* *tulen* *tulou* *tultu*	*panna* *panen* *panou* *pandu*
		nähtä *näen* *nägi* *nähtih* *nähkäh*	*nähtä* *näen* *nägi* *nähtih* *nähkäh*	*nähtä* *näjen* *nägi* *nähtih* *nähkäh*	*nähä* *niän* *näköy* *nähty*	*nähtä* *näin* *nägöü* *nähtü*
		mainita *mainičen* *mainičči* *mainittih* *mainikkah*	*suvajja* *suvaičen* *suvaičči* *suvaittih* *suvaikkah*		*keritä* *keriečen* *kerieččöy* *keritty*	*pakita* *pakičen* *pakičču* *pakittu*
		paeta *pagenen* *pageni* *paetah* *paekkah*	*valleta* *valgenen* *valgeni* *vallettih* *vallekkah*		*soveta* *sokenen* *sokenou* *sovettu*	*lühetä* *lühenen* *lühenöü* *lühettü*
	VV-	*salvata* *salbuan* *salbai* *salvattih* *salvakkah*	*leikata* *leikkoan* *leikkai* *leikattih* *leikakkah*	*salvata* *salbuan* *salbai* *salvattih* *salvakkah*	*kartata* *karttuan* *karttuau* *kartattu*	*katkata* *katkuan* *katkattu*
	ja-				*varata* *varajan* *varajau* *varattu*	

Lexemes: *andua / andoa, haravoija, hyppie, itkie, kabaloija / kapaloija, kačču, kandua, kartata, katkata, keritä, kirjuttua, kučču, kulkie, leikata, lugie, lyhetä, läsie, mainita, moittie, muutella, muuttua, myyvä / myyvä, nägyö, nähtä / nähä, oppie, ottoa, paeta, pakita, panna, polgie, ruatua, salvata, sanuo, soveta, suaja / suaha, suvajja, syyvä / syyvvä, tulla, uskuo, valleta, varata, vediä.*

Table 49. Present indicative singular personal endings in Karelian dialects

		GenV 212–215	GenS 226–239	Rjag 111–112	Palm 54	Bel 71	Manž 52–53	GenA 168–178	RjagL 285, 307, 325	AnisG 123–156	GenL 23–30	Virt 105–107, 150	Bar 143–144
1SG	**-n**	*šoa-n* *ite-n* *tahkua-n*	*syö-n* *kiššo-n* *purgoa-n*	*tavota-n* *lähe-n* *ite-n*	*müö-n* *ota-n* *kezröä-n*	*šua-n* *puhu-n* *rubie-n*	*abeuvu-n* *avi̯ale-n* *rubie-n*	*soa-n* *anna-n* *kirbuo-n*	*tuo-n* *puzerda-n* *čakkua-n*	*sua-n* *kanna-n* *tabua-n*	*anda-n* *salbada-n*	*šüö-n* *anda-n* *avaida-n*	*müö-n* *lähte-n*
2SG	**-t**	*šoa-t* *ite-t* *tahkua-t*	*syö-t* *kiššo-t* *purgoa-t*	*ota-t* *ite-t* *ole-t*	*müö-t* *ota-t* *kezröä-t*	*šua-t* *puhu-t* *rubie-t*	*abeuvu-t* *avi̯ale-t* *rubie-t*	*soa-t* *anna-t* *kirbuo-t*	*tuo-t* *puzerda-t* *čakkua-t*	*sua-t* *kanna-t* *tabua-t*			*müö-t* *lähte-t*
	-d							*soa-d* *anna-d* *kirbuo-d*			*anda-d* *salbada-d*	*šüö-D* *anda-D* *avaida-D*	
3SG	**U**					*šua-u* *puhu-u* *rubie-u*	*abeudu-u* *avi̯al'o-u* *rubie-u*		*puzerda-u* *sanelo-u*	*sua-u* *kanda-u* *tabua-u*	*anda-u* *salbada-u*	*šüö-u* *anda-u* *avaida-u*	*lähtö-ü*
	-v	*šoa-v* *itkö-v* *tahkua-v*	*syö-v*					*soa-v* *anda-v* *kirbuo-v*					*müö-v*
	-w				*müö-w* *otta-w* *kezröä-w*				Smz: *tuo-w*				
	-V	KrV: *kaččo-a* *käškö-ä*	*syö-ä* / *syö-o* *kisko-o*	*tulo-o* *pidä-ä* *rippu-u*					Tlm: *sano-o*				
	0			*magua*					Smz: *čakkua*				
	-b(V)										Vdn: *süö-b* *astu-b*		

-Pi / -bV	KrV: *šoa-pi* *ui-pi*						*voi-bi* *süö-bi*	Tlm: *tuo-bo* *čakkaa-bo*				
-t	*ui-t* *voi-t*			*voi-t*								

Lexemes: *abeuduo, andoa / antta / anta, astuda, avaita, avi̯al'l'a, čakata, itkie / itkiä, kaččuo, kandua, kezrätä, kirvota, kiškuo, käškie, lähtie / lähtedä, muata, myyvä / myödä, olla, ottua / ottoa, pidiä, puhuo, purrata, puzerdua, rippua, ruveta, salbata, sanella, sanuo, soaha / suaja / šuaha / šoaha, syyvä / syödä, tahota, tavata, tulla, tavottua, tuvva, uija, vojja / voija.*

Table 50. Present indicative plural personal endings in Karelian dialects

		GenV 212–215	GenS 226–239	Rjag 111–112	Palm 54	Bel 71	Manž 52–54	GenA 168–178	RjagL 285–286, 307, 325	AnisG 123–156	GenL 23–30	Virt 105–107, 150	Bar 143–144
1PL	**-mmA**	*šoa-mma* *ite-mmä* *tahkua-mma*	*syö-mmä* *kiššo-mma* *purgoa-mma*	*ota-mma* *külvä-mmä*	*müö-mmä* *ota-mma* *kezröä-mmä*	*šua-mma* *puhu-mma* *rubie-mma*	*abeuvu-mma* *avįale-mma* *rubie-mma*						
	-mmO							*sai-mmo* *anna-mmo* *kirbuo-mmo*	*tuo-mmo* *pie-mmö* *puzerda-mmo* *čakkua/aa-mmo*	*sua-mmo* *kanna-mmo* *tabua-mmo*			
	-mme										*anda-mme* *salbada-mme*	*šüö-mme* *anda-mme* *avaida-mme*	*müö-mme* *lähte-mme*
2PL	**-ttA**	*šoa-tta* *ite-ttä* *tahkua-tta*	*syö-ttä* *kiššo-tta* *purgoa-tta*	*čuhuta-tta*	*müö-ttä* *ota-tta* *kezröä-ttä*	*šua-tta* *puhu-tta* *rubie-tta*	*abeuvu-tta* *avįale-tta* *rubie-tta*						
	-ttO							*sai-tto* *anna-tto* *kirbuo-tto*	*tuo-tto* *pie-ttö* *puzerda-tto* *čakkua/aa-tto*	*sua-tto* *kanna-tto* *tabua-tto*			
	-tte										*anda-tte* *salbada-tte*	*šüö-tte* *anda-tte* *avaida-tte*	*müö-tte* *lähte-tte*

3PL	**-h**	*šoaha-h* *itetä-h / itkie-h* *tahota-h*	*syyvä-h* *kiššota-h* *purrata-h*	*kavota-h* *olla-h*	*müüvä-h* *oteta-h* *kezrätä-h*	*šuaha-h* *puhuta-h* *ruveta-h*	*abeuvuta-h* *avi̯al'l'a-h* *ruveta-n*	*soaha-h / soah* *anneta-h* *kirvota-h*	*tuvva-h* *pietä-h / pijjä-h* *puzerdeta-h* *čakata-h*	*suaja-h* *kanneta-h* *tavata-h*			*müödä-h* *lähtedä-h*
	-u										*antta-u* *salbata-u*	*šüödä-u* *anta-u* *avaita-u*	

Lexemes: *abeuduo, andua / andoa / antta / anta, avaita, avi̯al'l'a, čakata, čuhuttua, itkie / itkiä, kandua, kavottua, kezrätä, kirvota, kiškuo, kylvie, lähtedä, myyvä / myödä, olla, ottua / ottoa, pidiä, puhuo, purrata, puzerdua, ruveta, salbata, soaha / suaja / šuaha / šoaha, syyvä / syödä, tahota, tavata, tuvva.*

Table 51. Present indicative personal endings in standard varieties of Karelian

		Bubr 65–78	Aht 74–88	Anis 125–131	ZaiK 73–76	Mark 108–109 / Pyöl 78–80
1SG	**-n**	*anna-n* *luve-n* *salbua-n*	*anna-n* *leikkoa-n*	*kačo-n* *muuta-n* *myö-n*	*lähe-n* *luve-n* *makua-n*	*keitä-n* *tuo-n* *vastua-n*
2SG	**-t**	*anna-t* *luve-t* *salbua-t*	*anna-t* *leikkoa-t*	*kačo-t* *muuta-t* *myö-t*	*lähe-t* *luve-t* *mukua-t*	*keitä-t* *tuo-t* *vastua-t*
3SG	**-U**	*anda-u* *lugo-u* *salbua-u*		*kačč̆o-u* *muutta-u* *myö-y*	*lähtö-y* *luko-u* *makua-u*	*keittä-ü* *tuo-u* *vastua-u*
	-v		*anda-v* *soa-v* *leikkoa-v*			
	-bi		*soa-bi* *ui-bi* *voi-bi*			
1PL	**-mmA**	*anna-mma* *luve-mma* *salbua-mma*		*kačo-mma* *muuta-mma* *myö-mmä*	*lähe-mmä* *luve-mma* *makua-mma*	
	-mmO		*anna-mmo* *leikkoa-mmo*			*keitä-mmö* *tuo-mmo* *vastua-mmo*

2PL	**-ttA**	*anna-tta* *luve-tta* *salbua-tta*		*kačo-tta* *muuta-tta* *myö-ttä*	*lähe-ttä* *luve-tta* *makua-tta*	
	-ttO		*anna-tto* *leikkoa-tto*			*ketä-ttö* *tuo-tto* *vastua-tto*
3PL	**-h**	*anneta-h* *lugieta-h* *salvata-h*	*soaha-h* *anneta-h* *leikata-h*	*kačota-h* *muuteta-h* *myyvä-h*	*lähetä-h* *luveta-h* *muata-h*	*keitetä-h* *tuvva-h* *vastata-h*

Lexemes: *andua / andoa, kaččuo, keittiä, leikata, lugie / lukie, lähtie, muata, muuttua, myyvä, salvata, soaha, tuvva, vastata.*

Table 52. Formation of imperfect indicative personal pronouns in Karelian dialects

		GenV 212, 215	GenS 235–239	Rjag 111–112, 129	Palm 55	Bel 72	Manž 52–53	GenA 168–178	RjagL 285, 307, 325	AnisG 123–156	GenL 23–30	Virt 105–107, 150	Bar 143–149
1SG	**-n**	*ša**i**-n* *it**i**-n* *tahkoz**i**-n*	*sö**i**-n* *kiššo**i**-n* *purga**i**-n*	*ot**i**-n* *maga**i**-n*	*mö**i**-n* *oti**i**-n* *kezrä**i**-n*	*ša**i**-n* *puhu**i**-n* *rube**i**-n*	*abeuvu**i**-n* *avjal**i**-n* *ava**i**-n*	*sa**i**-n* *anno**i**-n* *kirbo**i**-n*	*to**i**-n* *puzerd**i**-n* *čakka**i**-n*	*sa**i**-n* *kanno**i**-n* *taba**i**-n*	*anduo**i**-n,* *salbaž**i**-n*	*šüö**i**-n* *anduo**i**-n* *avaiž**i**-n*	*müö**i**-n* *ot**i**-n* *läht**i**-n*
2SG	**-T**	*ša**i**-t* *it**i**-t* *tahkoz**i**-t*	*sö**i**-t* *kiššo**i**-t* *purga**i**-t*	*jät**i**-t* *puutu**i**-t*	*mö**i**-t* *oti**i**-t* *kezrä**i**-t*	*ša**i**-t* *puhu**i**-t* *rube**i**-t*	*abeuvu**i**-t* *avjal**i**-t* *ava**i**-t*	*sa**i**-t/d* *anno**i**-t/d* *kirbo**i**-t/d*	*to**i**-t* *puzerd**i**-t* *čakka**i**-t*	*sa**i**-t* *kanno**i**-t* *taba**i**-t*	*anduo**i**-d* *salbaž**i**-d*	*šüö**i**-D* *anduo**i**-D* *avaiž**i**-D*	*müö**i**-t* *ot**i**-t* *läht**i**-t*
3SG	**0**	*ša**i*** *itk**i*** *tahko**i***	*sö**i*** *kišk**oi*** *purga**i***	*šano* *keitt**i*** *pakko**i***	*mö**i*** *ott**i*** *kezrä**i***	*ša**i*** *puhu* *rube**i***	*abeudu* *avjal**i*** *ava**i***	*sa**i*** *ando**i*** *kirbo**i***	*to**i*** *puzerd**i*** *čakka**i***	*sa**i*** *kando**i*** *taba**i***	*anduo**i*** *salbaž*	*šüö**i*** *anduo**i*** *avaiž*	*müö**i*** *ott**i*** *läht**i***
1PL	**-mmV**	*ša**i**-mma* *rupe**i**-* *mma*	*sö**i**-mmä* *kiššo**i**-mma* *purga**i**-mma*	*polt**i**-mma* *kävi-mmä*		*ša**i**-mma* *rube**i**-* *mma*	*abeuvu**i**-mma* *avjal**i**-mma* *ava**i**-mma*	*sa**i**-mmo* *anno**i**-mmo* *kirbo**i**-mmo*	*to**i**-mmo* *puzerd**i**-* *mmo* *čakka**i**-mmo*	*sa**i**-mmo* *kanno**i**-mmo* *taba**i**-mmo*	*anduo**i**-mme* *salbaž**i**-mme*	*šüö**i**-mme* *anduo**i**-mme* *avaiž**i**-mme*	*müö**i**-* *mme* *ot**i**-mme* *läht**i**-mme*
	-mA	*itk**i**-mä* *tahkoz**i**-* *ma*			*mö**i**-mä* *ott**i**-ma* *kezrä**i**-mä*	*puhu-ma*							
2PL	**-ttV**	*ša**i**-tta* *rupe**i**-tta*	*sö**i**-ttä* *kiššo**i**-tta* *purga**i**-tta*	*šano**i**-tta*	*mö**i**-ttä* *kezrä**i**-ttä*	*ša**i**-tta* *rube**i**-tta*	*abeuvu**i**-tta* *avjal**i**-tta* *ava**i**-tta*	*sa**i**-tto* *anno**i**-to* *kirbo**i**-tto*	*to**i**-tto* *puzerd**i**-tto* *čakka**i**-tto*	*sa**i**-tto* *kanno**i**-tto* *taba**i**-tto*	*anduo**i**-tte* *salbaž**i**-tte*	*šüö**i**-tte* *anduo**i**-tte* *avaiž**i**-tte*	*müö**i**-tte* *ot**i**-tte* *läht**i**-tte*

	-(j)A	*itk**i**-ä* *tahkoz**i**-a*			*ott**i**-ja*	*puhu-ja*							
	-ie	KrV, Rbl: *käveli**-e***											
3PL	**-h**	*šoad**i**-h* *itett**i**-h /* *itke**i**-h* *tahott**i**-h*	*syöd**i**-h* *kiššott**i**-h* *purratt**i**-h*	*issutt**i**-h* *lükätt**i**-h*	*müöd**i**-h* *otett**i**-h* *kezrätt**i**-h*	*šuad**i**-h* *puhutt**i**-h* *ruvett**i**-h*	*abeuvutt**i**-h* *avi̯al'd**i**-h* *avatt**i**-h*	*soad**i**-h* *annett**i**-h* *kirvott**i**-h*	*tuod**i**-h* *puzerdett**i**-h* *čakkatt**i**-h*	*suad**i**-n* *kannett**i**-h* *tavatt**i**-h*			*müöd**i**-h* *otett**i**-h* *lähted**i**-h*
	-i			*vahnett**i**-i*							*antt**i**-i* *salbatt**i**-i*	*šüöd**i**-i* *ant**i**-i* *avaitt**i**-i*	

Lexemes: *abeuduo, andoa / antta / anta, avaita, avi̯al'l'a, čakata, istua, itkie / itkiä, jättie, kandua, keittie, kezrätä, kirvota, kiškuo, käyvä, kävellä, lykätä, lähtedä, muata, myyvä / myödä, ottua / ottoa, pakota, polttua, puhuo, purrata, puzerdua, puuttua, ruveta, salbata, šanua, soaha / suaja / šuaha / šoaha, syyvä / šyödä, tahota, tavata, tuvva.*

Table 53. Imperfect indicative personal endings in standard varieties of Karelian

		Bubr 65–78	Aht 85–95	Anis 107–109, 125–131	ZaiK 74–75, 78–79 / ZaiV 157	Mark 115–116 / Pyöl 84–88
1SG	**-n**	*söi-n* *annoi-n* *muutteli-n* *salbai-n*	*möi-n* *oti-n* *tuli-n* *leikkai-n*	*möi-n* *kačoi-n* *muuti-n* *salbai-n*	*kačoi-n* *kirjuti-n* *makai-n* / *makasi-n* *varasi-n*	*söi-n* *annoi-n* *pezi-n* *torai-n*
2SG	**-t**	*söi-t* *annoi-t* *muutteli-t* *salbai-t*	*möi-t* *oti-t* *tuli-t* *leikkai-t*	*möi-t* *kačoi-t* *muuti-t* *salbai-t*	*kačoi-t* *kirjuti-t* *makai-t* / *makasi-t* *varasi-t*	*söi-t* *annoi-t* *pezi-t* *torai-t*
3SG	**0**	*söi* *andoi* *muutteli* *salbai*	*möi* *otti* *tuli* *leikkai*	*möi* *kaččoi* *muutti* *salbai*	*kaččo* *kirjutti* *makai* / *makasi* *varasi*	*söi* *andoi* *pezi* *torai*
1PL	**-mmV**	*söi-mmä* *annoi-mma* *muutteli-mma* *salbai-mma*	*möi-mmö* *oti-mmo* *tuli-mmo* *leikkai-mmo*	*möi-mmä* *kačoi-mma* *muuti-mma* *salbai-mma*		*söi-mmö* *annoi-mmo* *pezi-mmö* *torai-mmo*
	-mA				*kaččo-ma* *kirjutti-ma* *makai-ma* / *makasi-ma* *varasi-ma*	
2PL	**-ttV**	*söi-ttä* *annoi-tta* *muutteli-tta* *salbai-tta*	*möi-ttö* *oti-tto* *tuli-tto* *leikkai-tto*	*möi-ttä* *kačoi-tta* *muuti-tta* *salbai-tta*	*toi-tta* *möi-ttä* *makai-tta*	*söi-ttö* *annoi-tto* *pezi-ttö* *torai-tto*

	-jA				*kaččo-ja,* *kirjutt**i**-ja* *maka**si**-ja* *vara**si**-ja*	
3PL	**-h**	*syöd**i**-h* *annett**i**-h* *muutteld**i**-h* *salvatt**i**-h*	*myöd**i**-h* *otett**i**-h* *tuld**i**-h* *leikatt**i**-h*	*myöd**i**-h* *kačott**i**-h* *muutett**i**-h* *salvatt**i**-h*	*kačott**i**-h* *kirjutett**i**-h* *muatt**i**-h* *varatt**i**-h*	*süöd**i**-h* *annett**i**-h* *pest**i**-h* *toratt**i**-h*

Lexemes: *andua, kaččuo, kirjuttua, leikata, muata, muutella, muuttua, myyvä, ottoa, pestä, salvata, syyvä / syvvä, torata, tulla, varata.*

Table 54. Imperative personal endings in Karelian dialects

		GenV 215–216	GenS 226–239	Rjag 143–147	Palm 61–62	Bel 72, 76, 78–111	Manž 63	GenA 168–178	RjagL 286, 311, 328–329	AnisG 106–107, 123–157	GenL 26–30	Virt 105–107, 150	Bar 160–162
2SG	**0**	*šoa* *ite* *mäne* *tahkua*	*syö* *kiššo* *peze* *purra*	*šano* *mäne* *šebie*	*müö* *ota* *ole* *kezröä*	*šua* *puhu* *tule* *rubie*	*jähkiä* *kirjuta*	*soa* *anna* *kirbuo*	*tuo* *puzerda* *čakku/aa*	*sua* *kanna* *tabua*	*anda* *peze* *salbada*	*šüö* *anda* *оπe* *avaida*	*ota* *ole*
3SG	**-KA-h**	*šoa-ga-h* *itke-kkä-h* *män-gä-h* *tah(k)ok-ka-h*	*syö-gä-h* *kiško-kka-h* *pes-kä-h* *purrak-ka-h*	*juo-ga-h/a* *šano-kka-h/a* *ol-ga-h/a* *ruvek-ka-h/a*	*otta-kka-h* *oл-ga-h*	*šua-ga-h* *puhu-kka-h* *tul-ga-h* *ruvek-ka-h*	*jähki-kkä-h* *kirjutta-kka-h*	*soa-ga-h* *anda-kka-h* *kirvok-ka-h*	*tuo-ga-h* *puzerda-kka-h* *čaka-kka-h*	*sua-ga-h* *kanna-kka-h* *tava-kka-h*			*voi-ga-h* *otta-ga-h* *ol-ga-h* *kerik-kä-h*
	-KA-i										*an-kka-i* *pes-kö-i* *salbak-ka-i*	*šüö-gä-i* *an-ka-i* *oл-ga-i* *avaik-ka-i*	
	-A+h	*kašvatto-a-h*											
	analytical			*anna hiän krivenöö*	*ana müöü* *ana kezröäü*				*anna puzerdau*	*anna tulou*			*anda sanou*
1PL	**-KA-m(m)V / -m**	*šoa-ga-ma* *itke-kkä-mä* *män-gä-mä* *tahok-ka-ma*						*soa-ga-mmo* *anda-kka-mmo* *kirvok-ka-mmo*	*tuo-gua-mmo* *puzerda-kk{ua/aa}-mmo* *čakka-kk{ua/aa}-mmo*	*sua-ga-mmo* *kanna-kka-mmo*	*pes-kä-m*		*otta-ga-m(me)* *ol-ga-m(me)*

	-KA	*šoa-ga itke-kkä män-gä tahok-ka*									*an-kka myö*		
	analytical	Pdn: *ana panemma*			*davai müömmä davai otamma*								
2PL	**-KV-A**	*šoa-go-a itke-kke-ä mange-ä tahok-ko-a*	*syö-ge-ä kiško-kko-a pes-ke-ä purrak-ko-a*	*tuo-gua jättä-kki-ä leikak-ku-a*	*müö-gö-ä otta-kko-a ол-go-a kezräk-kö-ä*	*šua-gu-a puhu-kku-a tul-gu-a ruvek-ku-a*	*jähki-kki-ä kirjutta-kk̨-a*	*soa-go-a anda-kko-a kirvok-ko-a käski-e-kke-ä*	*tuo-gu-a puzerda-kku/kka-a čakak-ku/ ka-a*	*sua-gu-a kanna-kku-a tavak-ku-a*			
	-KA-t(te)										*an-kka-tte pes-kä-tte salbak-ka-tte*	*šüö-gä-tt an-ka-tt ол-ga-tt avaik-ka-tt*	*otta-ga-t(te) ol-ga-t(te)*
	-KV-A-T(V)	*ülendä-kkö-ä-de*						*kuun(n)el-go-a-tto*	*puzerda-kk{ua/aa}-tto čakak-kua-/aa-t(to)*				
	-V+T(V)	KrV, Shz: *otto-a-da ečči-e-de kisku-o-da*						*ando-a-tto ando-a-t/d kačč̆o-o-tto ečči-ä-ttö*	*puzerdua-t*	*kandu-a-t nagru-a-tto*			

Table 54 continued

		GenV 215–216	GenS 226–239	Rjag 143–147	Palm 61–62	Bel 72, 76, 78–111	Manž 63	GenA 168–178	RjagL 286, 311, 328–329	AnisG 106–107, 123–157	GenL 26–30	Virt 105–107, 150	Bar 160–162
3PL	**-KA-h / -i**	*šoa-ga-h itke-kkä-h män-gä-h tah(k)ok-ka-h*		*juo-ga-h/a šano-kka-h/a ol-ga-h/a karak-ka-h/a*	*otta-kka-h ол-ga-h*	*šua-ga-h puhu-kka-h tul-ga-h ruvek-ka-h*	*jähki-kkä-h kirjutta-kka-h*				*an-kka-i pes-kä-i*		
	passive + KA+h												*voida-ga-h oteta-kka-h olda-ga-h keritä-kkä-h*
	passive + hV-ze/-s		*syödä-hä-s kiššotta-ha-s pestä-hä-s purratta-ha-s*					*soada-he/ az(e) annetta-he/ az(e) kirvotta-he/ az(e)*	*tuoda-hes puzerdetta-hes čakatta-hes*	*suoda-has kannetta-has tavatta-has*			
	analytical			*anna kuotellah*	*ana müüväh ana kezrätäh*				*anna puzerdetah*	*anna ostetah*	*anda pestäu*		*anda küzütäh*

Lexemes: *andoa / antta / anta, avaita, čakata, ečč̆ie, itkiä, juuva, jähkie, jättiä, kačč̆uo, kandua, kašvattoa, keritä, kezrätä, kirjuttj̆a, kirvota, kiškuo / kiskuo, krivetä, kuunnella, kuotella, kyzydä, käškie, leikata, myyvä, männä, nagrua, olla / olda, ostua, ottoa / ottada, panna, pessä / pestä, puhuo, purrata, puzerdua, ruveta, salbata, šanuo / sanoda, ševätä, soaha / suaja / šuaha / šoaha, syyvä / syödä, tahota, tavata, tulla, tuuva / tuvva, voida, ylendiä.*

Table 55. Imperative personal endings in standard varieties of Karelian

		Bubr 60–61, 65–78	Aht 75, 77, 82	Anis 118–131	ZaiK 88–89	Mark 146–150 / Pyöl 109–111
2SG	**0**	*syö* *anna* *muuttele* *salbua*	*soa* *ota* *tule* *leikkoa*	*myö* *kačo* *luve* *salbai*	*luve* *kačo* *mäne*	*tuo* *ota* *pane* *kaduo*
3SG	**-KA-h**	*syö-gä-h* *anna-kka-h* *muutel-ga-h* *salva-kka-h*	*saa-ga-h* *otta-kka-h* *pur-ga-h* *moa-kka-h*	*myö-gä-h* *kačo-kka-h* *lugie-kka-h* *salva-kka-h*	*luke-kka-h* *kaččo-kka-h* *män-kä-h* *vara-kka-h*	*tuo-ga-h* *ota-kka-h* *pan-ga-h* *sanel-ka-h* *kavo-kka-h*
	-V-h		*otto-a-h* *kaččᴜ-o-h*			
1PL	**-KA-mmV**		*soa-ga-mmo* *otta-kka-mmo* *ol-ga-mmo* *pes-kä-mmö*			
	-KUA-mmV			*lugie-kkua-mma* *kirjuta-kkua-mma*		*tuo-gua-mmo* *ota-kkua-mmo* *pan-gua-mmo* *sanel-kua-mmo* *kavo-kku-ammo*
	-KA				*luke-kka* *kaččo-kka* *män-kä*	
	-V-mmo		*otto-a-mmo* *kaččᴜ-o-mmo*			

2PL	**-KV-A**	*syö-gi-ä* *anna-kku-a* *muutel-gu-a* *salvak-ku-a*	*soa-go-a* *otta-kko-a* *pan-go-a* *suvaik-ko-a*	*myö-gi-ä* *kačo-kku-a* *lugie-kku-a* *salvak-ku-a*	*tuo-ku-a* *luke-kku-a* *kaččo-kku-a* *män-ky-ä* *ruvek-ku-a*	*tuo-gu-a* *jätä-kki-ä* *pan-gu-a* *sanel-ku-a* *kavok-ku-a*
	-KVA-ttO					*tuo-gua-tto* *ota-kkua-tto* *pan-gua-tto* *kavok-kua-tto*
	-V+t(tO)		*ottoa-t / ottoa-tto* *roadoa-t* *ečči-e-t* *kaču-o-t*	*kaču-o-t* *lugi-e-t* *muuttu-a-t*		
3PL	**-KA-h**	*syö-gä-h* *anna-kka-h* *muutel-ga-h* *salva-kka-h*	*soa-ga-h* *otta-kka-h*	*myö-gä-h* *kačo-kka-h* *lugie-kka-h* *salva-kka-h*	*luke-kka-h* *kaččo-kka-h* *män-kä-h* *vara-kka-h*	
	passive + hV-s		*soada-has* *otetta-has* *olda-has* *moatta-has*			*tuoda-hes* *otetta-hes* *panda-hes* *kavotta-hes*

Lexemes: *andua, ečči, jättiä, kaččuo, kavota, kirjuttua, leikata, lugie, moata, muutella, muuttua, myyvä, männä, olla, ottoa / ottua, panna, pestä, purra, roadoa, ruveta, salvata, sanella, soaha, suvaija, syyvä, tuuvva / tuvva, tulla, varata.*

Table 56. Simple conditional in Karelian dialects

		GenV 213, 224–234	GenS 226, 235–236	Rjag 140–143	Palm 59–61	Bel 71–73, 78–111	Manž 61	GenA 165, 170–178	RjagL 285–286, 310–328	AnisG 123–157	GenL 23, 26–28	Virt 105–107, 150	Bar 153–155
1SG and 1PL	**-iZi- / -isi-**	*ša-izi-n* *ša-izi-ma* *män-i-zi-n* *män-i-zi-mä* Rbl: *eleüdü-izi-n* Kst: *käveli-isi-n*	*pez-i-zi-n* *pez-i-zi-mmä*	*ša-izi-n* *hüppel-i-zi-n*	*mö-izii-n* *mö-izi-mä* *kezrä-izii-n* *kezrä-izi-mä*	*ša-izi-n* *ša-izi-ma* *tul-i-zii-n* *tul-i-zi-ma* *rube-izi-n* *rube-izi-ma*	*jahka-izi-n* *jahka-izi-mma* *ol-i-zi-n* *ol-i-zi-mma*	*kuundel-i-zi-n* *kuundel-i-zi-mmo*	*puzerda-izi-n* *puzerda-izi-mmo* *sanel-i-zi-n* *sanel-i-zi-mmo*	*ol-i-ži-n* *ol-i-ži-mmo*	*anda-iži-n* *anda-iži-mme* *peži-iži-n* *peži-iži-mme* *salbada-iži-n* *salbada-iži-mme*	*šüö-iži-n* *šüö-iži-mme* *anda-iži-n* *anda-iži-mme* *oli-iži-n* *oli-iži-mme* *avaida-iži-n* *avaida-iži-mme*	*pez-i-ži-n* *pez-i-ži-mme*
	-Zi-	*šoa-zi-n* *šoa-zi-ma* *koada-zi-n* *koada-zi-ma* *tahkua-zi-n* *tahkua-zi-ma*	*syö-zi-n* *syö-zi-mmä* *murda-zi-n* *murda-zi-mma* *purgoa-zi-n* *purgoa-zi-mma*	*anda-zi-n* *anda-zi-mma*	*otta-zii-n* *otta-zi-ma*	*puhu-zii-n* *puhu-zi-ma*		*soa-zi-n* *soa-zi-mmo* *anda-zi-n* *anda-zi-mmo* *kirbuo-zi-n* *kirbuo-zi-mmo*	*tuo-zi-n* *tuo-zi-mmo* *puzerda-zi-n* *puzerda-zi-mmo* *čakkua/aa-zi-n* *čakkua/aa-zi-mmo*	*sua-ži-n* *sua-ži-mmo* *kanda-ži-n* *kanda-ži-mmo* *tabua-ži-n* *tabua-ži-mmo*			*otta-ži-n* *otta-ži-mme*
3SG	**-iS / -iZ**	*ša-is* *koada-is* *män-i-s* *tahkua-is*	*kiško-is*	*ša-is'* *anda-is'* *šano-is'* *hüppel-i-z*	*mö-is'* *otta-is'* *kezrä-is'*	*ša-is'* *puhu-is'* *tuli-is'* *rube-is'*	*jahka-is'* *oli-is'*	*kuundel-i-s/z*	*sanel-i-s*	*ol-i-š*	*anda-iž* *peži-iž* *salbada-iž*	*šüö-iž* *anda-iž* *oli-iž* *avaida-iž*	*süö-iš* *ota-iš* *pezi-iš* *kezrädä-iš*

	-z / -S							*soa-s/z* *anda-s/z* *kirbuo-s/z*	*tuo-s* *puzerda-s* *čakk{ua/aa}-s*	*sua-š* *kanda-š* *tabua-š*			
	-zi		*syö-zi* *pezi-zi* *purgoa-zi*										
3PL	**passive + iS / iž**	*soada-is/iš* *koatta-is/iš* *mändä-is/iš* *tahotta-is/iš*	*syödä-is* *murreta-is* *pestä-is* *purratta-is*	*külvetta-is'*	*müödä-is'* *otetta-is'* *kezrättä-is'*	*šuada-is'* *puhutta-is'* *tulda-is'* *ruvetta-is'*	*jahkatta-is'* *olda-is'*				*antta-iš* *pestä-iš* *salbata-iš*	*šüödä-iž* *anta-iž* *oɲda-iž*	*suada-iš* *oteta-iš* *pestä-iš* *kezrätä-iš*
	passive + S / z							*soada-s/z* *anneta-s/z* *kuun(n)elda-s /* *kuun(n)eltta-s* *kirvotta-s/z*	*tuoda-s* *puzerdetta-s* *sanelta-s* *čakatta-s*	*suada-š* *kanneta-š* *tavatta-š*			
	-(C)CU + -(i)Zi-		*jättä-nyzi-n* *ol-luzi-n* *moa-nuzi-n*					*soa-nnuzi-n* *anda-nuzi-n* *murenda-nnuzi-n*	*puzerda-n(n)uzi-n* *čaka-nnuzi-n*	*sua-nnuži-n* *kanda-nuži-n* *tavan-nuži-n*	*noz-nuiži-tte* *sua-nuiži-d maksa-nuiži-d*	*šüö-nüži-n* *anda-nu(i)ži-n*	*otta-nuži-n* *ol-nuži-n*

Table 56 continued

		GenV 213, 224–234	GenS 226, 235–236	Rjag 140–143	Palm 59–61	Bel 71–73, 78–111	Manž 61	GenA 165, 170–178	RjagL 285–286, 310–328	AnisG 123–157	GenL 23, 26–28	Virt 105–107, 150	Bar 153–155
-(N)NU forms	**-(C)CU + -(i)S/(i)Z**		*ollu-s*					*soa-nnu{s/z}* *anda-nu{s/z}*	*puzerda-n(n)uz* *čaka-nnuz*	*sua-nnuš* *kanda-nuš* *tavan-nuš*		*šüö-nüž* *anda-nu(i)ž*	*otta-nuiš* *ol-nuiš*
	passive + NU + -(i)S/(i)-Z							*soada-nu{s/z}* *annet(t)a-nnu{s/z}*		*suada-nuš* *kanneta-nnuš* *tavata-nnuš*		*šüödä-nüž* *anta-nu(i)ž*	*oteta-nnu-iš* *olda-nuiš*
	passive + -s								*puzerdettu-s* *čakattu-s*				

Lexemes: *andua / andoa / antta / anta, avaita, čakata, eleydyö, hypellä, jahata, jättiä, koadua, kandua, kezrätä, kirvota, kiškuo, kuunnella, kylvettiä, kävellä, maksada, murdoa, murendoa, moata, myyvä, männä, nosta, olla / olda, ottoa / ottada, pessä / pestä, puhuo, purrata, puzerdua, ruveta, salbata, sanella, šanuo, soaha / suaja / šuaha / šoaha / suada, syyvä / syödä, tahota, tavata, tulla, tuuva.*

Table 57. Conditional in standard varieties of Karelian

		Bubr 61, 65–78	Aht 76–77, 81, 85–88	Anis 121–131	ZaiK 82–83	Mark 130–141 / Pyöl 96–103
forms with *-(i)zi/-(i)si, -(i)s*						
1SG and 1PL	**-zi-**	*syö-zi-n* *syö-zi-mmä* *anda-zi-n* *anda-zi-mma* *salbua-zi-n* *salbua-zi-mma*	*soa-zi-n* *otta-zi-n* *otta-zi-mmo* *leikkoa-zi-n* *leikkoa-zi-mmo*	*myö-zi-n* *myö-zi-mmä* *kaččo-zi-n* *kaččo-zi-mma* *salbua-zi-n* *salbua-zi-mma*		*sano-zi-n* *sano-zi-mmo otta-zi-n* *otta-zi-mmo* *paikkua-zi-n* *paikkua-zi-mmo*
	-izi-	*muuttel-i-zi-n* *muuttel-i-zi-mma*	*suvaičč-i-zi-n*	*lug-i-zi-n* *lug-i-zi-mma*		*tul-i-zi-n* *tul-i-zi-mmo*
	-si-				*keštä-si-n* *šiivuo-si-n* *šivuo-si-ma*	
	-isi-				*to-i-si-n* *unohta-isi-n* *män-i-si-n* *män-i-si-mä*	
3SG	**-s**	*syö-s* *anda-s* *salbua-s*	*soa-s* *otta-s* *leikkoa-s*	*myö-s* *kaččo-s* *salbua-s*		*sano-s* *otta-s* *paikkua-s*
	-is	*muuttel-i-s*	*suvaičč-i-s*	*lug-i-s*	*keittä-is* *luk-i-s* *män-i-s* *šiivuo-is*	*tul-i-s*

3PL	**pass. + -s**	*syödä-s* *anneta-s* *muutelta-s* *salvatta-s*	*soada-s* *otetta-s* *leikatta-s*	*myödä-s* *kačotta-s* *lugietta-s* *salvatta-s*		*sanotta-s* *otetta-s* *tulda-s* *paikatta-s*
	pass. + -is				*keitettä-is* *luvetta-is* *mäntä-is* *šiivotta-is*	
forms with *-NUzi-, -NUs*						
1SG	**-CUzi-**		*soa-nuzi-n* *otta-nuzi-n* *leikan-nuzi-n*	*myö-nyzi-n* *kačč̆o-nuzi-n* *luge-nuzi-n* *salvan-nuzi-n*		*otta-nuzi-n* *tul-luzi-n* *paikan-nuzi-n*
	-nnUzi-					*süö-nnüzi-n* *nostata-nnuzi-n*
3SG	**-CUs**		*soa-nus* *otta-nus* *leikan-nus*	*myö-nys* *kačč̆o-nus* *luge-nus* *salvan-nus*		*otta-nus* *tul-lus* *paikan-nus*
	-nnUs					*süö-nnüs* *nostata-nnus*
3PL	**pass. + -nUs**		*soada-nus*	*myödä-nys* *kačotta-nus* *lugietta-nus* *salvatta-nus*		*süödä-nüs* *nostatetta-nus* *tulda-nus*
	pass. + -nnUs		*oteta-nnus,* *leikata-nnu-s*			*oteta-nnus* *paikata-nnus*
	pass. + -s		*soadu-s* *otettu-s* *leikattu-s*			

Lexemes: *andua, kačč̆uo, keityä, keštyä, leikata, lugie / lukie, muutella, myyvä, männä, ottoa / ottua, paikata, salvata, sanuo, šiivota, soaha, suvaija, syyvä / syvvä, tuuvva, tulla, unohtua.*

Table 58. Potential in Karelian dialects

		GenV 212–213, 224–234	GenS 235–236	Rjag 139–140	Palm 59	Bel 72, 78–111	Manž 61	GenA 164–165, 170–178	RjagL 285–286, 309–327	AnisG 123–156	GenL 26–28	Virt 105–107, 150	Bar 158
1SG and 1PL	**-Ce-**	*soa-ne-n* *soa-ne-mma* *koada-ne-n* *koada-ne-mma* *män-ne-n* *män-ne-mmä* *tahon-ne-n* *tahon-ne-mma*	*syö-ne-n* *syö-ne-mmä* *murda-ne-n* *murda-ne-mma* *pes-se-n* *pes-se-mmä* *purran-ne-n* *purran-ne-mma*	*otta-ne-n*	*anda-ne-n* *lähte-ne-mmä*	*tul-le-n* *tul-le-mma* *ruven-ne-n* *ruven-ne-mma*		*anda-ne-n* *anda-ne-mmo* *kuun(n)el-le-n* *kuun(n)el-le-mmo* *kirvon-ne-n* *kirvon-ne-mmo*	*puzerda-ne-n* *puzerda-ne-mmo* *sanel-le-n* *sanel-le-mmo* *čakan-ne-n* *čakan-ne-mmo*	*kanda-ne-n* *kanda-ne-mmo* *tavan-ne-n* *tavan-ne-mmo*	*anda-ne-n* *anda-ne-mme* *pez-ne-n* *pez-ne-mme* *salban-ne-n* *salban-ne-mme*	*šüö-ne-n* *šüö-ne-mme* *anda-ne-n* *anda-ne-mme* *noz-ne-n* *noz-ne-mme* *avaidan-ne-n*	*otta-ne-n* *otta-ne-mme* *pez-ne-n* *pez-ne-mme*
	-nne-					*šua-nne-n* *šua-nne-mma* *puhu-nne-n* *puhu-nne-mma*	*jahka-nne-n* *jahka-nne-mma*	*soa-nne-n* *soa-nne-mmo* *murenda-nne-n*	*tuo-nne-n* *tuo-nne-mmo* *puzerda-nne-n* *puzerda-nne-mmo*	*sua-nne-n* *sua-nne-mmo*			
3SG	**-CO-**	*soa-no-v* *koada-no-v* *män-nö-v* *tahon-no-v*	*syö-nö-ö* *murda-no-o* *pes-sö-ö*		*lähte-nö-w* *otta-no-w* *оп-ло-w* *ruven-no-w*	*tul-lo-u* *ruven-no-u*		*anda-no-v* *kuun(n)el-lo-v* *kirvon-no-v*	*puzerda-no-u* *sanel-lo-u* *čakan-no-u/o*	*kanda-no-u* *tavan-no-u*	*anda-no-u* *pez-nö-u* *salban-no-u*	*šüö-nö-u* *anda-no-u* *noz-no-u* *avaidan-no-u*	*otta-no-v* *pez-nö-v*
	-nnO-			*šua-nno-o* *anda-nno-o*		*šua-nno-u* *puhu-nno-u*	*jahka-nno-u*	*soa-nno-v* *murenda-nno-v*	*tuo-nno-u/o* *puzerda-nno-u/o*	*sua-nno-u*			

3PL	**passive + -ne-**	*soada-ne-h* *koatta-ne-h* *mändä-ne-h* *tahotta-ne-h*	*syödä-ne-h* *murretta-ne-h* *pestä-ne-h* *purratta-ne-h*					*soada-ne-h*	*tuoda-ne-h* *puzerdeta-ne-h* *sanelta-ne-h*	*suada-ne-h*			*pestä-ne-h*
	passive + -nne-					*puhutta-nne-h* *šuada-nne-h* *tulda-nne-h* *ruvetta-nne-h*	*jahkatta-nne-h*	*annet(t)a-nne-h* *kuun(n)elda-nne-h /* *kuun(n)elt(t)a-nne-h* *kirvot(t)a-nne-h*	*tuoda-nne-h* *puzerdeta-nne-h* *sanelta-nne-h* *čakata-nne-h*	*kanneta-nne-h* *tavata-nne-h*			*oteta-nne-h*
	passive + -nO-		*syödä-nö-ö* *murretta-no-o* *pestä-nö-ö* *purratta-no-o*								*antta-no-u* *pestä-nö-ü*	*šüödä-no-u* *anta-no-u* *nosta-no-u*	
	passive + -nnO-										*salbata-nno-u*		

Lexemes: *andua / andoa / antta / anta, avaita, čakata, jahata, koadua, kandua, kirvota, kuunnella, lähtie, murdoa, murendoa, männä, nosta, olla, ottoa / ottua / ottada, pessä / pestä, puhuo, purrata, puzerdua, ruveta, salbata, sanella, soaha / suaja / šuaha / šoaha, syyvä / syödä, tahota, tavata, tulla, tuuva.*

Table 59. Potential in standard varieties of Karelian

		Bubr 60–61, 65–78	Aht 76, 81, 85–88	Anis 121–131	ZaiK 85–86 / ZaiV 184–185	Mark 141–143 / Pyöl 105–107
1SG and 1PL	**-Ce-**	*syö-ne-n* *syö-ne-mmä* *anda-ne-n* *anda-ne-mma* *salvan-ne-n* *salvan-ne-mma*	*soa-ne-n* *otta-ne-n* *otta-ne-mmo* *pur-re-n* *leikan-ne-n* *leikan-ne-mmo*	*myö-ne-n* *myö-ne-mmä* *kaččo-ne-n* *kaččo-ne-mma* *tul-le-n* *tul-le-mma* *salvan-ne-n* *salvan-ne-mma*	*viene-n* *luke-ne-n* *luke-ne-mma* *juoš-še-n* *juoš-še-mma* *ruven-ne-n* *ruven-ne-mma*	*voitta-ne-n* *voitta-ne-mmo* *pur-re-n* *pur-re-mmo* *leikan-ne-n* *leikan-ne-mmo*
	-nne-		*hävitä-nne-n* *kabrasta-nne-n*			*tuo-nne-n* *tuo-nne-mmo* *kazvatta-nne-h* *kazvatta-nne-mmo*
3SG	**-CO-**	*syö-nö-y* *anda-no-u* *salvan-no-u*	*otta-no-v* *leikkan-no-v*	*myö-nö-y* *kaččo-no-u* *tul-lo-u* *salvan-no-u*	*vienö-y* *luke-no-u* *juoš-šo-u* *ruven-no-u*	*voitta-no-u* *pur-ro-u* *leikan-no-u*
	-nnO-		*hävitä-nnö-v*			*tuo-nno-u* *kazvata-nno-u*

3PL	**passive + -ne-**	*syödä-ne-h* *annetta-ne-h* *salvatta-ne-h*	*tuoda-ne-h* *pestä-ne-h* *moatta-ne-h*	*myödä-ne-h* *kačotta-ne-h* *tulda-ne-h* *salvatta-ne-h*	*luvetta-ne-h* *juošta-ne-h* *ruvetta-ne-h*	*tuoda-ne-h* *kazvatetta-ne-h* *purta-ne-h*
	passive + -nne-		*oteta-nne-h* *leikata-nne-h*			*voiteta-nne-h* *leikata-nne-h*

Lexemes: *andua, hävittiä, juošša, kabrastoa, kačču̇o, kazvattua, leikata, lukie, moata, myyvä, ottoa, pestä, purra, ruveta, salvata, soaha, syyvä, tuvva, tulla, viijä, voittua.*

Table 60. Negative imperative forms in Karelian dialects

	GenV 221	Rjag 143–147	Palm 62	Bel 77–78	Manž 63	GenA 179	RjagL 335–336	AnisG 116	GenL 26–30	Virt 105–107, 150	Bar 161
2SG	***elä*** *anna*	***elä*** *kuundele*	***elä*** *ota*	***elä*** *puhu*	***elä*** *kirjuta*				***ela*** *anda*	***ела*** *оле*	
						älä *tapa*	***älä*** *puzerda* / ***äläs*** *puzerda*	***älä*** *koske*			***älä*** *ota*
3SG	***elgäh*** *andakkah*		***elgäh*** *ottakkah*	***elgäh*** *puhukkah*	***elgäh*** *kirjuttakkah*				***elgai*** *ankkoi*	***елgai*** *олguoi* / *олgai*	
						älgäh *ottakkah*	***älgäh*** *puzerdakkah*	***älgäh*** *koskiekkah* / *koskieh*			***älgäh*** *ottagah*
1PL	***elgämä*** *andakka*								***elgam*** *ankkoi*		
							älgiemmö *puzerdakkua* / ***älgeemmö*** *puzerdakkaa*	***älgiämmä***			***älgäm(me)*** *ottagam*

2PL	***elgeä*** *andakkoa*	***elgie*** *kuivailgua*	***elgöä*** *ottakkoa*	***elgiä*** *puhukkua*	***elgiä*** *kirjuttakkja*				***elgat*** *ankkoi*	***eŋgatt*** *oŋguoi / oŋgai*	
						älgeä *unohtakkoa*	***älgie*** *puzerdakkua* / ***älgee*** *puzerdakkaa* ***älgiet(tö)*** *puzerduat* / ***älgeet(tö)*** *puzerdaat*	***älgiä*** *koskiekkua / koskiet*			***älgät(te)*** *ottagat*
3PL	***elgäh*** *andakkah*		***elgäh*** *ottakkah*	***elgäh*** *puhukkah*	***elgäh*** *kirjuttakkah*				***elgai*** *ankkoi*		
						äldähes / äldäheze	***äldähes*** *puzerdettahes*	***älgiäh***			

Lexemes: *andua / antta, kirjuttja, koskie, kuivailla, kuunnella, olda, ottoa / ottada, puhuo, puzerdua, tappoa, unohtoa.*

Table 61. Negative imperative forms in standard varieties of Karelian

	Bubr 62	Aht 83, 89	Anis 125	ZaiK 89–90	Mark 150 / Pyöl 111
2SG	*älä sano*	*älä ota*	*älä sano*		*älä ota*
				elä kačo	
3SG	*älgäh sanokkah*	*älgäh ottakkah* / *ottoah*	*älgäh sanokkah*		*älgäh otakkah*
				elkäh kaččokkah	
1PL		*älgämmö ottakkammo* / *ottoammo*			*älgiämmö otakkuammo*
				elkä kaččokka	
2PL	*älgiä sanokkua*	*älgeä ottakkoa* / *ottoat*	*älgiä sanokkua* / *sanuot*		*älgiä otakkua*
				elkyä kaččokkua	
3PL	*älgäh sanokkah*	*äldähäs otettahas*	*älgäh sanokkah*		*älgähes otattahes*
				elkäh kaččokkah	

Lexemes: *kačču*o, *ottua* / *ottoa*, *sanuo*.

Table 62. Reflexive verb personal endings in Karelian dialects

		GenV Kst 235–236	GenV Shz 235–236	GenV Rbl 235–236	GenV Pdn 235–236	GenS 230–233	GenA 179–182	RjagL 352–355	AnisG 117–118	GenL LdS 26	Bar 183–192
PRES.IND.1SG, PRES.IMP.1SG, PRES.CON.1SG, PRES.POT.1SG	**-(m)mV+s / že**				*kumardelia-mmaže* *kumardeli-mmaže* *kumardeliazi-mmaže* *kumarrelle-mmaže*	*keändele-mmös* *keändeli-mmös* *keändelizi-mmös* *keännelle-mmös*	*kačo-mmos* *kačoi-mmos* *kaččozi-mmos* *kaččone-mmos*	*mukelda-mmos* *mukeldi-mmos* *mukeldazi-mmos* *mukeldanne-mmos*		*salbada-mos* *salbaži-mos* *salbadaiži-mos* *salbanne-mos*	*ištu-mos* *ištui-mos* *ištuži-mos* *ištune-mos*
	-mmV+h			*keändele-mmeh* *keändeli-mmeh* *keändelizi-mmeh* *keännelle-mmeh*			*kačo-mmoh* *kačoi-mmoh*		*ištu-moh* *ištui-moh* *ištuži-moh* *ištune-moh*		
	-(m)mA + čči / čče	*issu-mmačči* *istu-mačči* *istusi-mačči* *istune-mmačči*	*kumardoa-mačče* *kumardi-mačče* *kumardoazi-mačče*								
PRES.IND.2SG	**-(t)tV+s / že**				*kumardelia-ttaže*	*keändele-ttös*	*kačo-ttos*	*mukelda-ttos*		*salbada-tos*	*ištu-tos*
	-ttV+h			*keändele-tteh*			*kačo-ttoh*		*ištu-toh*		
	-(t)tA+čči / čče	*issu-ttačči*	*kumardoa-tačče*								

Table 62 continued

		GenV Kst 235–236	GenV Shz 235–236	GenV Rbl 235–236	GenV Pdn 235–236	GenS 230–233	GenA 179–182	RjagL 352–355	AnisG 117–118	GenL LdS 26	Bar 183–192
PRES.IND.3SG	**-h / -hes(e) / -hez(e)**				*kumardelia-h*	*keändele-h(es)*	*kačo-h / kačo-hez(e)*	*mukelda-hes(e)*	*ištu-h*	*salba-heze*	*ištu-heze*
	-kši / -kš	*issu-kši*	*kumarra-kši*	*keändele-kš*	*kumardelia-ksi*						
PRES.IND.PL1, PRES.IND.2PL	**-(m)mO / -(t)tO + kseh**					*keändele-mmökseh keändele-ttökseh*	*kačo-mmokseh kačo-ttokseh*	*mukelda-mmokseh mukelda-ttokseh*	*ištu-mokseh štu-tokseh*	*salbada-mokseh salbada-tokseh*	*ištu-mokseh ištu-tokseh*
	-mmA / -ttA+ že				*kumardeliate-mmaže kumardeliate-ttaže*						
	-(m)mA / -(t)tA + čči / čče / ččeh	*issu-mmačči issu-ttačči*	*kumardoa-mačče kumardoa-tačče*	*keändele-mmäččeh keändele-ttäččeh*							
PRES.IND.3PL	**-hVZe / -hVS**		*kumarreta-haže*	*keännellä-häš*	*kumarrella-haže*	*keännellä-häs*	*kačota-hez(e) / haz(e)*	*mukeldeta-hes(e)*	*ištuta-heze*	*salbata-heze*	*ištuta-heze*
	-hAčči	*issuta-hačči*									

imperative	2SG	**-te**	*istuo-te*		*keändeliä-te*	*pezie-te*	*keändelie-te*				*salba-te*	*ištu-de*
		-če		*kumardoa-če*								
		-jje / **-i**						*kaččo-jje* / *kaččo-i*	*mukelda-jje* / *mukelda-i*	*išto-jje* / *išto-i*		
	3SG	**-hVZe** / **-hVS**		*kumardakka-haže*	*keännelgä-häš*	*peskä-häže*		*kaččokka-hez(e)* / *haz(e)*	*mukeldakka-hes*	*ištuokka-has* / *haze*	*salbakka-heze*	*ištuga-heze*
		-hAčči	*istukka-hačči*									
	2PL	**-hVZe** / **-hVS**				*peskeä-heže*	*keännel-gä-häs*					
		-čči **-ččeh**	*istukkoa-čči*	*kumardak-kuo-ččeh*	*keännelgeä-ččeh*							
		-kseh							*mukeldakkaa-ttokseh* / *mukeldakkaa-ttos*	*ištuoto-kseh*	*salbaka-tokseh*	*ištuga-tokseh*

Lexemes: *ištuokseh / ištudakseh, kaččuokseh, keännelläkšeh / keännelläkse, kumarrellakšeh / kumardeliakšeh / kumardoaččeh, mukeldaakseh, pessäkseh, salbatakseh.*

Table 63. Reflexive verb personal endings in standard varieties of Karelian

			Aht 116–125	Anis 115–116	Mark 170–177 / Pyöl 113–121
indicative	PRES.1SG IMPERF.1SG	**-mmOs**	*heitä-mmös* *heiti-mmös*	*laske-mmos* *laski-mmos*	*ota-mmos* *oti-mmos*
	2SG	**-ttOs**	*heitä-ttös*	*laske-ttos*	*ota-ttos*
	3SG	**-h(es)**	*heitä-h(es)*	*laske-h*	*otta-h(es)*
	1PL	**-mmOkseh**	*heitä-mmökseh*	*laske-mmokseh*	*ota-mmokseh*
	2PL	**-ttOkseh**	*heitä-ttökseh*	*laske-ttokseh*	*ota-ttokseh*
	3PL	**pass. + -h(es)**	*heitetä-hes* / *heitä-h(es)*	*laskieta-hes*	*oteta-hes*
imperative	2SG	**-i /** **-jje**	*heittä-i* / *heitä-jje*		*otta-i*
	3SG	**-KAhVs**	*heittä-kkähäs*		*ota-kkahes*
	1PL	**-K(V)AmmOkseh**	*heittä-kkämmökseh*		*ota-kkuammokseh*
	2PL	**-KVAttOkseh**			*ota-kkuattokseh*
		-KVAkseh	*heittä-kkeäkseh*		
		-ttOkseh	*heitteä-ttökseh*		
	3PL	**pass. + -hVs**	*heitettä-häs*		*otetta-hes*

Lexemes: *heitteäkseh*, *laskiekseh*, *ottuakseh*.

Table 64. Infinitives in Karelian dialects

		GenV 216–217, 224–240	GenS 235–236	Rjag 153–157	Palm 65–67	Bel 112–116	Manž 54–57	GenA 166, 170–178	RjagL 371–376	AnisG 119–162, 204–206	GenL 23, 27–32	Virt 105–160	Bar 162–165
infinitive with *t* (1st infinitive)	**-A**	*koado-a* *lugi-a* *šanu-a*	*murdo-a*	*laulu-a* *ambu-a*	*ando-a*	*nagru-a*	*voidį-a*	*ando-a*	*ruadu-a* *ruada-a*	*kandu-a*			
	-e	*lugi-e*	*läži-e*	*šüötti-e*	*itki-e*	*moli-e*	*kiruoči-e*	*lähti-e*	*lugi-e*	*lugi-e*			
	-O	*šanu-o*	*kišku-o*		*ambu-o*	*kadu-o*	*viru-o*	*sanu-o*	*kudu-o*	*kudu-o*			
	-vA	*lüü-vä*	*syy-vä*	*müü-vä*	*šüü-vä*	*juu-va*	*juu-va*	*juv-va*	*müv-vä*	*juv-va*			
	-jA	*ui-ja*	*haravoi-ja*	*pui-ja*	*aštoi-ja*	*pui-ja*	*ui-ja*	*vii-ja*	*nai-ja*	*sua-ja* *pui-ja*			
	-hA	*šoa-ha*	*soa-ha*	*nä-hä*	*nä-hä*			*soa-ha*	*sua-ha*				
	-lA	*kiännel-lä*	*ol-la*	*ol-la*	*küžel-lä*	*kuul-la*	*tul-la*	*kävel-lä*	*ommel-la*	*ol-la*			
	-rA	*pur-ra*		*pur-ra*	*pur-ra*	*pur-ra*		*pur-ra*					
	-nA	*pan-na*	*män-nä*	*män-nä*	*män-nä*			*pan-na*					
	-sA	*väris-sä*	*pes-sä*	*möös-sä*	*möis-sä*	*ravis-sa*	*ravis-sa*						
	-šA	*peš-šä*		*noš-ša*	*peš-šä*								
	-tA	*lükä-t-ä*	*purra-t-a*	*hüpä-t-ä*	*ruve-t-a*	*lykä-t-ä*	*ero-t-a*	*pare-t-a* *nos-ta* Säämäj.: *kävel-tä*	*mua-t-a* *pes-tä*	*tari-t-a* *juos-ta* *pur-ta*	*ant-ta* *löü-tä* *salba-t-a*	*an-ta* *kirbo-t-a* *nos-ta*	*maga-t-a* *nos-ta*
	-dA										*pasta-da*	*šüö-dä* *oл-da*	*sano-da* *tuo-da* *pan-da*
	-i										*os-ta-i*		*otta-i*

Table 64 continued

		GenV 216–217, 224–240	GenS 235–236	Rjag 153–157	Palm 65–67	Bel 112–116	Manž 54–57	GenA 166, 170–178	RjagL 371–376	AnisG 119–162, 204–206	GenL 23, 27–32	Virt 105–160	Bar 162–165
infinitive ending with *-e* (2nd inifinitve)	**-Ce-SSA/s(s)**	*šoa-he-šša*	*syy-ve-s(sä)*	*čura-t-e-šša*	*тил-ле-šša*	*lykä-t-e-ššä*	*kevel-le-ssä*	*soa-he-s*				*šüö-de-ss an-te-ss*	*otta-de-s pes-te-s*
	-je-s(sA)		*kiško-je-s(sä)*					*anda-je-s*	*seizo-je-s*	*hyppi-je-s*			
	-e-s							*anda-e-s*					
	inf1+SSA	*koadoa-šša (s'š'a)*		*elie-ssä*	*ševottoa-s'š'a*	*nagrua-s'š'a*	*eliä-ssä*						
	-Ce-n	*šoa-he-n*		*ravis-se-n*		*lykä-t-e-n*			*kuul-te-n*	*tul-le-n*			*küzü-de-n*
	-je-n			*kanda-je-n*						*hyppi-je-n*			
	inf1+n	*koadoa-n*			*kiirehtöä-n*	*nagrua-n*							
infinitive with *m* (3rd infinitive)	**-(m)mA-ššA/s/z**			*oŋgitta-ma-šša*	*niittä-mä-ššä*	*nagra-ma-šša*	*kyndä-mä-ššä*		*lähte-mä-z*	*ruada-ma-s*	*anda-ma-s salbada-mma-s*		*niittä-mä-s*
	-mA-šta			*oŋgitta-ma-šta*	*niittä-mä-štä*	*lypšä-mä-štä*	*kyndä-mä-štä*						
	-m(m)A-h/V	*koada-ma-h*		*pakkua-ma-h*	*niittä-mä-h*	*nagra-ma-h*	*kyndä-mä-h*	*anda-ma-h*	*pui-ma-h*	*sua-ma-h*	*anda-ma-a salbada-mma-a*	*šüö-mä-i anda-ma-i*	*niittö-mä-h*
	-mA-l										*laske-ma-l*		

	-(m)mA-ttA/ ttAh/ttAi			*juo-ma-tta*	*magoa-ma-tta*	*nagra-ma-tta*	*kyndä-mä-ttä*		*süö-mä-tä/ttäh*	*vuotta-ma-ta/ttah*	*anda-ma-tta(i) salbada-mma-tta(i)*		*keittä-mä-ttä/tä*
	-mV-V			*ombele-mu-a peže-mi-e*	*roado-mo-a*								

Lexemes: *ambuo / ambua*, *andoa / antta / anta*, *aštoija*, *čurata*, *eliä / elie*, *erota*, *haravoija*, *hyppie*, *hypätä*, *itkie*, *juosta*, *juuva / juvva*, *kaduo*, *kandua*, *keittädä*, *kiirehtöä*, *kirbota*, *kiruočie*, *kiškuo*, *kiännellä*, *koadoa*, *kuduo*, *kuulla / kuulta*, *kyndiä*, *kyzydä*, *kyžellä*, *kävellä / käveltä*, *laulua*, *lasketa*, *lugie / lugia*, *lykätä*, *lypšiä*, *lyyvä*, *lähtie*, *läžie*, *löytä*, *molie*, *muata / moata / magata*, *murdoa*, *myyvä*, *männä*, *möössä / möissä*, *nagrua*, *naija*, *niitteä / niittädä*, *nosta / nošša*, *nähä*, *olla / olda*, *ommella*, *ongittua*, *ostai*, *ottai / ottada*, *pakota*, *panna / panda*, *pareta*, *pastada*, *peššä / pessä / pestä*, *puija*, *purra / purta*, *purrata*, *ravissa*, *roadoa / ruadua / ruadaa*, *ruveta*, *salbata*, *seizuo*, *šanuo / sanuo / šanua / sanoda*, *ševottoa*, *šoaha / suaha / soaha / suaja*, *šyyvä / syyvä / šyödä*, *šyöttie*, *tarita*, *tulla*, *tuoda*, *uija*, *viija*, *viruo*, *voidja*, *vuottua*, *värissä*.

Table 65. Infinitives in standard varieties of Karelian

		Bubr 64	Aht 78–79	Anis 103–104, 141–144	ZaiK 121–127 / ZaiV 189	Mark 153–158 / Pyöl 112–123
1st infinitive	**-A**	*eli-ä*	*ando-a*	*ruadu-a*	*malttu-a*	*löüdi-ä*
	-e	*käski-e*	*lugi-e*	*lugi-e*	*kylpi-e*	*lugi-e*
	-O	*sanu-o*	*sanu-o*	*kačču-o*	*opaštu-o*	*pöllästü-ö*
	-vA	*syy-vä*	*tuv-va*	*juu-va*	*juuv-va*	*juv-va*
	-jA	*haravoi-ja*	*suvaj-ja*	*pui-ja*	*palmikoi-ja*	*igäväi-jä* *sua-ja*
	-hA	*sua-ha*	*soa-ha*	*sua-ha*	*šua-ha*	
	-lA	*kuul-la*	*kuul-la*	*tul-la*	*ol-la*	*kävel-lä*
	-rA	*pur-ra*	*pur-ra*	*vier-rä*	*pur-ra*	
	-nA	*pan-na*	*pan-na*	*män-nä*	*män-nä*	*men-nä*
	-SA				*peš-šä*	
	-tA	*ava-t-a* *juos-ta*	*tari-t-a* *näh-tä* *pes-tä*	*ava-t-a* *näh-tä*	*mua-t-a*	*souri-t-a* *pes-tä* *pur-ta*
2nd infinitive	**-Ce-SSA/s**	*kuull-e-ssa*	*pes-te-s*	*kuull-e-s*	*pann-e-šša*	*pann-e-s*
	-je-s	*anda-je-ssa*	*hävittä-je-s*	*astu-je-s*		*kaččo-je-s*
	0-SSa	*andua-ssa*			*ruatua-s's'a* *lukie-šša*	
	-Ce-n	*kuull-e-n*	*anda-e-n*	*kuull-e-n*	*pann-e-n*	*pann-e-n*
	-je-n	*anda-je-n*	*anda-je-n*	*astu-je-n*		*kaččo-je-n*
	-e-n				*kučču-e-n*	
	0-n	*andua-n*				

3rd infinitive	**-mA-SSA/s**	*pyydä-mä-ssä*	*tule-ma-s*	*kyndä-mä-s*	*kaččo-ma-ssa*	*osta-ma-s*
	-mA-StA/späi	*pyydä-mä-stä*	*tule-ma-s(päi)*		*kaččo-ma-sta*	*osta-ma-späi*
	-mA-h	*avua-ma-h*	*tule-ma-h*	*kyndä-mä-h*	*kaččo-ma-h*	*osta-ma-h*
	-mA-llA/l		*tule-ma-l*		*kaččo-ma-lla*	*osta-ma-l*
	-mA-ttA/ttAh	*luge-ma-tta*	*tule-ma-ta/ttah*	*ruada-ma-tta*	*kaččo-ma-tta*	*osta-ma-ttah*
	-mA-A		*tule-mo-a*			*osta-mu-a*

Lexemes: *andua* / *andoa*, *astuo*, *avata*, *eliä*, *haravoija*, *hävitteä*, *igävöijä*, *juosta*, *juuva* / *juuvva* / *juvva*, *kaččuo*, *kučču*o, *kuulla*, *kylpie*, *kyndiä*, *käskie*, *kävellä*, *lugie* / *lukie*, *löydiä*, *malttua*, *muata*, *männä*, *nähtä*, *olla*, *opastuo*, *ostua*, *palmikoija*, *panna*, *pessä* / *pestä*, *puija*, *purra* / *purta*, *pyydiä*, *pöllästyö*, *ruadua* / *ruatua*, *sanuo*, *suaha* / *soaha* / *suaja*, *suorita*, *suvajja*, *syyvä*, *tarita*, *tulla*, *tuvva*, *vierrä*.

Table 66. Participles in Karelian dialects

		GenV 217–220, 224–240	GenS 235–236	Rjag 157–160	Palm 67–69	Bel 113–120	Manž 56–57	GenA 166–168, 170–178	RjagL 373–376	AnisG 202–204	GenL 19, 27–32	Virt 24–25	Bar 166–172
active 1st participle	**-jA**	*-ja ~ -jä*		*vedä-jä pakkua-ja itki-ja*	*lendä-jä лugi-ja*	*nagra-ja tuo-ja pani-ja kargaji-ja*	*aštu-ja kuundeli-ja keriä-jä*		*raada-ja-n*	*anda-ja-n*			*otta-ja-t pezi-jä-t*
	-i			*n'ukku-i*					*jauho-i*	*anda-i*	*istu-i elä-i*		*küzü-i sanuo-i tuli-i*
	-ju								*magua-ju*	*juo-ju*			
	-va	*koada-va-n šoa-va-n mänö-vä-n taričč̌o-va-n*	*murda-va syö-vä peze-vä purgoa-va*					*anda-va-n soa-va-n nouze-va-n parene-va-n*					
active 2nd participle	**-(C)CUn**	*šoa-nun män-nün tarin-nun*		*juo-nun tul-lun peš-šün*	*šoa-nun тил-лun moan-nun*	*nagra-nnun tuo-nnun peš-šyn karran-nun*							
	-(C)CUh		*murda-nuh syö-nyh pes-syh purran-nuh*					*anda-nuh murenda-nnuh soa-nnuh nous-suh paren-nuh*	*väzü-(n)nüh pur-ruh katkan-nuh*	*ruada-nuh juo-nnuh tul-luh uinon-nuh*	LdS: *nuužavu-nnuh*		
	-(C)CUT	*koada-nut šoa-nut män-nüt tarin-nut*			*nai-nut*		*kuiva-nnut nouš-šut*		*tul-lut*		*voi-nnud*		

	-CU				*тил-лu*						*anda-nu* *pez-nü* *salban-nu*	*kazva-nu* *küpsen-nü*	*osta-nu* *pez-nü* *ol-nu* *ruskon-nu*
	-n	*koada-n*		*tiedä-n*	*vaibu-n* *anda-n* *ruve-n*	*nagra-n* *karra-n*							
passive 1st participle	**-TA-vA**	*koa-tta-va* *šoa-da-va* *män-dä-vä* *tarit-ta-va*	*murre-tta-va* *syö-dä-vä* *pes-tä-vä* *purra-tta-va*	*pie-ttä-vä* *müö-dä-vä*	*juo-da-va* *šüö-dä-vä-t*	*nagre-tta-va* *tuo-da-va* *karrat-ta-va*	*lugie-tta-va* *šuvat-ta-va*	*anne-tta-va-n* *soa-da-va-n* *nosta-va-n* *paret-ta-va-n*	*tape-tta-va-kse*	*vuote-tta-va-n* *myö-dä-vä-n*			*müö-dä-vä-t*
	-TA-vU								*juo-da-vu*				
	-TA-U/v							*anne-ta-v* *soa-da-v* *nos-ta-v* *paret-ta-v*		*vuote-tta-u* *myö-dä-y*			*sano-ta-u*
passive 2nd participle	**-T-U**	*koa-ttu* *šoa-du* *män-dü* *tarit-tu*	*murre-ttu* *syö-dy* *pes-ty* *purra-ttu*	*šivo-ttu* *ommel-du* *peš-tü* *müö-dü* *hävit-tü*	*anne-ttu* *tuo-du* *тил-du* *moat-tu*	*nagre-ttu* *tuo-du* *peš-ty* *karrat-tu*	*ošše-ttu* *lugie-ttu* *tuo-du* *näh-ty*	*anne-ttu* *soa-du* *nos-tu* *paret-tu*	*kate-ttu* *voi-ttu*	*luaji-ttu* *ommel-tu* *men-dy* *juo-du*	*an-ttu* *pes-tü* *salbat-tu*	*ote-ttu*	*ote-ttu* *sua-du* *pes-tü* *leikat-tu*
	-h-U-V-(h)	*koada-hu-a/o* *taričče-hu-a/o*	*murda-hu-o*	*otta-hu-a*		*kado-huo-h* *tuo-huo-h*	*pala-huo-h* *ero-huo-h*	*anda-hu-u*	*otta-hu-a* *anda-hu-u*	*ištu-hu-u*			*proidi-hu-i*

Lexemes: *andua* / *andoa* / *antta* / *anta*, *aštuo*, *elädä*, *erota*, *hävitä*, *ištuo* / *istuda*, *itkie*, *jauhuo*, *juuva* / *juvva*, *kaduo*, *kazvata*, *karrata*, *katkata*, *kattua*, *koadoa*, *kuivata*, *kuunnella*, *kypsetä*, *kyzydä*, *lendeä*, *leikata*, *luadie*, *lugie*, *muata* / *moata*, *murdoa*, *murendoa*, *myyvä* / *myvvä* / *myödä*, *mennä* / *männä*, *nagrua*, *naija*, *nosta* /*nousša*, *n'ukkuo*, *nuužaududa*, *nähä*, *olda*, *ommella*, *oštja* / *ostada*, *ottua* / *ottai* / *ottada*, *pakota*, *palja*, *panna*, *pareta*, *peššä* / *pessä* / *pestä*, *pidiä*, *proidida*, *purra*, *purrata*, *ruadua* / *raadaa*, *ruskota*, *ruveta*, *salbata*, *sanoda*, *šiduo*, *šoaha* / *soaha* / *suaja* / *suada*, *šuvata*, *šyyvä* / *šyvvä*, *tarita*, *tiediä*, *tulla* / *tulda*, *tuuva* / *tuvva*, *uinota*, *vaibuo*, *vediä*, *voija* / *voida*, *vuottua*, *väzyö*.

Table 67. Participles in standard varieties of Karelian

		Bubr 64–78	Aht 79–82	Anis 134–143	ZaiK, 128–135, 174–186 / ZaiV 200–210	Mark 159–168 / Pyöl 127–137
active 1st participle	**-jA**	*anda-ja* *lugi-ja* *syö-jä* *muutteli-ja* *salbua-ja*	*soa-ja* *leikkoa-ja*	*sano-ja* *syö-jä* *tuli-ja*	*kirjutta-ja* *tuli-ja* *šiivuo-ja*	*kanda-ja-n* *tuo-ja-n* *käveli-jä-n* *katkua-ja-n*
	-i / -j		*otta-j* *meni-j*			*kanda-i* *käveli-i*
	-jU					*kanda-ju* *tuo-ju* *käveli-jü* *katkua-ju*
	-va		*otta-va(n)* *tule-va(n)* *leikkoa-va(n)*			
active 2nd participle	**-CUn**				*tul-lun* *tuo-nun* *šiivon-nun*	
	-(C)CUh		*otta-nuh* *hävitä-nnyh* *soa-nuh* *tul-luh* *leikan-nuh*			*anda-nuh* *kehitä-nnüh* *süö-nnüh* *pes-süh* *ukan-nuh*
	-CUt	*anda-nut* *luge-nut* *syö-nyt* *muuttel-lut* *salvan-nut*		*sano-nut* *syö-nyt* *tul-lut* *avan-nut*	*kirjutta-nut* *tul-lut* *šiivon-nut*	

	-n				*kirjutta-n* *tietä-n*	
passive 1st participle	**-TA-vA**	*anne-tta-va* *lugie-tta-va* *syö-dä-vä* *muutel-da-va* *salvat-ta-va*		*sano-tta-va* *syö-dä-vä* *tul-da-va*	*kirjute-tta-va* *tul-ta-va* *šiivot-ta-va*	*anne-tta-va-n* *rua-tta-va-n*
	-TA-vU					*anne-tta-vu* *juo-da-vu* *pur-ta-vu* *katkat-ta-vu*
	-TA-v		*ote-tta-v* *soa-da-v* *men-dä-v* *leikat-ta-v*			
passive 2nd participle	**-T-U**	*anne-ttu* *lugie-ttu* *syö-dy* *muutel-du* *salvat-tu*	*ote-ttu* *itkie-tty* *voi-du* *men-dy* *leikat-tu*	*sano-ttu* *syö-dy* *pan-du*	*kirjute-ttu* *tuo-tu* *tul-tu* *šiivot-tu*	*kate-ttu* *käskie-ttü* *tuo-du* *tul-du* *lükät-tü*
	-h-U-V	*anda-hu-o*	*otta-hu-u* *iške-hy-y*	*astu-hu-o*		

Lexemes: *andua*, *astuo*, *avata*, *hävitteä*, *iškie*, *itkie*, *juvva*, *kattua*, *kandua*, *katkata*, *kehittiä*, *kirjuttua*, *käskie*, *kävellä*, *leikata*, *lugie*, *lykätä*, *mennä*, *muutella*, *ottoa*, *panna*, *pestä*, *purta*, *ruadua*, *salvata*, *sanuo*, *šiivota*, *soaha*, *syyvä* / *syvvä*, *tietyä*, *tulla*, *tuuvva* / *tuvva*, *ukata*, *voija*.

Morphology: Uninflected words

Table 68. Adverbs in standard varieties of Karelian

	Aht 127–137	Anis 144–146	Zaik 110–111 / ZaiK 105 / ZaiV 218–220	Mark 184 / Pyöl 183
-čči / -či (prolative)	*loito-či*	*pello-či*	*kaiki-čči*	*peito-či*
-TA (partitive)	*enimyt-tä-h*		*etähyä-tä*	
-h (illative)	*harva-h*	*ravie-h*	*rutto-h*	*oigie-h*
-in / -i (instructive)	*jalla-i*	*hyv-in*	*ammui-n*	*hüv-in*
-kše(h) / -kši (translative)	*kahte-kse*	*si-ksi*	*harva-kšeh*	
-l (adessive-ablative) / **-ltA** (ablative)	*luja-l*	*äijäl*	*pitä-ltä*	
-lle(h) / -llA(h) (allative)	*lopu-lleh*	*uuve-lleh*	*paha-llah* *šeisuo-l'l'ah*	*paha-lleh*
-n (accusative)	*viiko-n*			
-nA(h) (essive)	*loitto-n*		*koko-nah*	*üksi-näh*
-neh (comitative)	*kaikki-neh*	*kaikki-neh*		
-SSA(h) / -s (inessive[-elative]) / **-StA(h)** (elative)	*jalla-s*	*ihastuksi-s*	*jäle-šša* *uuvve-stah*	*uvve-ssah*
-ttA(h) (abessive)	*humala-tta-h*	*kengä-ttä*		
-KAli	*ku-gali* *ylähä-kkäli*		*peito-kkali*	*tä-gäli* *loitomba-kkali*
-kkAh / -kkAi	*sellä-kkäh*		*viere-kkäh*	*vuoro-kkai*
-ldi		*kebie-ldi*		
-lei(ten)	*muga-lei* / *muga-leiten*			*muga-lei* / *muga-leiten*

-li	*paremba-li*			
-llen			*vähite-llen*	
-lloi / -llos	*mu-lloi* / *mu-llos*	*mu-lloi*		*mu-lloi* / *mu-llos*
-mite(n)	*käzi-miten*			*käzi-mite*
-ni	*ku-ni*			
-nne	*si-nne*	*tua-nne*		*si-nne*
-Sti	*luja-šti* / *luja-sti*	*kiirehe-sti*	*kipie-šti*	*tuhma-sti*
-te(n) / -ttoain / -ttajen	*parahi-ten* / *parahi-ttajen*	*kaksi-ttoain*		*parahi-te*
-tellen	*vuoro-tellen*			*vuozi-tellen*
-tUšti	*lähe-tyšti*			

Lexemes: *ammuin*, *enimyttäh*, *etähyätä*, *harvah* / *harvakšeh*, *humalattah*, *hyvin*, *ihastuksis*, *jallai*, *jallas*, *jäleššä*, *kahtekse*, *kaikičči*, *kaikkineh*, *kaksittoain*, *kebieldi*, *kengättä*, *kiirehesti*, *kipiešti*, *kokonah*, *kugali*, *kuni*, *käzimiten* / *käzimite*, *loitoči*, *loitombakkali*, *loitton*, *lopulleh*, *lujal*, *lujašti* / *lujasti*, *lähetyšti*, *mugalei* / *mugaleiten*, *mulloi* / *mullos*, *oigieh*, *pahallah* / *pahalleh*, *parahiten* / *parahite* / *parahittajen*, *parembali*, *peitoči* / *peitokkali*, *pelloči*, *pitältä*, *ravieh*, *ruttoh*, *šeisuol'lah*, *selläkkäh*, *siksi*, *sinne*, *tuhmasti*, *tuanne*, *tägäli*, *uuvelleh*, *uuvvestah* / *uvvestah*, *vierekkäh*, *viikon*, *vuorokkai*, *vuorotellen*, *vuozitellen*, *vähitellen*, *yksinäh*, *ylähäkkäli*, *äijäl*.

Table 69. Postpositions and prepositions in Karelian dialects

GenV 246–247	Rjag 164–168	Palm 72–74	Bel 69–71	Manž 76–78	GenA 185–186	RjagL 383–385	GenL 11–25, 31	VirtH 86–97	Bar 198–201	
	aigana (GEN)					*aigah* / *aigua* (GEN)			*aiga* (GEN)	during
alačči / *aličči* (GEN)					*alačči* (INE-ELA) *alačči* (INE-ELA)			*алачи* / *алуči* (GEN)	*alači*	go under smth
alla / *oa(l)la* *alda* *alla* / *oa(l)la* (GEN)	*alla* / *al* / *ala* / *ualla* *alda* *alla* / *al* / *ala* / *ualla* (GEN)	*алла* *алда* *алла* (GEN)	*alla* *alda* *alla* (GEN)	*ʒalla* *ʒalda* *ʒalla* (GEN)	*al* / *oal* *al* / *oal* *alle* / *ale* / *oale* (GEN)	*ual* / *aal* (genitive) *ual* / *aal* (GEN)			*al* *alpiäi* *alle* (GEN)	under from under to under
aloh (GEN)	*aloh* (GEN)	*алоh* (GEN)		*aloh* (GEN)	*aloh* (GEN)					during the course of
eičči (GEN)	*eičči* (GEN)	*eičči* (GEN)	*neičči* (GEN)	*eičči* (GEN)	*eičči* (GEN)			*ediči* / *ediže* (INE-ELA)		pass smth from the front
	ennen (PAR)		*ennen* (PAR) *ennen* (PAR)		*enne* / *ennen* (PAR)	*ennen* / *enne* (PAR)				before
iellä (GEN, PAR)		*iellä* *ieldä päin* (PAR)			*iel* (GEN, ADE)	*iel* (PAR)			*edel* (PAR)	before
ieššä *ieštä* *edeh* (GEN)				*iessä* *iestä* (GEN)	*ies* / *eis* *ies* / *eis* *edeh* (GEN)	*ies* / *iez* *ies* / *iez* (GEN)			*edes* *edes* *edeh* (GEN)	in front of from in front of to front of
			jytyš (GEN)					*dütte* (GEN)	*nütüi* (GEN)	kind of
jäleštä / *jälešti* / *jällesti* (GEN) *jälgeh* (GEN, ADE)	 *jälgeh* / *jälgee* (GEN)	*jällešti* (ADE) *jälgeh* (PAR)		*jällesti* (ADE)	*jälles* / *jällel* (PAR) *jälgeh* (GEN)	*jälles* / *dälles* (PAR)	 *dälgei* / *jälgeh* (GEN)	 *dälgei*	*dälges* (PAR) *dälgeh*	after smth

kautta / *kautti* (GEN)		*kautte* (GEN)	*kautti* (GEN)	*kautti* (GEN)	*kauti* / *kautti* (GEN)		*kavati* (GEN)	*kavati* / *kavuti* / *kauti* (GEN)	*kavati* (GEN)	through
kera / *-gera* / *kerä* / *keroa* / *keralla* (GEN)	(GEN) + *-ŋke* = COM	(GEN) + *-ŋke* / *ŋkeла* / *ŋkelä* = COM			*kera* / *kere* / *kerä* / *ker* / *kel* (GEN)	*kel* / *ke* / *ker* (GEN)	*kerä* (GEN)	(genitive) + *-ŋke* = COM	(GEN) + *-ke* / *-ker* = COM	with
keššičči (GEN)	*keški* (PAR)				*keske* / *kesken* (GEN)	*kesken* (PAR)		*keskučč* (GEN)		in the middle of, amongst
					keske / *kesken* (PAR)					
		keššellä (PAR)				*keskel* (GEN)			*keskel* *keskele* (PAR)	
ke{šš/ž}ešša *ke{šš/ž}eštä* *keškeh* (GEN)	*kežeštä* *keškee* (GEN)			*kessessä* (GEN)	*keskes* *keskes* *keskeh* (GEN)	*keskes* *keskes* *keskeh* (GEN)		*keskei* (GEN)	*keskes* *keskes* *keskeh* (GEN)	
	kež / *keža* / *keš* / *keššä* (GEN)	*keššä* (GEN)								
kohašta *kohtah* (GEN)		*kohašša* *kohtah* (ADE)	*kohtah* (GEN)	*kohašša* *kohtah* (ILL)					*kohtas* *kohtas*	opposite to, from, towards
korvašša *korvašta* *korvah* (GEN)				*korvalla* (GEN)		*korvaz* / *korvas* (GEN)			*korvas* *korvas* (GEN)	at, by, next to from to
kylgeh (ELA)			*kylgeh* (GEN)							to the side
kylličči / *kyličči* (ELA)								*kylgiči* (INE-ELA)		go past
luona *luoda* / *luonda* *luoho* / *luokši* (GEN)	*luona* *luo* / *luoh* (GEN)	(GEN) + *-(л)лuo* ~ *-(l)lüe* = APPR	*luona* *luoda* *luoh* (GEN)	*luoh* (GEN)	(GEN) + *-luo* ~ *-lüö* / *-nuo* ~ *-nüö* = APPR	(GEN) + *-luo* (*n* > *l*) = APPR	(GEN) + *-lo* / *-lu* = APPR	(GEN) + *-ллu* / *-ллuste* / *-ннu* / *-ннuste* / *-нno* = APPR	*luo* (GEN)	at, by from towards
		läbi (ELA)		*läbi* (ELA)	*läbi* (INE-ELA)	*läbi* (INE-ELA)			*läbü* (INE-ELA)	through
					läbi (INE-ELA)	*läbi* (INE-ELA)			*läbü* (INE-ELA)	

Table 69 continued

GenV 246–247	Rjag 164–168	Palm 72–74	Bel 69–71	Manž 76–78	GenA 185–186	RjagL 383–385	GenL 11–25, 31	VirtH 86–97	Bar 198–201	
lähičči (GEN)										go closely past
lähillä *lähildä* (GEN)					*lähil* (GEN)	*lähil* (GEN)				near
lässä *läštä* (GEN)		*läššä* (GEN)			*läs* (GEN)				*läs* (PART)	
müöten / *müöte* (PART)	*myö* / *myöt'* / *myötin* / *myöte* / *myöti* (PAR)	*müö* (PAR)	*myöt'* (PAR)	*myöt* / *myöten* (PAR)	*müö* / *müöte* / *müöti* (PAR)	*müö* / *müöte* (PAR)		*müöi* (PAR) (PAR) + *-müöi* = PROL	*müö* / *müöte* (PART) *müöd* (ILL)	along
myyväššä *myödäh* (GEN)					*myödäh* (GEN)					(go) with smth or sb
niskah (GEN)					*niškoih* / *niškoi* (ELA)					for
nähen / *nähe* (ILL)			*näh* (ILL)	*näh* (ILL)	*nähte* (ILL)				*nähte* (ILL)	topic marker
peräčči (GEN)								*peräči*		behind, from behind
					peräs (GEN)	*peräz* (GEN)			*peräs* (GEN)	after
peälličči / *peäličči* (GEN)	*pieliči* / *pieličči* (ELA)	*pööličči* (ELA)	*piäličči* (ELA)		*peäličči* (INE-ELA)	*piäličči* (INE-ELA)		*piäliči* (INE-ELA)	*piäliči* (GEN, INE-ELA)	go over
		pööličči (ELA)			*peäličči* (INE-ELA)	*piäličči* (INE-ELA)		*piäliči* (INE-ELA)	*piäliči* (INE-ELA)	
peällä *peäldä* *peällä* (GEN)	*piellä* *piellä* (GEN)	*pöällä* *pööldä* *pöällä* (GEN)	*piällä* *piäldä* *piällä* (GEN)	*piällä* *piäldä* *piällä* (GEN)	*peäl* / *peä* *peäl* / *peä* *peäle* (GEN, ADE)	*piäl* / *peel* *piäl* / *peel* (GEN)		*piäɲ* *piäɲ* *piäɲe* (GEN)	*piäl* *piäl* *piäle* (GEN)	on top of from top of to top of
	pieššä (GEN)		*piäššä* *piäštä* *piäh* (GEN)			*peäz* *peäz* (GEN)			*piäs* *piäs* *piäh* (GEN)	at from to (of a distance)
pitin (PAR)					*pitkin* (PAR)	*pitkin* (PAR)				along

poikki (GEN, ELA)	*poikki* (ELA)	*poikki* (PAR, ELA)	*poikki* (ELA)		*poikki* (INE-ELA)	*poikki* (INE-ELA)			*poikki*	across
				puoleh (GEN)						toward
		kahen puolen (PAR)								both sides
		toizella puo (PAR)		*sillä puolie* (PAR)						on the other side
puoličči (GEN)									*puolin* (ILL)	to the side of sb or smth
	päin / *pää* / *päi* (ELA, ILL, ABL, ESS)	*päin* (ILL)	*päit* (INE, ELA, ILL)	*päin* (ILL)		(INE, ADE) + *-päi* = ELA, ABL	(INE) + *-piäi* = ELA	(INE, ADE) + *-piäi* = ELA, ABL	*piäi* (INE, ILL, ABL)	on top of from the top of
reunačči (GEN)										past smth
reunašša *reunašta* *reunah* (GEN)			*reunašta* (ABL)							at the side of from the side of to the side of
rinnalla (GEN)					*rinnal* (GEN)				*rindal* *rindale* (GEN)	at the side of to the side of
šeämeššä *šeämeštä* *šeämeh* (GEN)			*šiämeštä* (ABL) *šiämeh* (ADE)	*siämessä* (GEN)	*südämes* *südämes* *südämeh* (GEN)			*šüdämiči* (GEN)	*sydämes* *sydämes*	inside from inside to inside
šijah (GEN)			*šijah* (GEN)		*siah* (GEN)				*sias* *siäh* (GEN)	instead
		šiiričči (ELA) *šiiričči* (ELA)	*šiiričči* (ELA)	*sirričči* (ELA)	*siiričči* (ELA)			*siiriči*	*siiriči* (INE-ELA) *siiriči* (INE-ELA)	past
	šua / *šuať* / *šuati* / *šaute* (ILL, ADE)	*šoa* (ILL)	*šuat* (INE, ILL)	*šjat* (ILL)		(ILL) + *-sah* (*h* > *s*) = TERM *sah* (ILL)		*suai* (ILL)	*suai* (INE-ELA, ILL, ALL)	since; until
		šüin (ELA)		*syit* (ELA)						because of

Table 69 continued

GenV 246–247	Rjag 164–168	Palm 72–74	Bel 69–71	Manž 76–78	GenA 185–186	RjagL 383–385	GenL 11–25, 31	VirtH 86–97	Bar 198–201	
tagana / *tagoana* *tagoada* / *tagoanda* *toakš(i)* / *toa* / *tagoaksi* (GEN)	*tagana* *tagah* (GEN)	*tagoana* *tagoada* *tagoah* / *tagoakši* (GEN)	*taguana* *taguada* *taguah* (GEN)	*tagianda* *tagiah* (GEN)	*taga* *tagoa* *toakse* (GEN)		*taga* (GEN)	*tagaze* (GEN)	*taga* (GEN)	behind from behind to behind
toačči / *tavutta* / *toatettu* (GEN)			*tuačči* (GEN)	*ťiačči* / *tokkja* (GEN)	*toači* / *toačči* (GEN, INE)		*tagutta* (GEN)	*tagači* / *taguči* (INE-ELA)	*tagači*	go past from behind
tähe / *täh* (GEN)	*täh* / *tää* (GEN)	*täh* (GEN)			*tähte* / *täh* / *tähdäh* (GEN)	*täh* (GEN)		*-tiäi* (GEN)	*tiäh* (GEN)	for sake of smth
varoin (ILL, TRA)	*varoin* (PAR, ADE, TRA)	*varoin* (ILL)	*varoin* (ILL, ADE, TRA)	*varoin* (ILL)	Srv: *varoin* (ILL)			*varuoi* (ILL, ALL)		for smth
vaššašša (GEN) *vaštah* (GEN, ADE)			*vaštah* (ADE)	*vašta* (PAR)	*vastah* (GEN, ADE)		*vastah* (ILL, ALL)	*vastaлe*		against
vaššen / *vašše* / *vaš* (PAR)	*vaš* / *vaše* / *vašt* (PAR)	*vaš* (PAR)	*vaš* (PAR)	*vaš* (PAR)	*vaste* (PAR)			*vaste* (PAR)	*vaste* (PAR) *vas(t)* (ILL)	
viereššä / *vierošša* *viereštä* *viereh* (GEN)									*vieres* *vieres* (GEN)	next to from side of to side of
vuoh (GEN)		*vuošša* (GEN)		*vuoh* (GEN)	*vuo* (GEN)			*-vuohe* (GEN)	*vuoh* (GEN)	with help of
KrV: *välissä* *välistä* *välih* (GEN)	*välih* (GEN)					*välih* (GEN)				between from between to between
	ülči (GEN)	*ülči* (GEN)	*ylči* (GEN, ELA)		*üličči* (INE-ELA)			*üläči* / *üliči*	*üliči*	go past from above

ümbäri (ELA)	*ümbäri* (GEN, ELA)	*ümbäri* (GEN, ELA)		*ymbäri* (ELA)	*ümbäri* (INE-ELA)	*ümbäri* (ILL)			*ümbäri* (INE-ELA)	round
ümbäri (ELA)		*ümbäri* (PAR, ELA)				*ümbäri* (INE-ELA)			*ümbäri* (INE-ELA)	

Table 70. Postpositions and prepositions in standard varieties of Karelian[173]

Bubr 25	Aht 132–137	Anis 148–151	ZaiK 135–137 / ZaiV 220–222	Mark 185–189 / Pyöl 141–146	
	alači (ELA)	*alači* (GEN, INE-ELA)	*allačči* / *aličči* (GEN, ELA)	*alači* (GEN)	go past from beneath
	alači (ELA)	*alači* (INE-ELA)		*alači* (ELA)	
	al (GEN) *al päi* (GEN, ELA)	*al* (GEN)	*alla* *alta* (GEN)	*al* *alpäi* *alle* (GEN)	under from under
	al (GEN) *al päi* (GEN, ELA)				
	eičči (ELA)		*eičči* (GEN)		go past from the front
	eičči (ELA)				
ennen (PAR)	*ennen* (PAR)		*ennen* (partitive)	*enne* (PAR)	before
	halgi (GEN, ELA)			*halgi* (GEN)	through
	eis (GEN) *edeh* (ADE-ABL)	*ies* (GEN, ADE)	*ieššä* *ieštä* *eteh* (GEN)	*ies* *edeh* (GEN)	in front of from front of to front of
	eis (GEN, ADE-ALL) *edeh* (GEN)				
	ilmai (ABE)		*ilman* (PAR)	*ilmai* (PAR)	without

[173] Normative grammars also give individual examples of the following postpositions and prepositions: *agjas* + PAR, e.g. *eziagjas*, *jälgiagjas; azemeči* + ELA (preposition / postposition); *allul* + PAR; GEN + *aloh; čurači* + ELA; (preposition / postposition); *čura|s* / *-h* + PAR; *ennettäväh* + PAR; *eri* + ELA, ADE-ALL (preposition / postposition); *eäreh* + ELA, ADE-ALL (preposition / postposition); *iel* + PAR, ELA, ADE-ALL (preposition / postposition); *ielleh* + ELA; GEN + *jälgie; jällel* + PAR (preposition), GEN (postposition); *kesken* + PAR; *keskenäh* + ADE-ALL (preposition / postposition); GEN + *konie|s/h;* GEN + *korvas; kylliči* + ELA (preposition / postposition); GEN + *käis* / *käil; mugah* + GEN (preposition / postposition); GEN + *nenäs; peril* / *peräl* + ELA, ADE-ALL (preposition), GEN (postposition); *peälettäväs/h* + GEN, PART; *piduzin* + ILL; GEN + *piele|s* / *-h; puoleh* + GEN; (*ala-/ylä-*)*puoliči* + ELA (preposition / postposition); *rannoiči* + ELA (preposition / postposition); GEN + *reunas; rinnoiči* + ELA (preposition / postposition); *seämiči* / *sydämiči* + ELA (preposition / postposition); *sydämel* + GEN (preposition / postposition); GEN + *taza|h* / *-l;* GEN + *ties;* GEN + *tokkah; tyves* + GEN (preposition / postposition); *tyviči* + ELA (preposition / postposition); *ulgon, ullos, ulgonpäi* + PAR; *ulloči* + ELA (preposition / postposition); *ullombači* + ELA (preposition / postposition); *vallal* + GEN (postposition); *varal* + GEN; *vastakavah* + ADE-ALL; *vastal* + GEN, ADE-ALL (preposition / postposition); GEN + *vuo* ~ *vuoh; GEN* + *väis; väil; vägeh; väliči* + ELA (preposition / postposition); *välil* + GEN (preposition / postposition); GEN + *aigua; GEN* + *ajakse; GEN* + *jütüi* / *jüttüöh; GEN* + *mail; GEN* + *sijas; sijah* (Mark); *iel* + PAR (preposition / postposition), GEN (postposition); GEN + *täh* (Pyöl).

	jälles (GEN, PAR, ADE-ALL) *jälgeh* (GEN)	*jälles* (PAR, ADE) *jälgeh* (GEN)	*jäleššä* *jälkeh* (GEN)	*jälles* (ALL) *jälgeh* (GEN)	after
	jälles (GEN, ADE-ALL, PAR) *jälgeh* (PAR)		*jälkeh* (GEN)	*jälles* *jälgeh* (PAR)	
	kauti / *kavati* (GEN)	*kauti* (GEN)		*kauti* (GEN)	via
kera (GEN)	*ker* / *keral* (NOM, GEN)	*ke* (GEN)	*kera* (GEN)		with sb
	keral (NOM, GEN)				
	keskel (GEN)	*keskel* (GEN)	*kešellä* (GEN)	*keskel* (GEN)	amongst
	keskel (PAR)	*keskel* (PAR)			
	keskes (GEN) *keskeh* (GEN, ADE-ALL)	*keskes* (GEN)	*keššeššä* *keškeh* (GEN)	*keskes* *keskeh* (GEN)	amongst to amongst
	keskes (GEN, PAR, ADE-ALL) *keskeh* (GEN, ADE-ALL)				
	keski (GEN) *keskiči* (ELA)	*keski* (GEN, ADE) *keskiči* (PAR)			go through
	keskiči (ELA)				
	kohtas (ELA)		*kohašša* (GEN)	*kohtas* (GEN)	opposite
	kohtah (GEN)		*kohtah* (GEN)		towards
	kohti (ILL, ELA, GEN)		*kohti* (PAR) *kohen*	*kohti* (PAR)	
	kohti (ILL, ELA, PAR)				
luona *luoda* *luo* (GEN)	 *luo* (GEN)	*luona* *luoda* *luo* (GEN)	*luona* *luota* *luokše* / *luo* (GEN)	 *luo* / *luokse* (GEN)	at, by from to
	läbi (ELA)	*läbi* (INE-ELA)	*läpi* (GEN)	*läbi* (INE-ELA)	through

Table 70 continued

Bubr 25	Aht 132–137	Anis 148–151	ZaiK 135–137 / ZaiV 220–222	Mark 185–189 / Pyöl 141–146	
	läbi (ELA)	*läbi* (INE-ELA)	*läpi* (GEN)	*läbi* (INE-ELA)	through
	läbi (ELA)	*läbi* (INE-ELA)	*läpi* (GEN) *läpičči* (ELA)	*läbi* (GEN, ELA)	
			läpi (GEN)		
	lähiči (ELA)		*lähičči* (PAR)		go closely past
	lähiči (ELA)				
	lähil (GEN, PAR, ELA)			*lähäl* (PAR)	near
	lähil (GEN)				
	läs (GEN, PAR)	*läs* (partitive)	*läššä* (GEN)		
	läs (PAR)				
	myvväs *myödäh* (GEN)		*myötäh* (PAR)	*müödäh* (PAR)	(go) with smth or sb
myöte / *myö* (PAR)	*myöte* / *myö* (PAR)	*myö* / *myöte* (PAR)	*myöten* (PAR)	*müö* / *müöte* (PAR)	
	niškoi (ILL)			*niškoi* (ILL)	for
nähte / *näh* (ILL)	*näh* / *nähte* (ILL)	*näh* (ILL)		*näh* / *nähte* (ILL)	topic marker
	paičče (ELA)			*paiči* (PAR)	besides
	paičče (ELA)				
	pereä (GEN)	*periä* (GEN)		*periä* (GEN)	due to
	peräs *peräh* (GEN)	*peräs* (GEN)	*peräššä* *peräštä* *peräh* (GEN)	*peräs* *peräh* (GEN)	after, behind from behind to behind
	peräs *peräh* (PAR, ADE-ALL)				
	pitkin (PAR, ILL)	*pitkin* (PAR)	*pitin* (PAR)	*pitkin* (PAR)	along
			pitin (PAR)	pitkin (PAR)	
	piäl(i)či (ELA)	*piäliči* (INE-ELA)	*piälličči* (GEN)	*piäliči* (INE-ELA)	go over
	piäl(i)či (ELA)	*piäliči* (INE-ELA)	*piälličči* (ELA)	*piäliči* (ELA)	

	peäl (GEN, ADE-ALL)	*piäl* (GEN)	*piällä* *piältä* (GEN)	*piäl* *piäle* (GEN)	on top of from top of to top of
	peäl (GEN, PAR, ELA, ADE-ALL)			*piäl* (GEN)	
	peäs *peäh* (GEN)		*piäššä* *piäštä* *piäh* (GEN)	*piäs* *piäh* (GEN)	at from to (of distance)
poikki (ELA)	*poikki* (illative, ELA) *poikin* / *poikelleh* / *poikkizin* (ILL)	*poikki* (INE-ELA)	*poikki* (ELA)	*poikki* (INE-ELA)	across
		poikki (INE-ELA) *poikin* (PAR)	*poikki* (genitive, ELA)	*poikki* (GEN, ELA)	
	puoles *puoleh* (GEN)	*puoles* (GEN)	*puolešta* (GEN)		for, instead of
	päi (ILL, ELA)	*päi* (INE-ELA, ILL, ADE-ABL)	*päin* (ELA, ILL)	*päi* / *päin* (ILL)	from
	päi / *päin* (ILL)				
	rinnal (GEN)		*rinnalla* *rinnalta* (GEN)	*rinnal* *rinnale* (GEN)	at the side of from the side of to the side of
	rinnal (ADE-ALL)				
	siiriči (ELA)	*siiriči* (INE-ELA)		*siiriči* (INE-ELA)	go past
	siiriči (ELA)			*siiriči* (ELA)	
	seämes / *sydämes* *seämeh* / *sydämeh* (GEN)		*šiämeššä* *šiämeštä* *šiämeh* (GEN)	*südämes* *südämeh* (GEN)	inside from inside to inside
	seämes / *sydämes* *seämeh* / *sydämeh* (GEN)				
suate / *sua* (ILL)	*sah* / *sai* (ILL)	*sah* (ILL)	*šuati* / *šuate* / *šuaten* (ILL, ELA)	*sah* / *suate* (ILL, ALL)	until; since
	tagan / *toan* *toakse* (GEN)	*tagana* *tagua* *tuaksi* (GEN)	*takuana* *takua* / *takuata* (GEN)	*tagan* / *tuan* *tuakse* (GEN)	behind from behind to behind
	tagan / *toan* (PAR, ADE-ALL) *toakse* (GEN, PAR)				

Table 70 continued

	tilas / *tilal* *tilah* (GEN)		*tilalla* *tilašta* (GEN)	*tilas* *tilah* (GEN)	instead of
	toači (ELA)		*takie* (GEN)	*tuači* (INE-ELA)	instead of
	toači (ELA)				
	täh (GEN)		*täh* / *tähen* (GEN)	*täh* (GEN)	for
	vajai (PAR)		*vailla* (PAR)		without
	valdoa			*valdua* (GEN)	because of
	varas *varah* (GEN)			*varah* (GEN)	in case of
varoin (ADE-ALL)	*varoin* (ILL)	*varoin* (PAR)	*varoin* (PAR, ADE-ALL)	*varoin* (ILL)	for
	vastas (ADE-ALL) *vastah* (GEN)	*vastas* (GEN, ADE)	*vaštah* (ADE-ALL)		against, towards
	vastas (ADE-ALL) *vastah* (PAR, ADE-ALL)				
vaste / *vas* (PAR)	*vaste* / *vas* (PAR)	*vaste* (PAR)	*vaššen* (PAR)	*vaste* (PAR)	
	vaste / *vas* (PAR)				
			viereššä *viereštä* *viereh* (GEN)	*vieres* *viereh* (GEN)	at the side of from the side of to the side of
	yliči (ELA, GEN)		*yllä* *yličči* (GEN)	*üliči* (GEN)	go over
	yliči (ELA, GEN)			*üliči* (GEN, PAR)	
	ymbäri (ELA)		*ympäri* / *ympärillä* (GEN)	*ümbäri* (GEN, INE-ELA)	round

Table 71. Conjunctions in Karelian dialects[174]

	GenV 247	GenS 233	Rjag 168–172	Palm 75–77	Manž 76–78	GenA 186–187	RjagL 386–389	GenL 31	Bar 198–201
coordinating conjunctions	*a*	*a*	*a*	*a*	*a*	*a*	*a*	*a*	*a*
			ali	*ali*	*ali*				
	da		*da*	*da*	*da*	*da*	*da*	*da*	*da*
	dai		*da ʲi*			*da-i*	*dai*	*dai*	*dai*
	ei-go … eigo						*eigo ... eigo*		
	KrV: *eli*			*ili* *ili ... ili*	*ili*	*ili*			*ili*
	ga	*ga* / *ka*	*ka*			*ga*	*ga*	*ka*	*ka*
	-go … -go			*-go ... ali* / *-go ... ili*					
	hož / *hot* / *hoťi*	*hot*	*hoťi*	*hoťi*	*hoťi*	*hoz* / *hot*	*hos*		
	i	*i*	*i*	*i*	*i*	*i*	*i*	*i*	*i*
		libo	*libo*	*libo* *(… libo)*	*libo*	*libo*	*libo*		*libo*
			ni … ni	*ni … ni*	*ni ... ni*		*ni ... ni*		
			ni	*niin*	*nin*				
			niin že						
			no	*no*	*no*		*no*		*no*
	vain / *vai*	*vai*	*vain*	*vain*		*vai*	*vai*		*vai*
	vain-ba					*vambo*			

[174] Descriptive grammars also give the following examples of coordinating and subordinating conjunctions: *a ei što* (Rjag), *baičči* (GenV), *čim* (Palm), *da ni* (GenV), *ei ɲi* (Rjag), *ehki* (RjagL), *ga ... ga sit* (RjagL), *hoz ... ku* (RjagL), *hoťi ... i* (Bar), *hoťi ... ni* (Rjag), *hoťi-i-jo* (GenV), *ilmaigo* (RjagL), *ja* (GenV), *jotta ~ jotto* (GenV), *konža ... ni* (Rjag), *ku ... ni* (Rjag), (*kos*) *ku ... si|t ~ d* (RjagL), *kuin ... ku* (Rjag), *kuin rutto ~ kuin terväh* (GenV), *kuin ... vain* (Manž), *niin kuin* (Manž), *sem perii ~ sidä jälgii* (RjagL), *sikse* (Bar), *što ku ... ni* (Rjag), *zato* (Manž), *taigo* (RjagL), *toužo* (Manž), *täyvelläh ~ yhelläh* (GenV), *vikse* (RjagL), *äski* (RjagL). Some of the given conjunctions are, in fact, adverbs, such as *ilmaigo*, *toužo*, *vikse.*

Table 71 continued

	GenV 247	GenS 233	Rjag 168–172	Palm 75–77	Manž 76–78	GenA 186–187	RjagL 386–389	GenL 31	Bar 198–201
subordinating conjunctions	*anna / ana*				*anna* *olgah*	*anna*			
	budto / *buitto /* *buitto kuin*				*budto*	*buitto-kui /* *vuitto-kui*			
						ei-ka		*ei-ka*	*eika*
			jesli	*jesli / jezli*	*jesli* *jesli ... to*				*jesli*
							ka ku		*kaku*
	konža / *konža kuin*		*kooža*	*konža /* *konže*	*konže*	*konzu*	*konzu*	*konz*	*kous*
	kuin		*kuin / ku*	*kuin*	*kuin*	*kuin / kui /* *ku*	*ku* *kos ku*	*kui / ku*	*ku*
							ku ... ga		*ku ... ka*
	kuni		*kuni*	*kuni /* *kuńo* *kuni ... šini*	*kuni* *kuni ... sini*	*kuni* *sini ... kuni*	*kuni ... ni*	*(šini …)* *kuni*	*kuni*
	kuni ei					*kuni en /* *ed / ei*	*kuń ei*	*kuni ei*	
				žentäh	*sentän*	*sen-däh /* *sen-täh*	*sentäh*	*sendäh*	
			potomu što	*žentäh …* *što /* *potomu što*					*sentäh što*
	što	*što*	*što*	*što*	*što*	*što*			*što*
			štobi	*štobi*	*štobi*	*što-bi*	*štobi*	*štobi*	*štobi*

Table 72. Conjunctions in standard varieties of Karelian[175]

	Bubr 25	Aht 137–138	Anis 151–152	ZaiK 137–139 / ZaiV 223–225	Mark 190–192 / Pyöl 147–149	
coordinating conjunctions	*a*	*a*	*a*	*a*	*a*	but
		ga			*ga*	but
		da	*da*	*ta*	*da*	and
		dai		*tai*		and also
		eiga			*eiga*	lest
		ga		*ka*	*ga*	but
	i	*i*	*i*	*i*	*i*	and
			ili	*ili / eli / elikkä* *eli ... eli / ili ... ili*		or
		ilmaigo				that explains why
		libo *libo ... libo*	*libo*		*libo*	or
		ni / da ni			*ni*	neither; nor
	no		*no*		*no*	but
		sendäh / sentäh	*sendäh*			that is why
		vai	*vai*	*vai*	*vai*	or; but
				vaikka	*vaiku*	but
				vain		only; but

[175] Normative grammars also give the following examples of conjunctions: Coordinating conjunctions: *-go … -go / iče … iče / se … se / sego … sego; ammui*(*gi*) */ paičče*(*gi*) */ älämištö / älävirka; iboi; vieboi / da vie; taigo; taigo … taigo*; *abo / paičče; g' en / k' en / toko en; yhtä ... vie en; toizelleh; a toizelleh; ielleh / iče / tävvelleh / yhtelleh / ykskai; sidäjälgie / sidäpereä / senperäs / sikse / äskihäi / äski … -gi; sidämyö; sid; kui; näid / tijjäd* (Aht); *muga; tože; zato;* (Anis), *sego; taigo* (Mark). Subordinating conjunctions: *seku / kai; anna / ehki; ann' en / ehk' en / äsk' en; kerran ~ kui … ga / mikse / ilmaigo … gu / sendäh … ku ~ sidä … ku / sikse … ku; miks' en; konza … konza / kos … kos / sid ... sid; kuiterväh / kuiruttoh / votavai; sikse kuni / sissah kuni; kuni … ga / kuni ... ennen / kun'en; kuni … sini; kos … sid / kos … sid äski; vai; vai en; iče; ažnoga / olgah; onhaikui / toivod; mikui; migäli; jogo / vaigo / vikse / viego / tottago* (Aht); *mindäh* (Anis); *ennen kun; ni jotta; ni kun; niin kuin* (ZaiK); *ga ku; ku vai; rounoku* (Mark); *buiteku* (Pyöl).

Table 72 continued

	Bubr 25	Aht 137–138	Anis 151–152	ZaiK 137–139 / ZaiV 223–225	Mark 190–192 / Pyöl 147–149	
subordinating conjunctions		*ga*			*ga*	that
		hos	*hot'*		*hos* / *hot*	although; even if
					ilmaigo	that explains why
			jesli			if
				još		if
		jotta		*jotta*		that
		konza / *kos*	*konza*	*konša*		when
		kui / *ku*	*kui* / *ku*	*kuin* / *kun*	*kui* / *ku* / *gu*	how; that; if
		kuni	*kuni* *kuni ... sini*	*kuni*	*kuni*	until
				ni		(so) that
			sendäh		*sendäh gu* / *ku*	that is why
			što		*što*	that
			štobi			that
		äski			*äski*	that is why

Table 73. Particles in Karelian dialects[176]

GenV[177] 202–206, 247	GenS 233	Rjag 172–177	Palm 71	Manž 81	GenA 157–159, 185–187	RjagL 379–383	Bar 133–136, 204	
anna / *ana*		*anna*		*anna*	*anna*	*anna*		forms an optative with the present indicative, imperfect, conditional, and imperative
-ba		*-ba* / *-bah*		*-bah* / *-bi̯ah*	*-bo*	*-bo* ~ *-bö*	*-bo*	emphatic
		bi			*-bi*			emphatic
		budi						in repeating one's or sb else's words or thoughts
		buit'						often with *kuin*: as though
budto / *buitto*					*buitto* / *vuitto*	*butto*		often with *kuin*: as though
	-gi / *-ki*	*-gi*			*-gi* / *-ki*		*-gi*	emphatic; also; even, at least
-go	*-go* ~ *-gö* *-ko* ~ *kö*	*-go*		*go*	*-go*	*-go*	*-go*	interrogative particle
						da		and
					-hai ~ *-häi*	*-hai* ~ *-häi*	*-häi*	emphatic
hož		*hoš*	*hoš*		*hoz, hos-*	*hoz*		although; even if

[176] Descriptive grammars also give the following examples of particles: a mild curse *kehveli* 'damn it', *raukku* 'why on earth; dear me' (RjagL).

[177] Particles come from a list of indefinite pronouns and conjunctions given by Genetz in his descriptions of various Karelian dialects.

Table 73 continued

GenV 202–206, 247	GenS 233	Rjag 172–177	Palm 71	Manž 81	GenA 157–159, 185–187	RjagL 379–383	Bar 133–136, 204	
hot / *hot-*		*hoť* / *hoď*	*hoť*		*hot*	*hoď*		although; even if
		ei		*ei*		*ei, ei-*		no
-i		*i*	*i*		*-i*	*i*		emphatic
		jo	*jo*					already; in negations: anymore; emphatic; sure
ka ~ kä / *ga*	*-ka ~ -kä*			*ka*	*-ka* / *ga*	*ka*		at the beginning of a sentence, often when answering a question: well, you see
						kai		even
-kačo / *-kajo*		*kačo*			*-kačot*	*kačo*		see, well
		-kko ~ -kkö		*-kka ~ -kkä*				emphatic
		kuda		*kuda-*		*kuda-*		-ever
						la		in repeating one's or sb else's thoughts: I / he/she said / thought
						mentie		who knows
		možot / *možot buť*						perhaps
						muga		in that way
				neušto				really

		ni				*ni-* / *ni*	*ni* / *ni-*	no
-ni		*nibuiť*					*-ni*	whichever
		niin						sure, probably
						näikö / *näigö*	*näget* / *näge*	see
				-olgah / *-ollou*		*ollou* / *olloo*		in structures of hedging or concession
						onnuako		expresses potentiality or conjecture: perhaps; in negative forms expresses doubt: probably not; still
						parahite		just enough; to a reasonable degree
						pošti		almost
		praada						true
		puuttu				*puuttuu*		haphazardly
		raz		*razve*				as if; perhaps
					-s / *-z*		*s*	de-emphatic
		že	*že*	*že*	*-že* / *-žö*	*se*	*že*	emphatic; very same
-taho					*-tahto*	*tahto*	*-tahto*	-ever
		taki						surely, perhaps, still

Table 73 continued

GenV 202–206, 247	GenS 233	Rjag 172–177	Palm 71	Manž 81	GenA 157–159, 185–187	RjagL 379–383	Bar 133–136, 204	
		to		*-to*		*-to*		-ever
						točno		definitely
		toko				*toko*		denotes repetition: again; also without particular meaning
		tozie				*tozi*		very
vain / *vai*		*vain*	*vain*		*vai*	*vai*		only
		vet' / *ved'*	*vet'*	*ved'*		*vet*		emphatic; see; perhaps; surely (not)
		vielä i						still; even
						vähän		probably not
		äššen		*ässen*				very

Table 74. Particles in standard varieties of Karelian[178]

Aht 70, 132	Anis 100, 152–153	Zaik 99–100 / ZaiK 140 / ZaiV 226–227	Mark 192–193 / Pyöl 149–150	
	anna			forms an optative with the indicative present, imperfect, conditional, and imperative
-bo	*-bo*		*-bo*	emphatic
	daže			even
		epä-		un-
	ga	*ka*		at the beginning of a sentence, often when answering a question: well, you see
-gi	*-gi*	*-ki*	*-gi*	emphatic; also; even, at least
-go	*-go*	*-ko ~ -kö*	*-go*	interrogative particle
	-gu			than, like
-hai ~ -häi		*-han ~ -hän*	*-häi*	emphatic
hos-		*hos / hot'*		although; if; even if
-ii				emphatic
		jo		already; in negations: anymore; emphatic; even, still; sure
-kačot				-ever
		-kana ~ -känä		emphatic (negation)
	kuda-		*kuda-*	-ever
		kyllä		expresses concession or emphasises a claim
	-libo			-ever
-liene	*-lienöy*	*-lienöy*	*-lienne*	forms indefinite compounds with interrogative pronouns or interrogative adverbs; -ever
		muka		in that way
	neušto			really
	neuželi			really
-ni	*-ni / ni*	*ni-*	*ni-*	emphatic particle in negations; (not) even

[178] Supplemented with data in chapters on indefinite pronouns.

Table 74 continued

Aht 70, 132	Anis 100, 152–153	Zaik 99–100 / ZaiK 140 / ZaiV 226–227	Mark 192–193 / Pyöl 149–150	
		-nih		-ever
		niin		yes, in that way
		no		well
		no ni		well then
-ollou	*-ollou*			-ever
		onnakko		expresses potentiality or conjecture: perhaps; in negative forms expresses doubt: probably not; still, but
		-pa ~ -pä		emphatic in indicative or explanatory sentences; de-emphatic in interrogative and suggestive sentences
		pojat		emphatic
-puuttuv				-ever
	razve			as if; perhaps
-s		*se* / *-š*	*-s*	de-emphatic
-že	*-že*		*-že*	emphatic; very same
-tahto	*-tahto*		*-tah(to)*	-ever
toko-				emphatic yes
		vain	*-vai*	only
	ved'	*vet'*		emphatic; see; perhaps; surely (not)
		äsen		very

Table 75. Interjections in Karelian dialects

GenV 247	Rjag 177–179	Manž 81	GenA 187	RjagL 389–390	Bar 205–206	
a			*a*			expresses wonderment often at the beginning of an interrogative sentence
a-voi-voi		*a-voi-voi*			*a-voi-voi*	expresses regret, discontent, fear, and other kinds of negative affect; expresses amazement or pleasure
ah	*ah*	*ah*	*ah*		*ah*	ah
		ahah	*aha*		*aha*	aha!
		au				hello?
	bris'				*buris'* / *kiš*	used to drive away a cat, chicken, or sheep: shoo
				da nuu		used to begin a declarative, suggestive or interrogative sentence or one expressing amazement or other affect: well
davai			*davai*	*davai*		let us, come on
			eh		*eh*	ah, heh
				heitä		stop it
		hei	*hoi* / *hoo*	*hoi*	*hoi*	hey, hoy
				ihan tottu		for real
ka ~ *kä* / *ga*					*ka*	see; well
					kačo	see; emphatic
				lope		enough

Table 75 continued

			na / *nakkoa*			take; that
	no			*no-o*	*no*	emphatic, used to begin a sentence; well; several other meanings
nu / *nukka*	*nu ko*		*nu* / *nukka*	*nukka* / *nuppo*	*nu*	well, now; begins a declarative, suggestive, or interrogative sentence or a sentence expressing amazement or affect
oh	*oih*	*ohoh*	*ohoh* / *öh*		*oh*	expresses amazement, pleasure, regret, dismay; often expresses downplay and doubt
	oi			*oi*	*oi*	expresses a wish, amazement, pleasure, fright, complain, condolence
	oi-voi-voi					expresses regret
				olgah		expresses concession
				požaluista		you are welcome
				tulgua terveh		welcome
	tääz'					enough
		uh				expresses unpleaseant surprise, being startled, etc.
voi			*vot* / *votas*		*vot*	here, there, what a, etc.

Table 76. Interjections in standard varieties of Karelian

Aht 138–139	Anis 153–154	ZaiK 141 / ZaiV 226	Mark 193–194 / Pyöl 152	
aa			*a-a*	expresses understanding or realisation
			a-u-u	hello?
a voi / voi-voi	*voi-voi*	*a-voi-voi*	*a-voi-voi*	expresses regret, discontent, fear, and other kinds of negative affect; expresses amazement or pleasure
ah	*ah*	*ahah*	*ah / ahah*	ah
aha		*aha*		aha
aiče / ačo			*ai / aiče*	expresses surprise
			eh / eh-heh-heh	happy amazement
	ha-ha-ha			ha-ha-ha
hei /hoi	*hei / ei*	*hoi*	*hei / hoi*	hey, hoy
nu, nukkoa				begins a declarative, suggestive, or interrogative sentence, or a sentence expressing an affect; expresses agreement; used alone to express agreement, a declaration or warning
oo			*o-o*	expresses pleasure, regret, or de-emphasis
oh / oho	*oh*	*oh / ohoh, oh-hoh*	*oh / ohoh*	expresses amazement, wonderment, pleasure, regret, cursing; often expresses downplay and a doubtful attitude
	oi		*oi*	expresses a wish, amazement, pleasure, being startled, lamentation, regret, condolence, or other affect
toko			*toko-vai-toko*	expresses surprise
			u-u	ouch, oh
uih	*uh*		*uh*	expresses unpleasant surprise, being startled, etc.

Conclusions

Table 77. Data in descriptive and normative grammars of Karelian dialects (with page numbers)

	Descriptive grammars												Normative grammars							
	GenS	GenL	GenV	GenA	AnisF/ AnisG	Bel	Palm	Manž	Rjag	Bar	Virt	RjagL	Bubr	Aht	Anis	Zaik	Mark	ZaiK	Pyöl	ZaiV
Phonetics																				
Vowels	207	7–8	165	121	1–3	10–11	7–8	3–7	7–15	8–14		23–25 27–32	5	8	18–20	14–15	5	21–22	11 14–15	13–14
long vowels			165	121			8	5	7–15	15–16		25–27 33–37		8		15	6	22	11	14
diphthongs	214–216	7–10	165–166	121–122	3–7	11–12	9–11	7–8	15–21	16–22		25–27 37–51	5–6	8–9	21	15–16	6–8	22–23	11–12	15–16
triphthongs		9–10			7–8		11		9	22–24		51–52				16–17	8-9	23–24	12	17–18
vowel harmony	214	7	166	122	9–10	12–13	11–12	4–5	21	24–25		52–54	14–15	9	27	17	10	24	13	35
Consonants	207–212	10–13	166–167	122–123	44–48	15–18	14–16	3–7	25–33	25–29 44–48		54–56 58–62	6–9	9–10	22–23	17–19	11	25–26	15	36–37
voiced / voiceless		10	167	124–125	113–118	38							7–8		24		12		15	
close / open sibilants		12–13		123	98–113	39–41		5–6					8–9		26					37–44
palatalisation	211	13–14	168	123	118–128	29–37	17–19	6–7	28–29	25		56–58	6–7 11–12	7	24–25		11–12		15	
geminates	208–214		167		48		17	5	33–35	29–34		66–69			26–27	19	13	26	16	45–46
consonant clusters							19–20		35–40	34–44		62–69		10		19–20		26–27	16	47–48
Phonology																				
Vowel alternations	217		170–174	131–136	11–43	56–67 79–111	38–40 56	24–26 50	23–24	69–71 149–150 175		117–119 124–132 184–191	20	11–23	50 61–63 103	22–26	19–21	30–32	17–18	73–74 160

Consonant gradation	212–214	14–15	168–170	125–131	49–97	19–29	20–23	8–11	47–51	48–55		95–107 121–123	15–19	23–33	36–39	26–29	21–24	32–35	18–19	49–54
Syllable and word structure						8–10			42–46	4–8		71–82	13–14	10	29	20	14–15	27–28	19–20	55–56
Word stress		6–7	168	125		8	24	5	41			83–84	14	10	31	20–21	16	29	20	
Morphology																				
Nominal declension																				
Nominal stem types	219–222 233-235		194–199	151–155	30–96	52–65		12–17 25–28	65–81	58–67 85–113	17–25	140–156 205–213	42–52	45–55	58-69	33–35	30–33	50–55	22–25	60–69
Number	218	18	192-194	150-151	28-29	50-51	38–41	14	53–54	67–71	17–25	123–132 199–202	41	38–39	45-46 59	31–33	33–37	47–50	25–29	70–75
Case																				
nominative				147	4	42	24	17–18	54 81–82	72–73 114	17–25	133–134 216–217	38	39	48	37	41	56	33	76–77
genitive	219	18	191	147–148	5–6	42–43	24–26	18–19	55 82–84	73–74 115–116	17–25	134 217–219	38	39–40	49	37–38	42–43	56–57	33–35	78–79
accusative				150	6-7	43	26	19		74 116			38	39	49	38–39	43–44	57–58	35–36	80
partitive	218	18	190	148–-149	9-14	44–45	26–28	19	55–60 84–86	74–81 116–117	17–25	134–135 220–222	38–39	40–42	50–51	39–40	45–47	58–60	36–39	81–86
essive	218	19	191	148	8–9	43–44	36	22–23	60 86–87	81–82 118	17–25	135 222–223	38	40	51–52	40–41	47–48	61	39–40	87

Table 77 continued

	Descriptive grammars												Normative grammars							
	GenS	GenL	GenV	GenA	AnisF/ AnisG	Bel	Palm	Manž	Rjag	Bar	Virt	RjagL	Bubr	Aht	Anis	Zaik	Mark	ZaiK	Pyöl	ZaiV
translative	218	19	191	149	15	45–46	35–36	23	60–61 87–88	82 118–119	17–25	135–136 224–225	39	42	52	41	48–49	61-62	40–41	88–89
INE	217	18	191	149	15–18	46–47	30	19–20	61 88–89	82 119–121	17–25	136 225–229	39	42–43	52–53	42	49–50	62	41	90–91
elative		18	191			47–48	31–32	20	61–62 89–-90		17–25		39–40	43		42–43	50–51	63	42–43	92–93
illative	218	19	191	149	18–22	48	28–29	20–21	62–63 90–91	82 121–122	17–25	136–137 229–232	40	43	54	43–44	51–52	64	43–44	94–95
adessive	217–218	19	191	149–150	22–24	48–49	32–34	21	63 91–92	82–83 122–123	17–25	137 232–235	40	43–44	54–55	44–45	52–53	64–65	44–45	96–98
ablative			191			49	34–35	21–22	63–64 93		17–25		40	44		45–46	53–54	66	45–46	99
allative	218	19			24–26					83 123	17–25						54–55		46	
abessive	218	19	191	150	26–28	49–50	37	23–24	64 93	83 123–124	17–25	137–138 235–237	41	44	55	46	55	66	47	100
comitative	218		191	150		50	37	24–25	64 94	83 124		138 237		44		46	56	67	47–48	101
instructive	218		191–192	148			37–38	25	65 94–95	83 124		138 237–238		45		46	58	67	49	102
prolative	218		192	150					65 95	83 124–125		139 238					57		48–49	

approximative							35												
egressive							35												
Possessive suffixes		21	203–204	157	29–30					84		157–159 238–241	41–42	64–65		47–48	59	108–109	151–152	124–125
Comparative forms																				
comparative	222	20	199–200	155	178	66	42	38–39	97	126	84–85	111–114 242–243	34	56	77–79	49–50	66–67	94	53–54	114–115
superlative	222	20	199–200	155	181–182	66–69	42–43	38	97	126	84–85	112–114 243–245	34-35	56–57	77–79	50–51	67–68	95–96	54–56	115–116
Numerals	222	20	200–202	156	96–98		43–45	44–48	98–102	126–132	80–83	246–260	23 52	57–62	85–94	51–56	71–86	97–102	56–63	139–146
Pronouns	223–225	20–22	202–206	157–160	98–102		45–57	49–51	102–110	132–136	75–79	261–282	24 53	62–73	94–100	57–64	86–89	106–119	63–71	121–139
Conjugation																				
Verb stem types	227–230 235–239	26–28	222–234	169–178	119–162	78–111		58–64	112–122	137–142 173–82	105–107	207–329	65-78	83–95	125–131	64–67	101–108	71–72	73–78	147–151
Personal forms of verbs	226–230	22–23	214–216	168–169	102–103	70	53–54	52	111–112	143–146	105–107	194–195 285–288	60	74–75	102 106–107	67–69	108–109	73–76	78–80	152 170–172
Tense																				
present	235–239	22–23	214	164	113	71–74	54	52–53	123–128	147–148	105–107	160–161 297	61	76	105–106	70–72	113–114	73–777	81–83	152–155
imperfect	235–239	23	212	164	110	71–74	55	52–53	128–134	148–151	105–107	162 297–298	61	76	105 107–109	72–76	115–122	74–780	84–90	156–163

Table 77 continued

	Descriptive grammars												Normative grammars							
	GenS	GenL	GenV	GenA	AnisF/ AnisG	Bel	Palm	Manž	Rjag	Bar	Virt	RjagL	Bubr	Aht	Anis	Zaik	Mark	ZaiK	Pyöl	ZaiV
perfect			220	178	111–112		57–58	60	134–135	151–152		166–167 298		99–104		76–77	122–123	80–81	90–91	164
pluperfect			220	178	111–112		58	55 60	135–136	153–154		166–167 298–299		99–104		77–78	124–125	81–82	91–92	166–167
Mood																				
indicative	235–239	22–23	214	164	103	70–73	54–58	58–61	123–139	147–154	105–107	291	60	76	118–119	69–78	128	73–82	94	151–172
imperative	226 235–239	27	213–214	165–166	106–109	71–74	61–63	63	143–147	160–162	105–107	172–177 293–296	61	77–78	118–119	82–84	146–151	88–90	108–112	172–179
conditional	226–227 235–239	23	213	165	104–106	71–74	59–61	61–62	140–143	154–158	105–107	170–172 292–293	61	76–77	118–119 121–123	80–82	129–141	82–85	95–104	178–183
potential	226 235–239	22–23	212–213	164–165	103–104	70–74	58–59	62	139–140	158–159	105–107	167–169 291–292	60–61	76	118–121	78–80	141–145	85–87	104–108	184–188
Negative forms	233	28	221–222	178–179	113–116	74–78				146–147		177–179 329–351	62–63	82–83	123–125		110–111			
Passive	226 236–239		218–220	166–168			63–65	63–64	123	142–143		289–291		80–82					72–73	
Reflexive verb conjugation	230–233	24–26 28–30	234–240	179–182	116–118	78			147–152	182–193		352–370	63	116–126	115–116		170–177		113–121	

Infinitives																			
1st infinitive	227–230 235–239	23	216	166	119– 162	112	65	54	153– 155	162– 163	105– 107	371– 372	64	78	103	84–85	153– 154	121– 122	122– 124	189– 190
2nd infinitive	235-239		216- 217	166	204- 205	112- 113	65-66	57		164	105- 107	376	64	78–79	141– 144	85–86	155– 157	122– 124	124– 125	192– 195
3rd infinitive		23	217	166	205– 206	114– 116	66–67	54–55 58	156– 157	165	105– 107	372	64–65	79	103– 104	86–87	157– 158	124– 127	125– 127	195– 199
Participles																			
active 1st participle	235–239		217	166	202	116– 117	67 69	55-56	157	166- 168		374– 375	65	79	134– 139	88	160– 161	128– 129	128– 130	200– 201
passive 1st participle	236–239		217	168	203	118	67	56	158	168	107– 108	375	65	82	134– 139	88	164– 165	130	133- 134	202
active 2nd participle	235–232	27	217	166	203	117	67–68	56	158	169– 170		375	65	80	134– 139	88–89	161– 163	131	131– 133	203– 206
passive 2nd participle	225 236–239	27	218	168	203– 204	118– 119	68–69	56	159– 160	170– 172	107– 108	375– 376	65	82	134– 139 142	89–90	166– 168	132– 135	135– 137	207– 210
Uninflected words																			
Adverb		30–31	241– 246	182– 185	206– 213	157	69–72	70–75	161– 164	193– 197	86–104	377– 379	23–24 78	126– 131	144– 147	90–91	182– 185	103– 105	138– 140	
Postpositions and prepositions		31	246– 247	185– 186		69–70	72–74	76–78	164– 168	197– 201	86–104	383– 385	25	132– 137	148– 151	92–97	185– 189	135– 137	141– 146	214– 220
Conjunctions	233	31	247	186– 187			75–77	79–80	168– 172	201– 203		386– 389	25	137– 138	151– 152	97–99	190– 192	137– 139	147–49	220– 222
Particles	233							81	172– 177	204		379– 383	25	131– 132	152– 153	99-100	192– 193	140	149– 150	223– 225
Interjections			247	187				81	177– 179	205– 206		389– 390	25	138– 139	153– 154		193– 194	141	152	226– 227

CLUSTER MAPS

The data for our cluster maps are drawn from the dialect atlas of the Karelian language by Bubrih et al. (1997), with supplementary data on Border Karelian dialects collected from the language samples in Leskinen's *Karjalan kielen näytteitä II* (1934). The basemap is that of the Atlas with slight alternations.

Cluster maps are named with the code *abcdefg*, in which the clustering is based on the Atlas maps *abc-def* (0 < *abc* , *def* < 193) with the clustering level *g* (1, 2, …). As such, Map 0040041 illustrates how places divide into clusters based on their dialect variant of the word *mua* (*mua*, *muo*, *moo*, *moa*, *maa*, *mja)*, while Map 0042093 provides the reader with a general picture of how Karelian dialects divide into clusters based on all data contained in the dialect atlas.

ATLAS MAPS

The Atlas maps illustrate which features differ between Karelian dialects. For instance, on map k004 dialects are divided into six classes based on their variant of the long vowel *aa;* i.e. whether it be *ua, uo, oo, oa, aa,* or *ja.* In the word list presented below classes are separated by a vertical bar |. One class may contain variant forms; on map k015 the words *luassa* and *luašša* both belong to the same class, as the map depicts consonant loss between vowels, not the quality of the sibilant or the inessive case ending. On map k025 the abbreviated notation *abutta{u,b}* means both *abuttau* and *abuttab*, while *av[v]uttau* means the same as *avvuttau* and *avuttau*. For further information on which linguistic feature each map illustrates, see the Atlas.

```
k004: mua|muo|moo|moa|maa|mja
k005: piä|peä|pee|pää|pie
k006: ostaa|ostoa|o{s,š}tja|o{s,š}tua|ostuo|ostoo|oštuu|ostada
k007: elää|eleä|eliä|elüä|elöä|elee|elie|elí|elädä
k008: kaivuo|kaivoo|kaivua|kaivod|kaivu
k009: koivuo|koivuu|koivua|koivud|koivu
k010: sanuo,puhuo|sanua,puhua|san{o,u}da,puhuda|šanta|šanù,puhù
k011: veän|viän|vien|vejän|vedän
k012: pimed|pimei|pimiä|pimie|pimì
k013: sogedat,rubedab|sogiat,rubiau|sogiet,rubieu|šogit,rubuu
k014: pien|piän|pijän|pidän
k015: laes|lais|laassa|loassa|luassa,luašša|ljašša|loossa|lages|
      lajes,lajessa|lavešša
k016: käet|käit|keät|kiät|keet|käjet|kädet|käzit
k017: paeta|paita|poata|puata|pjata|paata|poota|pajeta|pageta|pagoh
k018: näen|näin|neän|niän|neen|näjen|nägen
k019: avaella|availla|avua{lla,l'l'}a|avoalla|avoolla|avul'l'|avajella|
      avjalla|avaadelda,avaidelda
k020: lainoella|lainoilla|lainuo{lla,l'l'}a|lainualla|lainuulla|lainul'l'|
      lainojella|lainodelda
k021: lukkuella|lukkoilla|lukkuilla|lukkuo[i]lla|lukkujella|lukkudelta|
      lukkul'l'
k022: veessä,reessä|veissä,reissä|vies[sä],rie[ssä]|
      vejessä,veješšä,rejessä,reješšä|vedes,reges
k023: rais|ruah[i]|rjahi|rajeh|rageh,rages|ragiž
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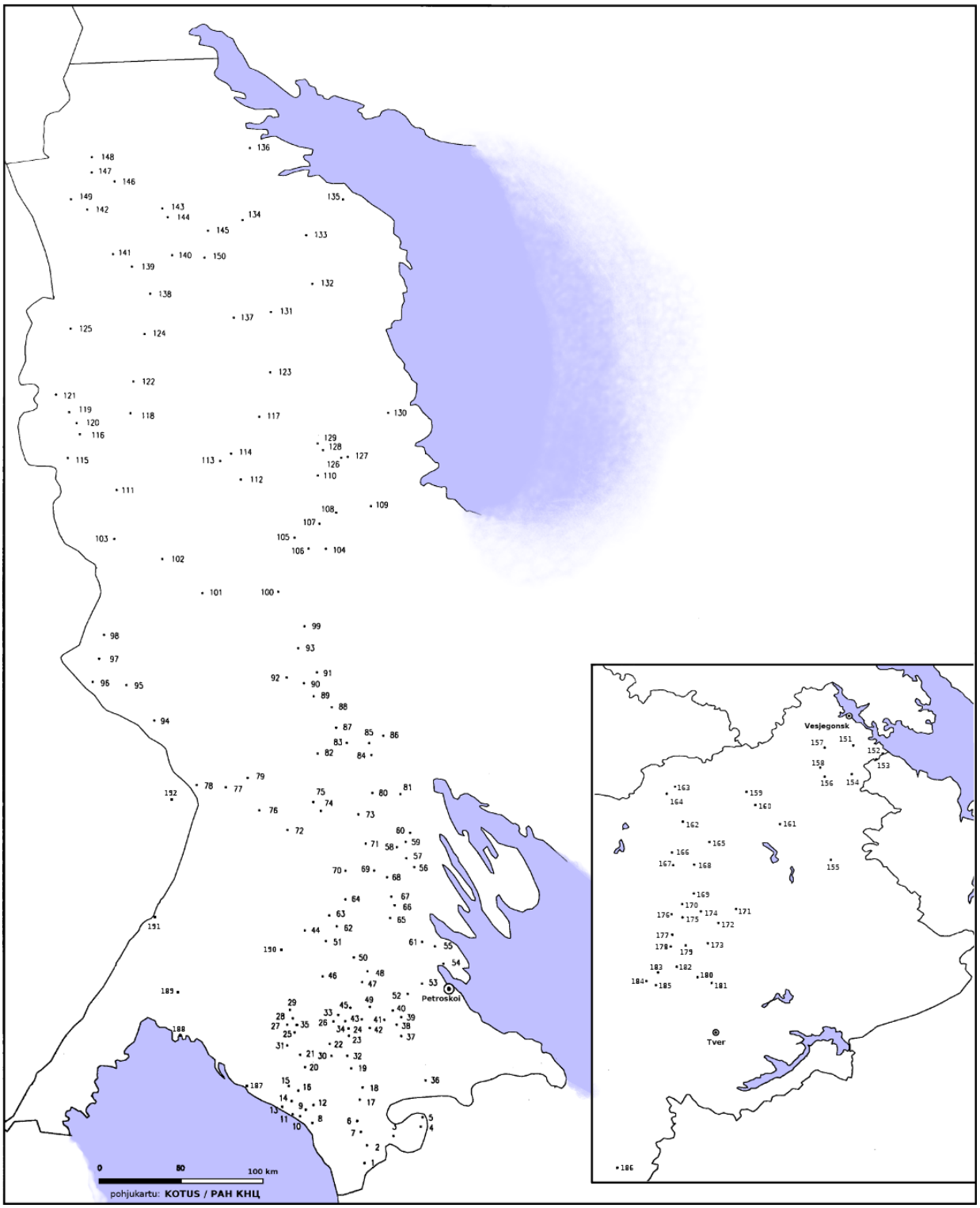
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k024: haukka,haukku|habukke,habukaz,habuk|avvukku|havukko|?
k025: abutta{u,b}|av[v]uttau|autta{u,a}
k026: rui{s,s'}|rugiž
k027: adra,{s,š}uara,šiara,silmä,šil'mä,s'il'mä|adru,suaru,silmü|
      adre,suare,silme|adr,   {s,š}uar,silm,šil'm
k028: ikkuna|ikkun
k029: tavara|tavaru|ta[u]var
k030: kirjava,kird'ava|kirjavu,kird'avu|kir{j,d'}au,kir'jau
k031: ve[i]stä,veis't'ä,|veičč{ie,ee,ei,ed}|veis't'ä,veičči
k032: lugemah|lugomah|lugmah
k033: lähtemät|lähtömät|lähtimät|läht'mät
k034: vägevät|vägövät|vägvät
k035: lämbimät|lämbümät|lämbmät|lämmät
k036: laiska,muista|lašku,mušta
k037: pui{st,s't'}au|puštau|pudištab
k038: akkaizet|akka{z,z'}et,akkzet|akkaažet
k039: akkaine|akka{n,n'}e,akka{ni,n'}|akaane
k040: harakkaine,harakkaizet|harakkan'e,harakkaz'et|haragaan'e
k041: reboi|rebo,r'ebo,r'eb|rebuoi|rebuo,rebuu
k042: jalga,jogi,juuri|d'alga,d'ogi,d'uuri
k043: ladjata,lad'jata|lad'd'ata
k044: karja|kard'a,kar'd'a|stuada,stįada
k045: savu,šavu,vävü|savvu,vävvü|sau,šau,väü
k046: paiju,paju|paivu|-
k047: ennen,eglein|enne,egläi
k048: päin|päi|päit'|päit'en
k049: kaheksan,kahekšan,üheksän,ühekšän|kaheksa,üheksä|kahesa,ühesä
k050: seiččemen|seičmen|seiččeme|seiččema|seiččimen|seiččime|seiččemän|
      seiččemä|seiččein|seiččei|seiččen|seičče|seiččemei|seičči
k051: vanha|vahna
k052: piendar|piennar|pienar|pengger,pönggär
k053: puurnu,puurn|puuru
k054: čirkku|čirku
k055: čirppi|čirpi
k056: per{tt,t't'}i|per{t,t'}i
k057: tülčči,čülčči|tülči,t'ül’ci,t'ül'čä,č'ülci,č'ül’ci,čül'čä
k058: mado:madot,jogi:joget,aida:aidat,aiga:aigat|
      mado:mavot,jogi:jovet,aida:aijat,aiga:aijat
k059: soba:sobat,taba:tabat|soba:sovat,taba:tavat|soba:sobat,taba:tavat
k060: randa:randal,parda:pardal,peldo:peldos|
      randa:randas,parda:parras,peldo:pellos|parda:paaralla
k061: kieldän,piirdän,tüöndän|kiellän,piirrän,tüönnän|kielän,piirän,tüönän
k062: vanhembat,izändät,kumardun,humaldun|
      vanhemmat,izännät,kumarrun,humallun
k063: lesket,kosket|lesset,kosset|leset,koset
k064: lastut,ahtahat,petkelet|lassut,ahas,petel|laššut,ahas,pöt'kel|lasut
k065: nahka:nahkat|nahka:nahat
k066: tahkuo:tahkotah|tahkuo:tahotah
k067: puhkie:puhetah|puhkie:puhkietah
k068: side|sidie|šidim|sije|sive|sie|sideg
k068: ainago|ainavo|ainuo|ainikke
k070: azruan|azrain|azruami|azrįan|azragain|ostroga|strag
k071: kevädel[lä]|keväjel[lä]|keviäl,kevil
k072: abu,pada,olgi|apu,pata,olki
k073: aiza,aiz'aaiža|aisa,aiša
k074: sada|šada
k075: suorittau|šuorittau
k076: särgi,seppä|šärgi,šeppä
k077: kesä,kezä|kešä,kežä
k078: isköü|išköü
k079: kiskou|kiškou
k080: istuu|ištuu
k081: aiza,aisa,laiska|aiža,aižu,laiška,lašku,laške,lašk|aiz'a,lais'ka
k082: andais,andaiz,andaz|andaiš,andaš,andaiž|andais'
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k083: reizi,reisi|reiži
k084: huovis|huoviš|huovis'
k085: vieras,seiväs,ilves,vieraz,seibäz,ilbez|vieraš,seiväš,šeiväš,ilveš|
      vieraš,s'eiväs'
k086: silmä,sivu|šilmä,šivu|silmä,šivu
k087: käzi,käz'i,käsi|käži
k088: lapsi,laps'i,suksi|lapši,sukši
k089: üksi,üks'i|ükši
k090: tiezi,tiesi|tieži,t'ieži,tieši|tiedi,t'iedi
k091: tozi,vuozi,uuzi|toži,vuoži,uuži|toši,vuoši,uuši
k092: kazi,kaz'i,kasi|kaži
k093: varzi|varži,varši
k094: künzi|künži,künši|künd'ži
k095: süvä|s'üvä|šüvä
k096: astie,as't'ie|aštie|aščie,aščad
k097: alasti|alašti,alašta|alašči|alaštoin
k098: nelläs,nel'l'äs,nelläz|nelläš,nel'l'äš,nelläž|nelländž
k099: se|še|že
k100: čoma|šoma|soma
k101: kačču,mečča,očča|kaccub,mecc,occ
k102: tedri,tetri,tödr|t'edri
k103: tie|t'ie
k104: nuatti|nuat't'i,nįat't'i
k105: nenä|n'enä
k106: kuldane,kuldaine|kuldan'e,kultain'i,kuldan'i
k107: lehmä,liha,löülü|l'ehmä,l'iha,l'öülü
k108: külmä,nälgä|kül'mä,näl'gä
k109: nivel,petel|nivel',n'ivel'[i],petel',pet'el',pet'kel'[i]
k110: rihma,regi|r'ihma,r'egi
k111: tedri,suuri,šuuri|tedr'i,t'edr'i|suur'i,šuur'i|tödr,töder,šuur'
k112: puata,pįata,pageta|puat'a|männa pagoh
k113: lapsin,lapšin|lapsiin,lapšiin|lapsien|lapsiden|lapsiloin
k114: reboloin|rebolojen|rebojen|reboloiden|reboiden|reboin,rebuun,rebuon
k115: sanoi|sanoija|šanoja|sanoida,šanoida|sanoid,sanuoid,sanuod|šanloi
k116: kontieta,kondieda|kondiedu|kondio,kondia|kondiad,kondijad|kondid
k117: kondieloi|kondieloida|kondiloi|kondeida|kondijoid|kondijuod
k118: yölöi|yölöjä|yölöidä|yölyöid|yöid,yid|öidä
k119: učit'el'ana,uč[ie]t'el'ana|učit'el'annu|uč[i]t'el'an
k120: učit'el'akse,učit'elakse|učit'elaksi,uči[e]t'el'aksi,učt'el'aksi|
      učit'el'aks,učt'el'aks
k121: mečäs,pertiš|mečä{ssä,ššä,s's'ä},perti{ssä,ššä,s's'ä},mečä{stä,s'tä},
      perti{stä,s'tä}|mečäšš,pertis's',mečäšt',pertis't'
k122: meččäh|meččähä,meččähe|meččää|meččäi
k123: veičel,starikal,kirvehel|veičellä,starikalla,kirvehellä,veičeldä,
      starikalda,kirveheldä|veičel,starikal,kirvehel,veičele,starikale,
      kirvehel|veičel,kirvehel,veičeld,kirveheld
k124: gor'atta|gor'ata|gor'attah|gor'att
k125: mie,miun,sie,siun,šie,šiun|minä,minun,sinä,sinun|mi[j]a,si[j]a|
      miä,miun,siä,siun
k126: hiän,heän,heen|häin,häi|hän|hin
k127: miän,tiän,hiän|miän,tiän,hiän,hein|mejän,tejän,hejän|
      meijän,teijän,heijän|meijen,teijen,heijen|meiden,teiden,heiden
k128: minuu,sinuu|minud,sinud|mindai,mindaa,sindai,sindaa|miuda,siuda|
      milma,silma,šilma|miuma,siuma,šiuma|mulma,šulma
k129: meidä,teidä,m'eidä,t'eidä|meidü,teidü|meid,teid,t'eid
k130: minul,miul|minule|miula,m'uula|milii,milie
k131: meilä,meil'ä|meile|meil,meil'
k132: tuattah,tuattoh|tuattoo|tuatto
k133: ke|kel,kele|ker|kera|ker[a]|keral,keralla|-kke[h]
k134: luona|luo,lua,loo,luu,luh|nu,no
k135: luoda,luota|luolda|luonda|luo,lüö,loo|duo[h],duh|nu,no,lu|miušta
k136: luoksi,luokši|luoh,luoho|luo,lüö,loo|luste|luh|no,nu,lo,lu
k137: sah,säh,soah,suah[e],suaho,šuah,šįah|sai|sua,šua,soo,saa,suo,šįa|
      suate[n],šuaten,suati,suat,šuat,šįaten,šįat|šut't'en,šu
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k138: suurin,suurimat|suurin,suurimmat|šuuriin|kaikkie suurin|kaikkie suuriin|kaikkie suurembi|kaikista suurembi|suamoi šuur|suurembi
k139: nägöü|nägob|nägöö
k140: niämmä,n'iämmä,löüvättä,l'öüvättä|näimmö,löüvättö|nägemme,löüvätte|nägemm,löüdätt|n'iämm,löüvät't'
k141: lugietah,purrah,tullah,mennäh|lugietaa,purraa,tullaa,mennää|lugetau|lugetaze
k142: tiezin,t'iežin,tiijin,kiännin|tieziin,t'iežiin,t'iijiin,kiänniin
k143: sanoi,šanoi|sanuoi,sanui|sanuo|sano,šano|šan
k144: läksimä,l'äks'imä|läksimmä,l'äks'immä|läksiimä|läksiimmä|l'äks'im,läksiim|lähti[i]mmö|lähtimme,läkšimme
k145: sanoitta,šanoitta|sanoitto|sanoitte,sanuitte|sanuitt|sanoja,šanoja|sanoji
k146: keräzittö,keräittö|keräzittä,keräittä,keräit't'ä|keräzitte|keräziitt|keräzijä|keräjitt
k147: süödih,s'üöd'ih,šüöd'ih,sanottih|süödihe,sanottihe|süödii,sanottii|süödi,sanotti
k148: andanou|andannou|jes'l'i andau
k149: annettaneh|annettanneh|annetanneh|anttanee|anttanou,andettanou|jesli annetah
k150: andazin,andaz'in|andaz'iin|andažiin|andaižin|andaiz'iin|andaažiin
k151: andas,andaaž|andais,andaiž|andaisi,andaizi|andais'
k152: sanožimmo|sanozimma|šanoz'iimma|šanoz'iima|sanozima,sanoz'ima|sanožimme|sanuižiim
k153: sanozitto,sanožitto|sanozitta,sanoz'itta|sanozitte|sanozija,šanoz'ija|šanz'iz'iitt|sanuižiitt|šanoz'iitta
k154: ossettais,ostettaiž|oššettais'[i,en]|ostettas|osttaaž
k155: olizin ostanu,ol'iz'i[i]n oštan[nun]|oizi[i]n oštan[nun]|ostanu[i]zin|oštaz'iin eglein
k156: unahtakkammo|unahtakko|unahtagam|unahammakko|unahamma|onohtamme|davai[t'e] unahamma
k157: ottakkua,ottakkoa|ottakkuakko|ottakkuatto|ottagat,ottagatte,otkat|ottuatto|ottuat
k158: emmä,että,et't'ä|emme,ette|emmo,etto|emmö,että|em,et,ed
k159: ei lugieta,ei luveta|lugia,lukie|lugedah,lugedai|luvettua|lugeguo|lugit
k160: ei jiähä|jiäh|d'iedä,d'iedeä|d'iedäh|d'iejä|d'iaguo
k161: en lugenut|lugenuh|lugenun,lugennun|lugenu|lugen|luget
k162: että,et't'ä tullun|että tullut,tuldud|että,et't'ä tulluh|ettätulnu
k163: elgiä,el'giä,elgüä,elgät|elgat|älgiä,älgeä,algät|algat,alguu,augotte|el'gie|el'güö|elgü
k164: kumardam[m]os|kumardamu{u,o},|kumardavun|kumardua{t,č}en|kumardamačči|kumar{z,d}un|kumardammoh
k165: kumardahez[e]|kumardah|kumardaz{o,u}u|kumardaze|kumarduu|kumarduatou|kumarduačou|kumarduakse
k166: ištum[m]okseh|ištumuužebad|ištuvumma|ištua{t,ž}emma|ištuamačči|ištuzumme|ištučem
k167: ištuhez[e]|ištuzebad|istuvutah|istuhačči|ištuzeh|ištuzuttai|ištuhokse|ištuttau|i{s,š}tuočetah|istučtah
k168: kumardi[i]m[m]os|kumarduimuo|kumardavuin|kumarduatin|kumardi̯ačin|kumarduačiin|kumardamačči|kumarzuin
k169: kumarduttiheze|kumaduihezebad|kumardih|kumardahičči|kumardauvuttih|kumarzihokseh|kurmarduačettih
k170: ištoi|ište|istovu|istuo[te]|i{s,š}tuo,istuvu,istuutuo|istuoče|istuč
k171: kumarduotokseh|kumardakkuakseh|kumardu{kk,g}ua|kumar{d,z}ukkat|kumarrakka{hez,zeh}|kumardaukuačči|kumargatuuzebad|kumarduačekkua,kumard'uačekki̯a|kumardučekku
k172: en kumardai[je]|kumar{r,d}u|kumartauvu|kumarduate|kumarduače|kumarte|kumarzu
k173: pajataškan[den,zin]|-
k174: sanua|{s,š}anuo|sanoa|san{o,u}da|šanuu
k175: s{u,o}a|suoja,suvva|suah|s{u,o}aha|š{u,i̯}aha|suada|šuu
k176: nähtä|nähä|n'ähä|n'iähä|nägie|n'ägii
k177: süüä|süvvä|{s',š}üüvä,šyyv|süödä

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k178: kumarduakseh,kumartakse|kumarduo,kumardaudua|kumardasta|
      kumardua{t,č}ie|kumard{u,į}ačie|kumarduči|kumarzuda
k179: avate{ss,šš}a,avatessah|avates|avuas's'a|autešš
k180: lug{e,o,-}mah|lugemaa|lugemai|lugemaha
k181: süödüü,sanottuu|süödüi,sanottui|süödüö[h],sanottuo,{s,š}anottuoh|
      šüödüö,{š,s'}üödüöh,šanohuo[h]|süödüönä,sanottuna|süödühüö,süötühüt,
      sanottuhu{o,t}|süödähüöh,sanohuoh|šüäd'üh,šanhuh|süödütt,sanodutt
k182: luvettu{u,o[h],h},lugietuo|lugehu{u,i}|lugehuo[h]|lug[e]huh|lugedutt
k183: lugija|lugiju|lugi{i,j}
k184: väzünüt|vaibunnut|väsünüh|väzünün|vai{b,v}unnun|väzünüini|
      väzünü,viäznü|väzün|vai{b,v}un
k185: lugiettu|lugedu|lugetud|lugitt
k186: kirp[p]u|kir'p|hüppijäine|čond'žoi|sonsar|bloh[a]
k187: a[s,š]tova,a{st,šč}ivo,astuvo|h[u]ara|äger|korppi
k188: hir{š,z',ž}i,hirž|parz[i],parz'|tukki|pölkkü
k189: reng[i]|viedr[a]|šankko|kattila|kanteikka|ämpäri
k190: eht{ü,e}|ild[a,u]
k191: {l,l'}iga|ra{p,b}a|räčč[i]|bröttö|{r,r'}edu,red
k192: {r,r'}edu,red|liga
k193: uksi|ovi
k194: levo|krou{l',n'}|kato{s,š},katuz
k195: roža[t]|iho|{n,n'}ägö|{l,l'}iča,l'ika,l'ie|nuo{l,m}a
k196: höštö,höste,höšče|ta{d,j}eh|tajeh|tuah[i],tįahi|lanta
k197: paj{o,u}|laulu|vir{š,z',ž}i,virž
k198: päčč[i]|kiu{k,g}ua,kiuguu,k'uugua
k199: oza|vuitti|čuasti,čuast',čuas't'i,čįas't'i|dol'a|kappaleh|pala
k200: pendu[ni,n'e],pendo[n'e],pento|penikka|koiranpoig{a,u}|kud'žu
k201: sange{i,d}|{d',j}ärei|pak{s,š}u|d'ämei|ložie
k202: hura|va{z,ž,š}en,važ[a]mi
k203: val{e,a}hella|kielast{u,ad}a|muan'itt[u]a|huordįa
k204: ellendiä,elgeta|toimit{ada,tua}|malt[t]ua,maltįa,maltuu|ümmärtüä|
      ponimai{d,j}a
k205: kaimavuo,kaimatakse|hävitä,hävit't'iäčie|
      kad{uo,uu,oda},kaduočie,kavota|häbevüö|  h{aja,äjä}tada
k206: oppi{e,da},opta|kuotella,kuatell|maistua|otella|ruuvata|koittua|
      proubuija
k207: kaimata|šuatt{ua,uu,ada},šįattia|ül'en'd'iä|provodi{e,da}
k208: suuttuo,suutuda|tuskevu{o,da}|šiändü[ö],{š,s'}iänd'd'üö,
      šiän'd'eliečie,sienduda|süvelduda| verduda
k209: malt{ua,ada}|maht{ua,uu,įa}|ošata|šuattua
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Basemap and Atlas data collection points



The Karelian Republic

1. Megrega
2. Kuytezha
3. Megrozero
4. Ust'ye
5. Mikhailovskoye
6. Bol'shaya Sel'ga
7. Malaya Sel'ga
8. Tulokhsa
9. Verkhnyaya Vidlitsa
10. Vidlitsa
11. Ust'ye Vidlitsy
12. Gavrilovka
13. Pogrankondushi
14. Kavgozero
15. Pertnavolok
16. Bol'shiye Gory
17. Torosozero
18. Kotkozero
19. Vagvozero
20. Kinelakhta
21. Pul'tsheyla
22. Yurgilitsa
23. Shchekkila
24. Gabozero
25. Palalakhta
26. Hlevnavolok
27. Kolatsel'ga
28. Sarigora
29. Sona
30. Gizhezero
31. Kizhala
32. Sosnovaya Lamba
33. Savinovo I
34. Savinovo II
35. Mandera
36. Kashkany
37. Vazhinskaya Pristan'
38. Svyatozero
39. Peldozha
40. Pryazha
41. Man'ga
42. Salmenitsa
43. Lambisel'ga
44. Kangozero
45. Ulyalega
46. Veshkelitsa
47. Essoyla
48. Syamozero
49. Gutsel'ga
50. Lakhta
51. Chalkosel'ga
52. Matrosy
53. Vidany
54. Polovina
55. Namoyevo
56. Lytshnyy Ostrov
57. Vladimirskaya
58. Tivdiya
59. Lizhmozero
60. Oyazha
61. Gomsel'ga
62. Vokhtozero
63. Syapchezero
64. Titnavolok
65. Spasskaya Guba
66. Munozero
67. Pyalozero
68. Ussuna
69. Koykary
70. Lindozero
71. Svyatnavolok
72. Porosozero
73. Yustozero
74. Sovdozero
75. Jangozero
76. Kudamguba
77. Klyushina Gora
78. Lubosalma
79. Gimoly
80. Myandusel'ga
81. Chebino
82. Sel'gi
83. Yevgora
84. Sayezero
85. Karel'skaya Masel'ga
86. Petel'navolok
87. Padany
88. Sondaly
89. Syargozero
90. Vengigora
91. Shalgovaara
92. Lazarevo
93. Kuznavolok
94. Lendery
95. Kimovaara
96. Tulivaara
97. Reboly
98. Yemel'yanovka
99. Korguba
100. Rugozero
101. Tikshozero
102. Kimasozero
103. Luvozero
104. Kompakovo
105. Markova Gora
106. Kallivarakka
107. Tunguda
108. Mashezero
109. Shuyezero
110. Ushkovo
111. Kostomuksha
112. Sopovarakka
113. Yushkozero
114. Suopasalma
115. Kamennoye Ozero
116. Voknavolok
117. Panozero
118. Alozero
119. Pon'goguba
120. Pirttiguba
121. Voynitsa
122. Ukhta
123. Kurgiyevo
124. Regozero
125. Tikhtozero
126. Rigoreka
127. Maslozero
128. Lezhevo
129. Pebozero
130. Poduzhem'ye
131. Verhneye Kumozero
132. Pil'dozero
133. Boyarskaya
134. Parfeyevo
135. Sonostrov
136. Nil'mozero
137. Korelaksha
138. Kyabeli
139. Sof'yanga
140. Kesten'ga
141. Laydosalma
142. Olanga
143. Senozero
144. Yeletozero
145. Tikshezero
146. Kundozero
147. Sokolozero
148. Ruva
149. Vartiolambi
150. Lokhivaara

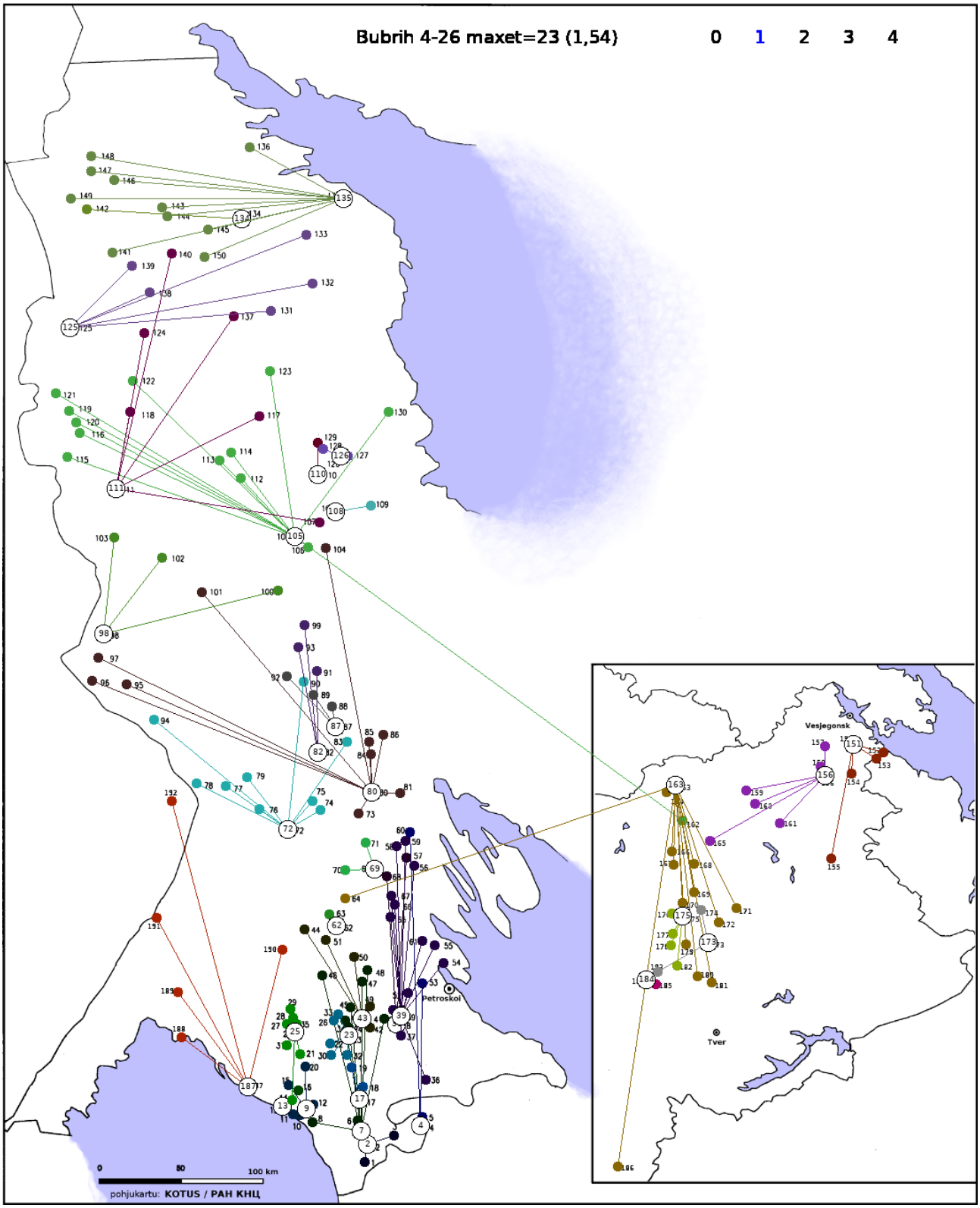
Tver oblast

151. Potsep (1) (Počpova)
152. Dyudikovo (2) (Dyit'kövä)
153. Moseyevskoye (3) (Mois'ova)
154. Petryayevo (4) (Petrjava)
155. Klimantino (5) (Kl'iment'ina)
156. Chernyagino (6) (Čerd'iäd'nä)
157. Kopayevo (7) (Kopanova)
158. Timoshkino (8) (Timoškina)
159. Batikha (9) (Bat'iha)
160. Volkhovitsy (10) (Volhova)
161. Karel'skiy Gorodok (11) (Gorotka)
162. Zabolot'ye (12) (Zuablot't'a)
163. Spirovo (13) (Tatarkina)
164. Lopatikha (14) (Lopuat'iha)
165. Bludnitsy (15) (Bludn'ičča)
166. Parkhovo (16) (Parhova)
167. Astashikha (17) (Ostašiha)
168. Andriyanikha (18) (Ondrein'iiva)
169. Kostretsy (19) (Huabrikka)
170. Ostrye Luki (20) (Vostroi)
171. Klyuchevaya (21) (Kl'učevoi)
172. Trestna (22) (Tresna)
173. Prudovo (23) (Prudova)
174. Bol'shoye Vozdviženiye (24) (Sviiz'en'ie)
175. Lukhnovo (25) (Čökkel'ie)
176. Aržanoye (26) (Ruis'puwsta)
177. Nikulino (27) (Mikul'n'a)
178. Bor (28) (Boru)
179. Tolmachi (29) (Tolmačču)
180. Denisovo (30) (Den'is's'övä)
181. Nikol'skoye (31) (S'ola)
182. Volkhovo (32) (Volhova)
183. Antsifarovo (33) (Ončufuarova)
184. Bol'shoye Ploskoye (34) (Šuwri Ploskoi)
185. Timoshkino (35) (Timoškina)
186. Vasil'yevskoye (36) (Vas'il'iskoi)

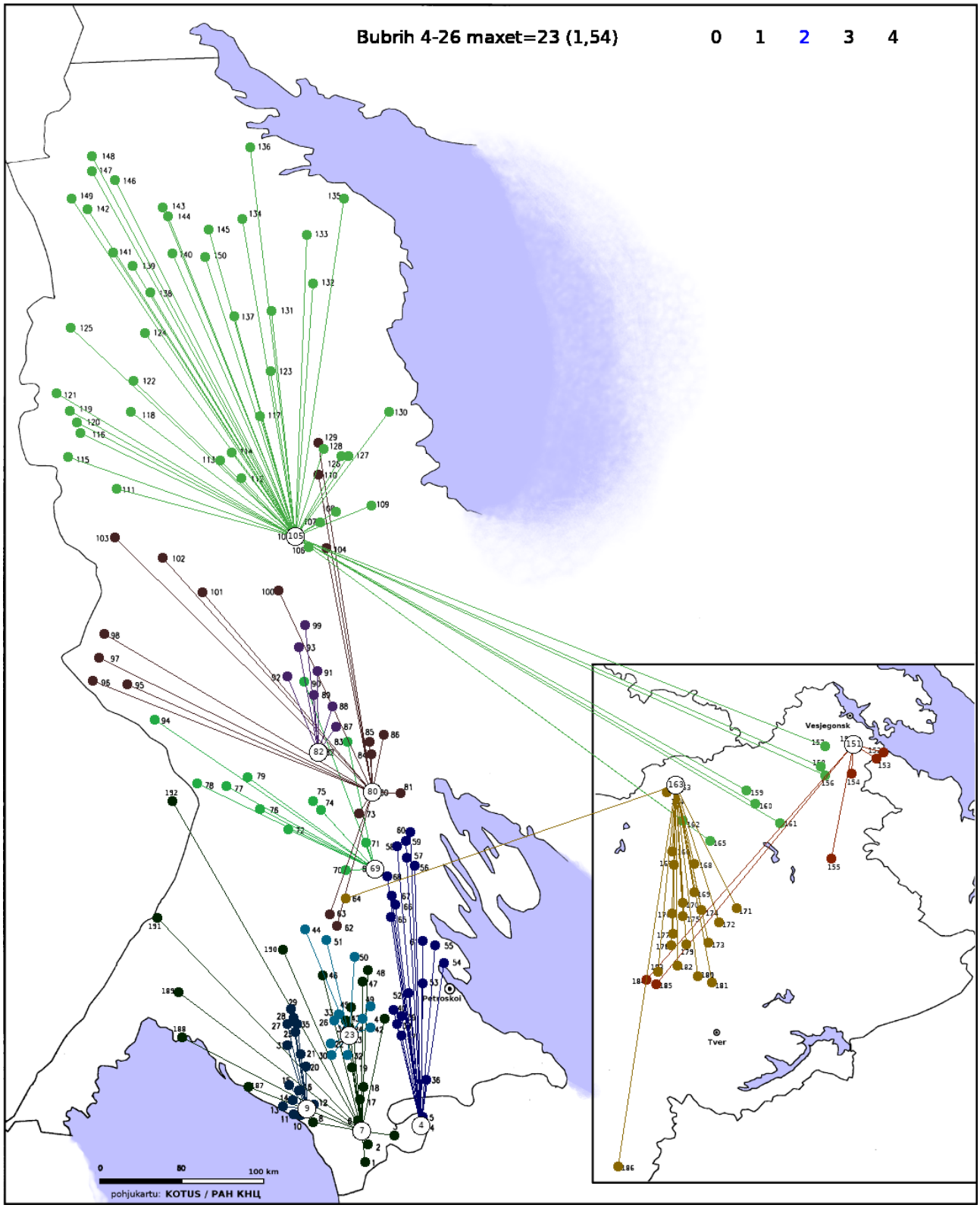
Border Karelia

187. Salmi
188. Impilakhti
189. Suystamo
190. Suoyarvi
191. Korpisel'kya
192. Ilomantsi

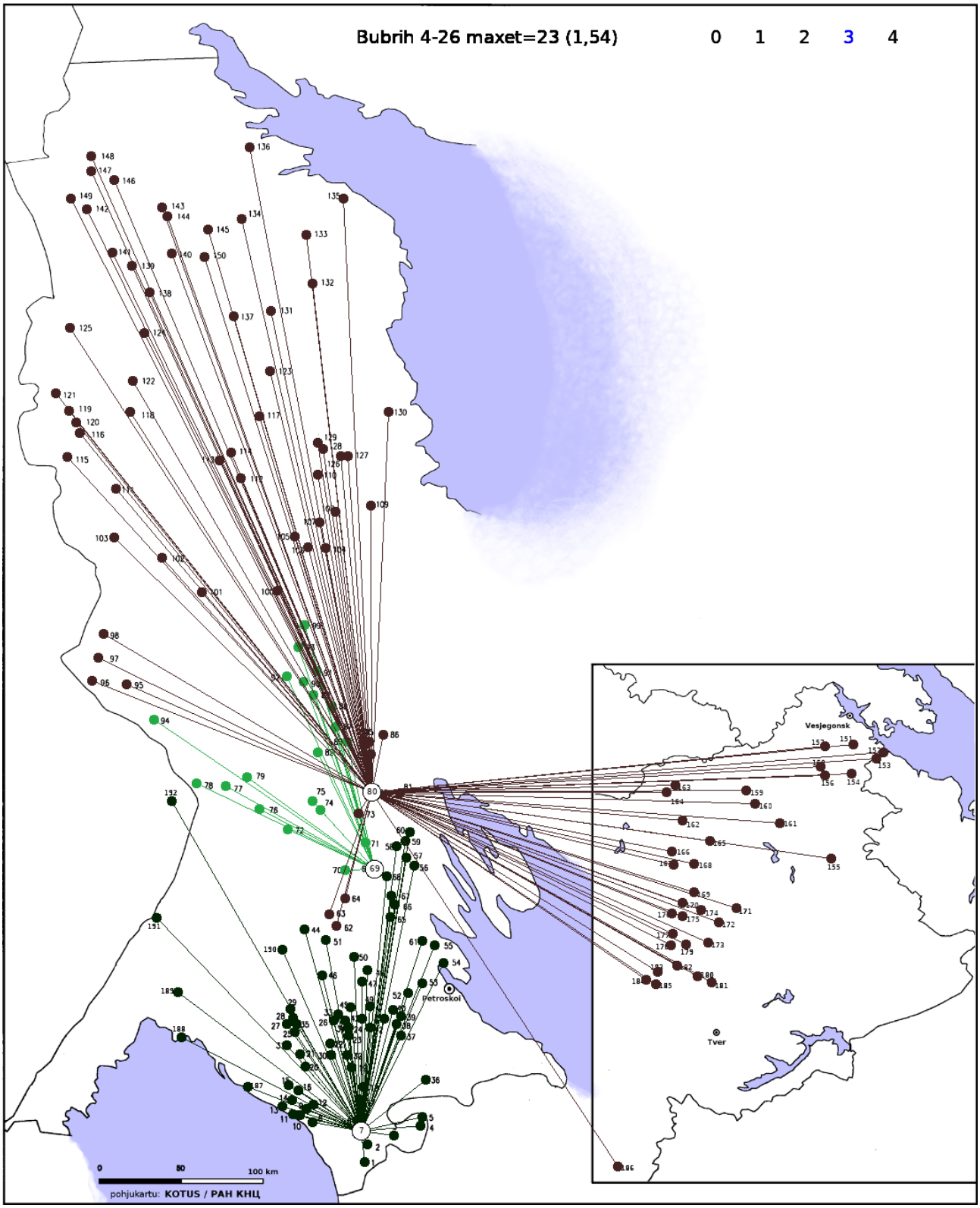
Cluster map 1a. Stressed-syllable diphthongs and vowel closing, level 1



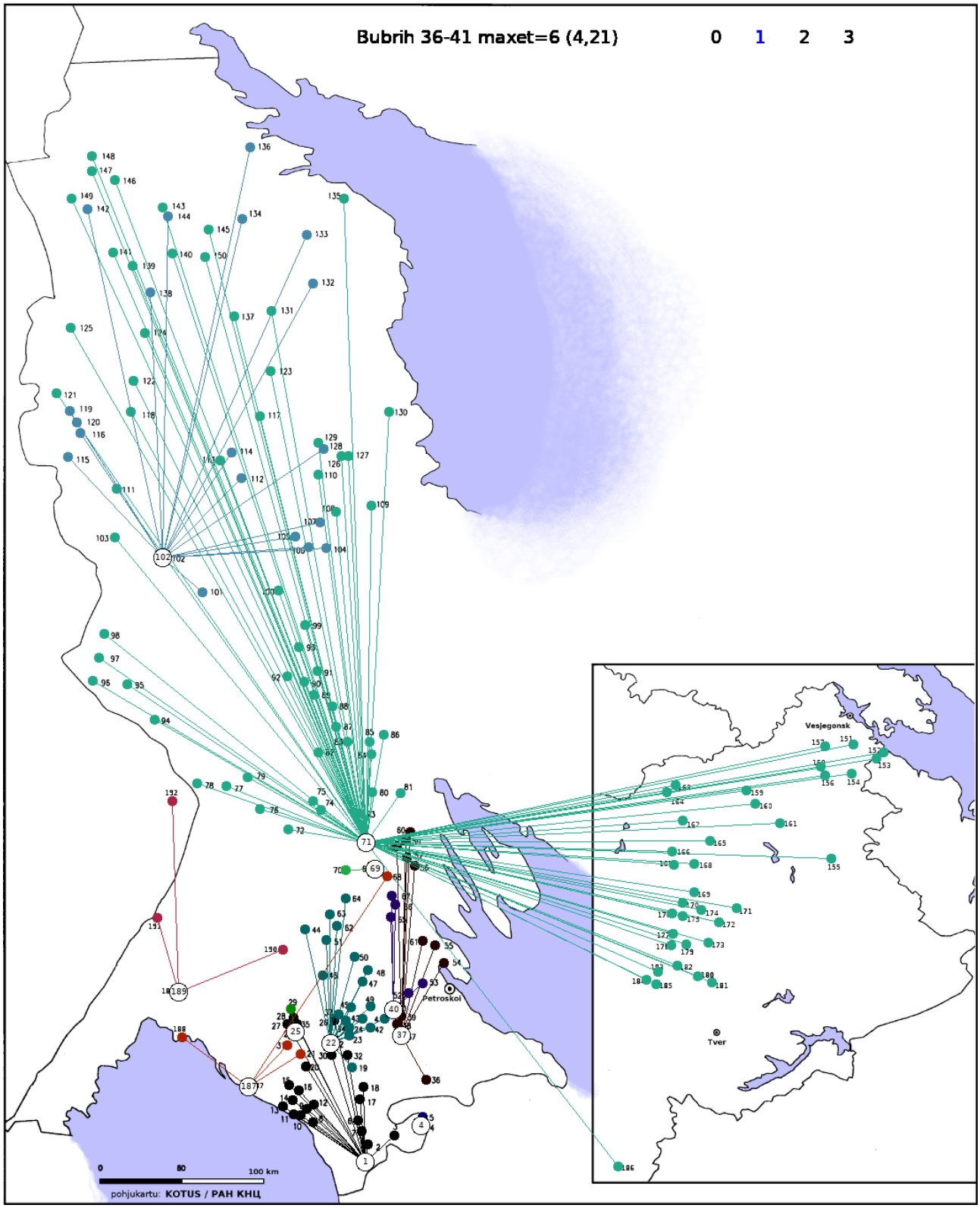
Cluster map 1b. Stressed-syllable diphthongs and vowel closing, level 2



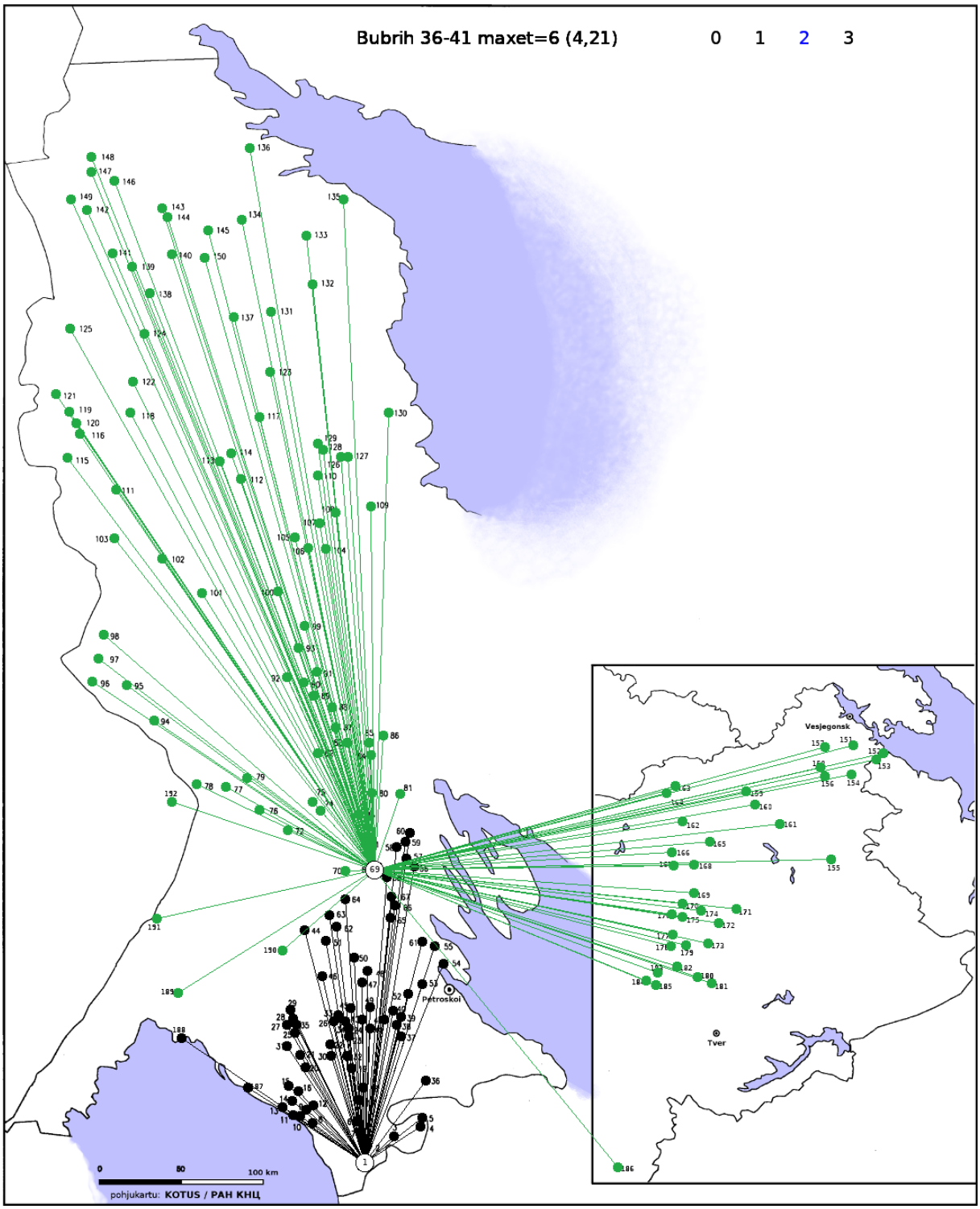
Cluster map 1c. Stressed-syllable diphthongs and vowel closing, level 3



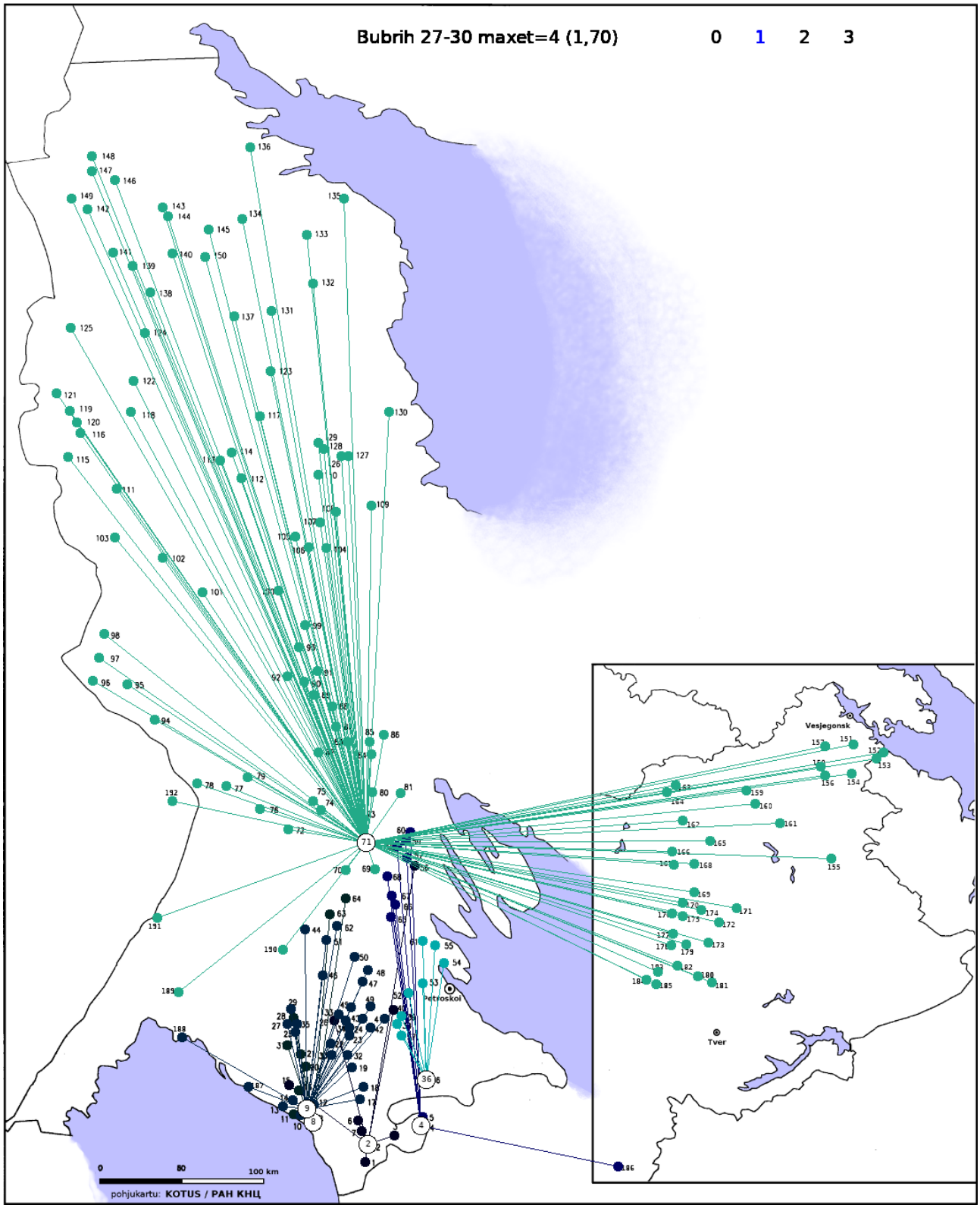
Cluster map 2a. Closing diphthongs, level 1



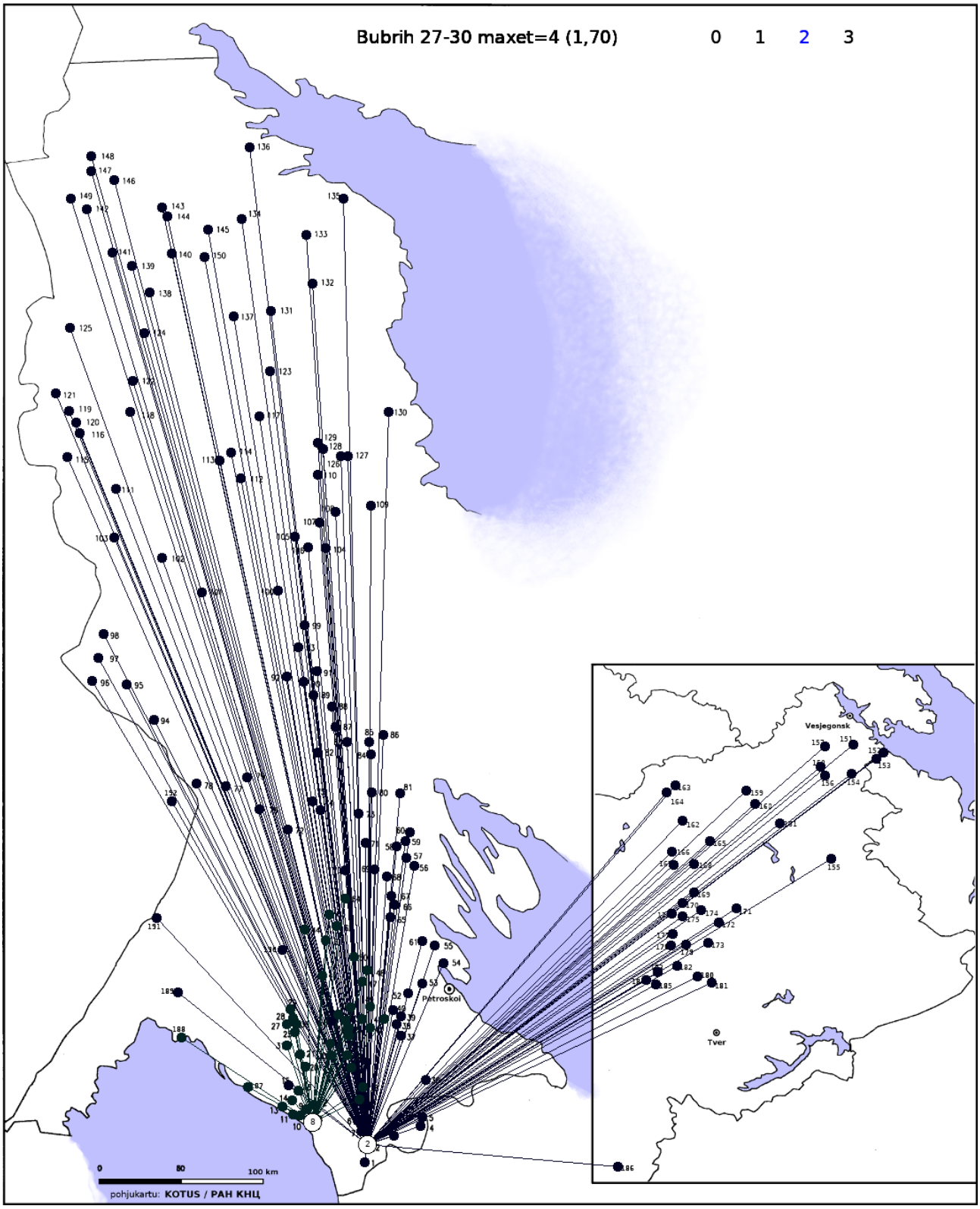
Cluster map 2b. Closing diphthongs, level 2



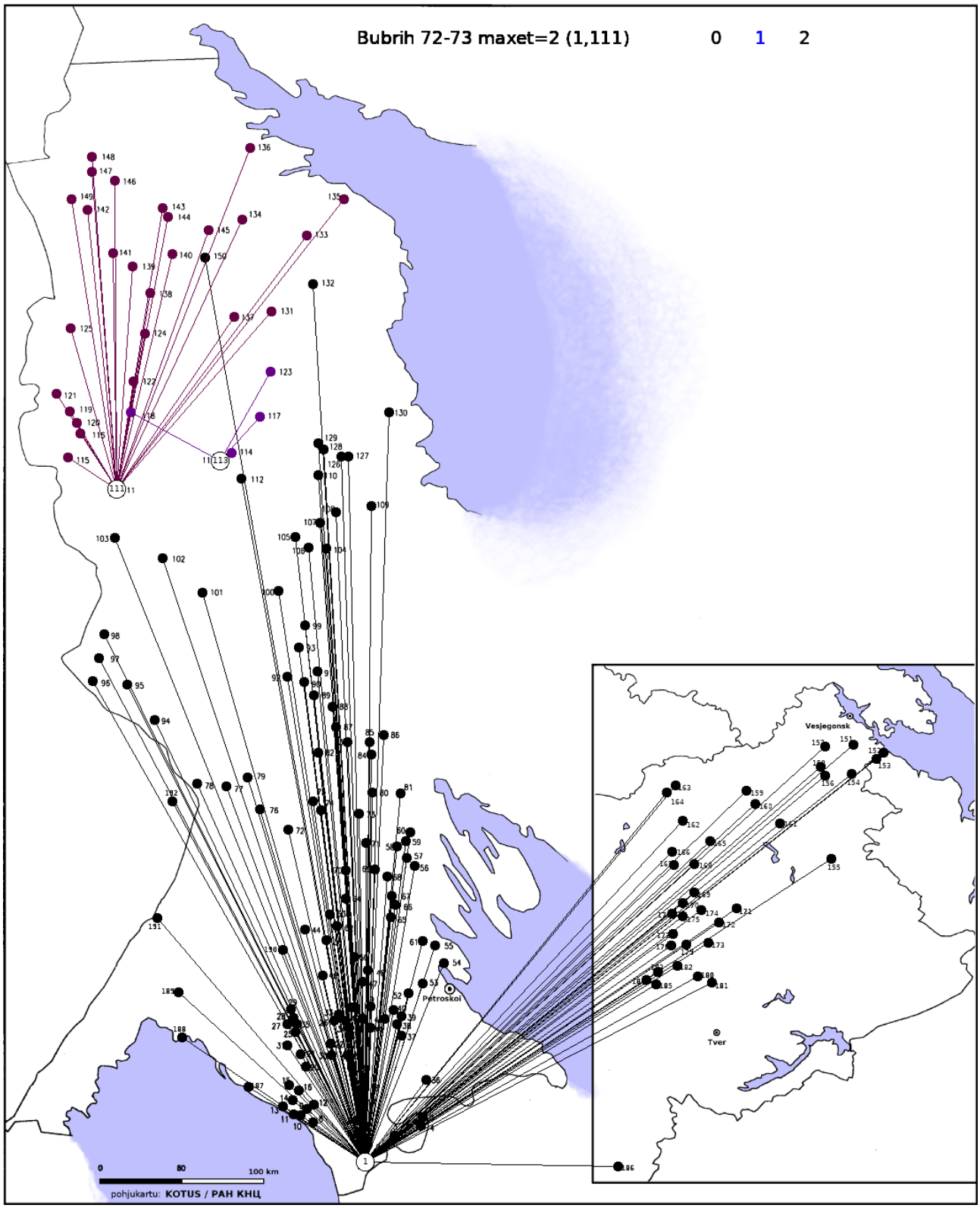
Cluster map 3a. Word-final *a*, *ä*, level 1



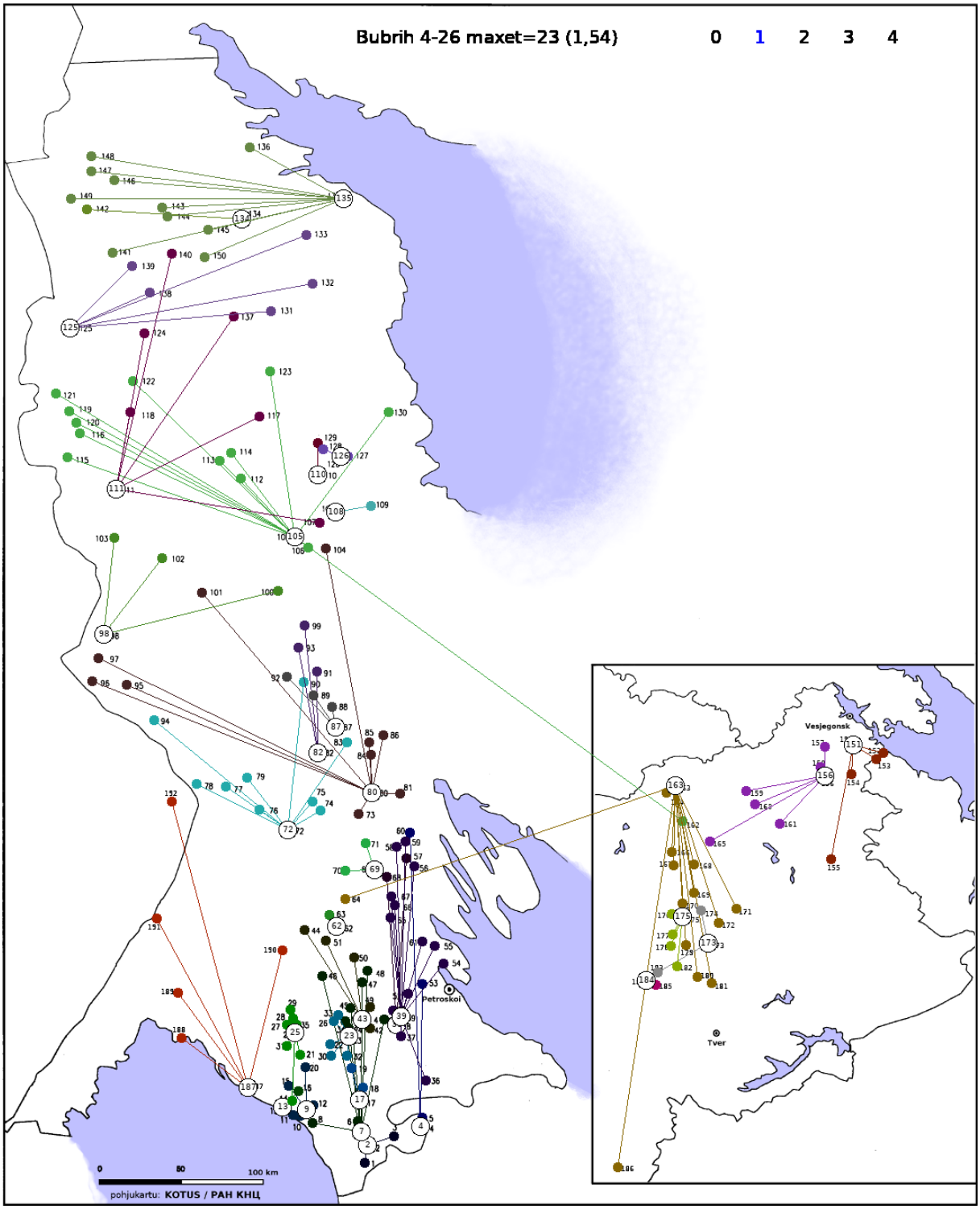
Cluster map 3b. Word-final *a*, *ä*, level 2



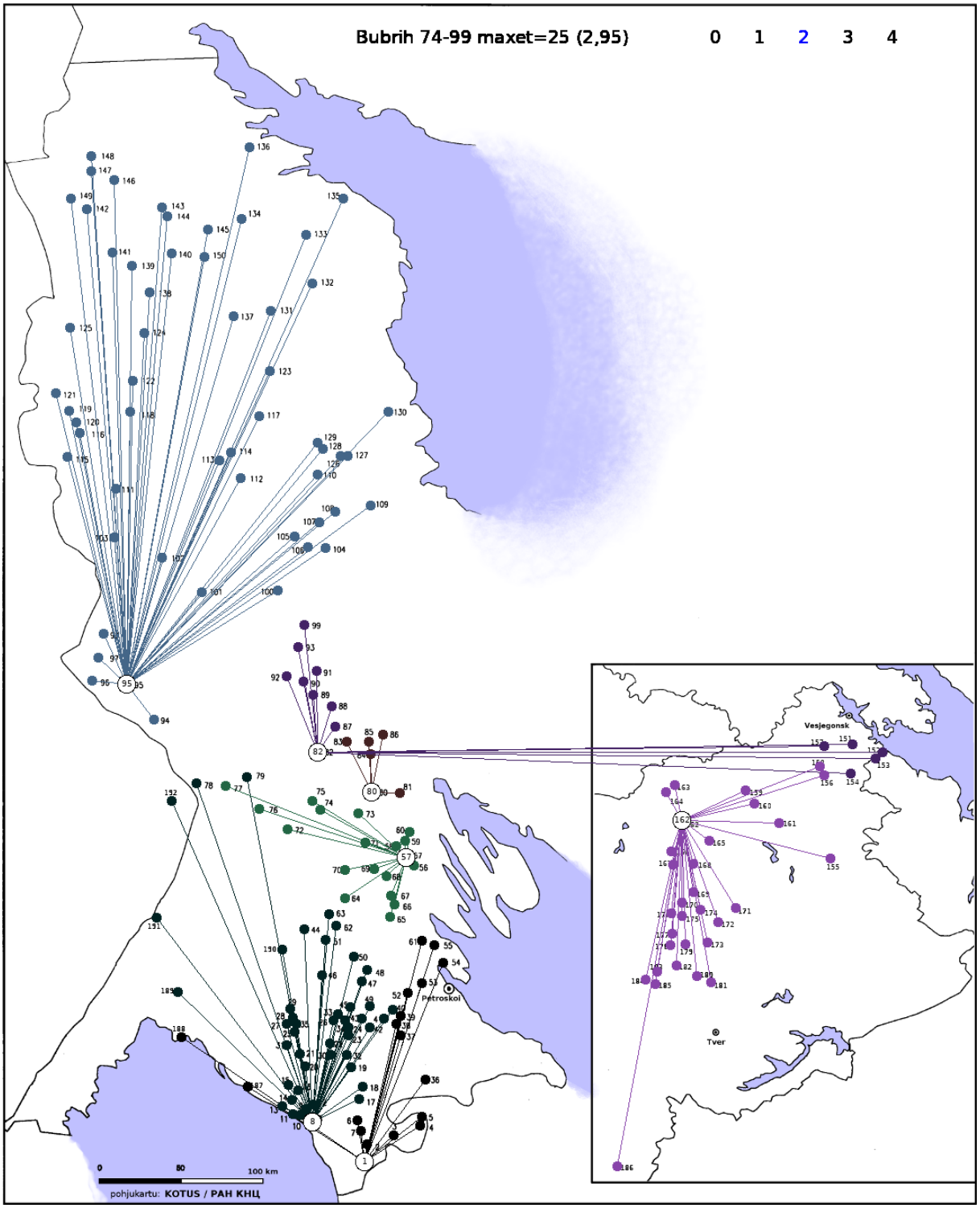
Cluster map 4. Voiced and voiceless consonants, level 1



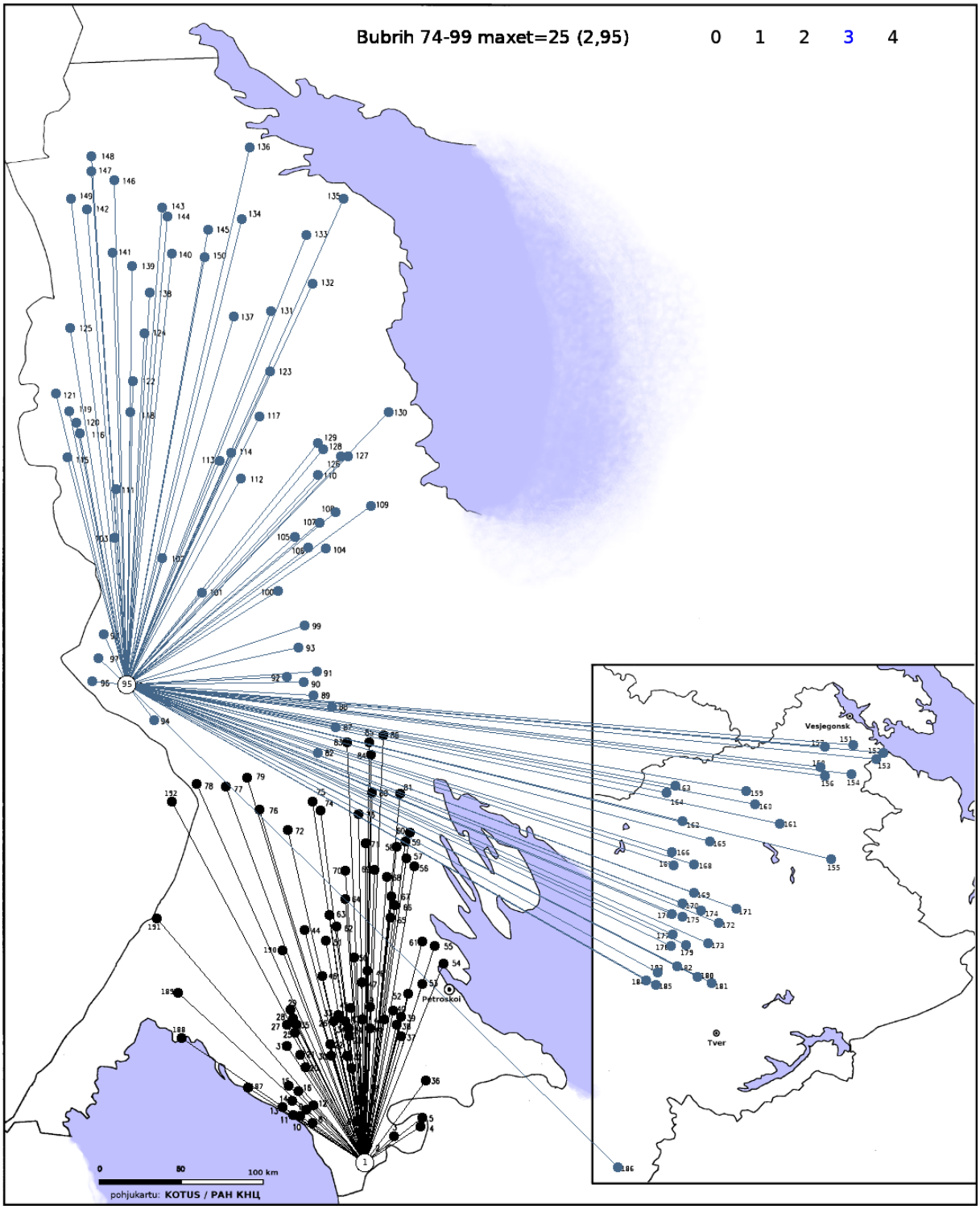
Cluster map 5a. Distribution of close and open sibilants, level 1



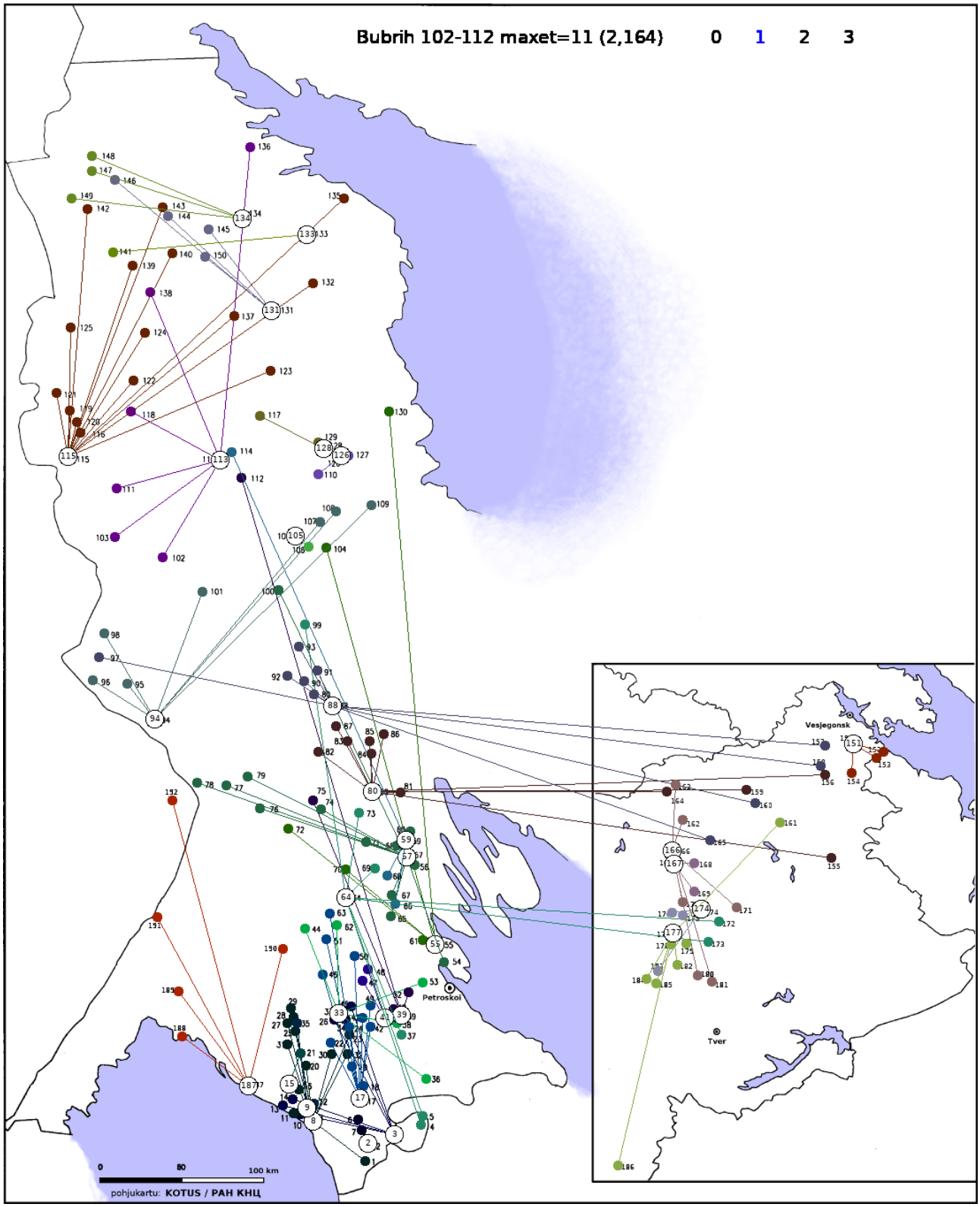
Cluster map 5b. Distribution of close and open sibilants, level 2



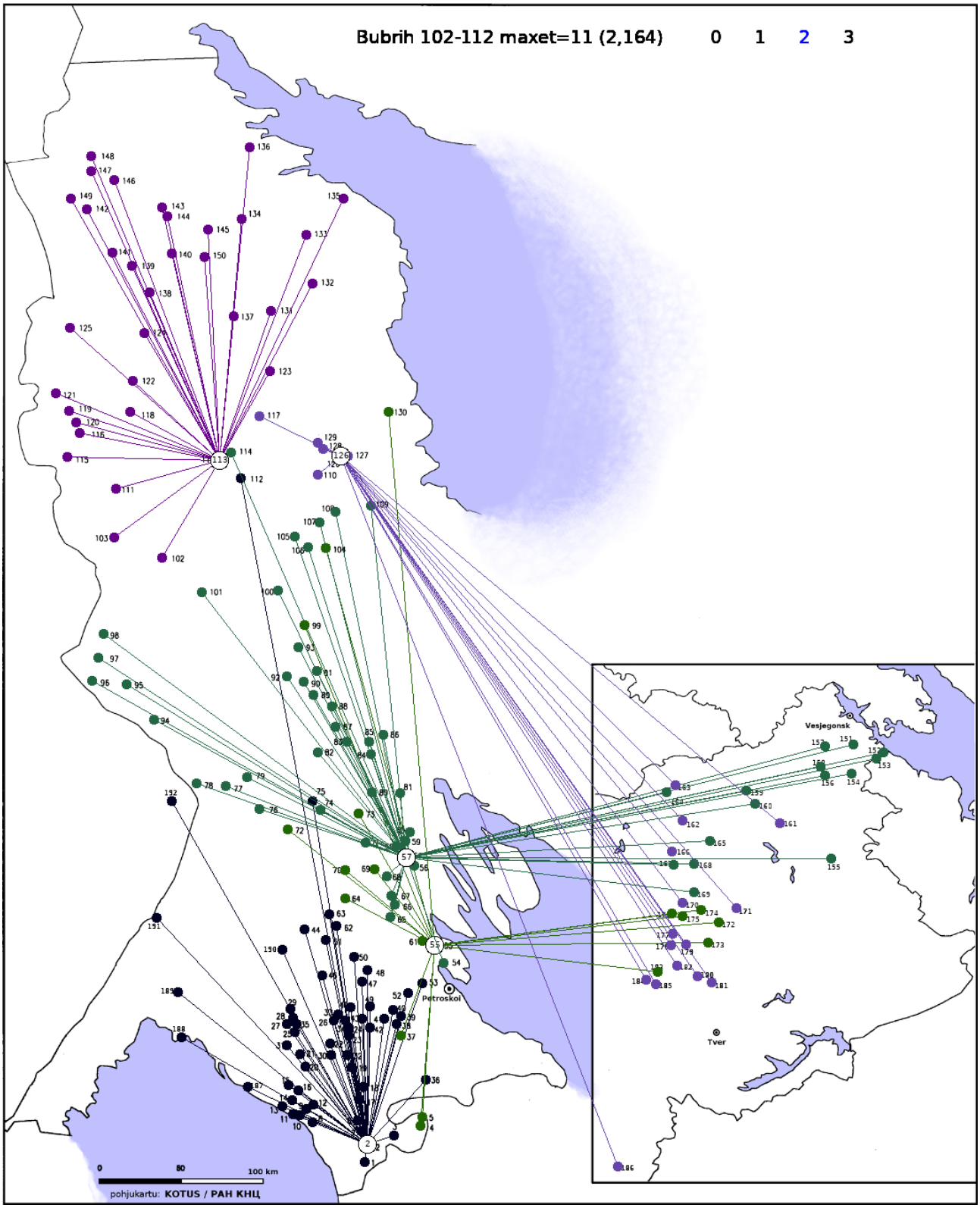
Cluster map 5c. Distribution of close and open sibilants, level 3



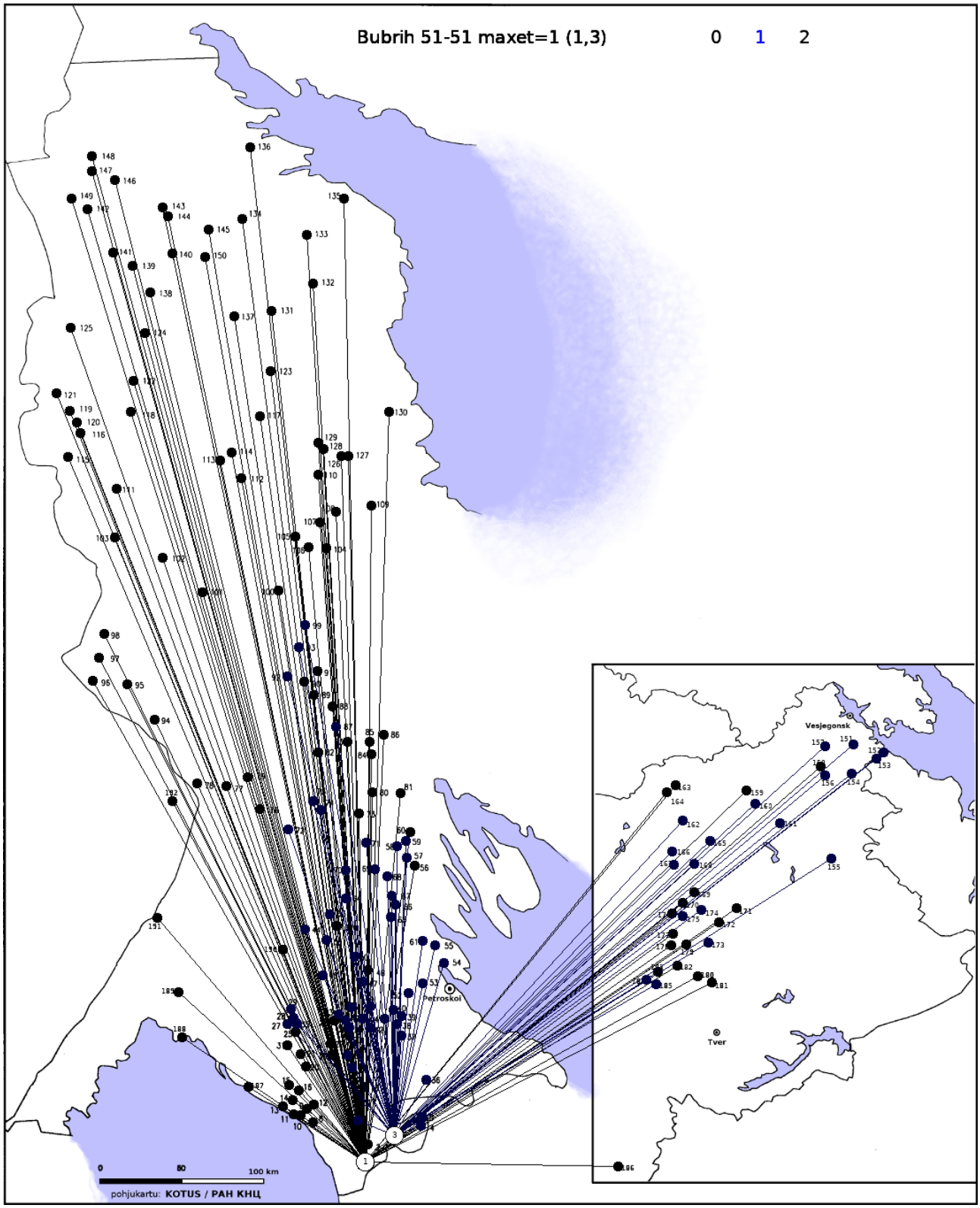
Cluster map 6a. Consonant palatalisation, level 1



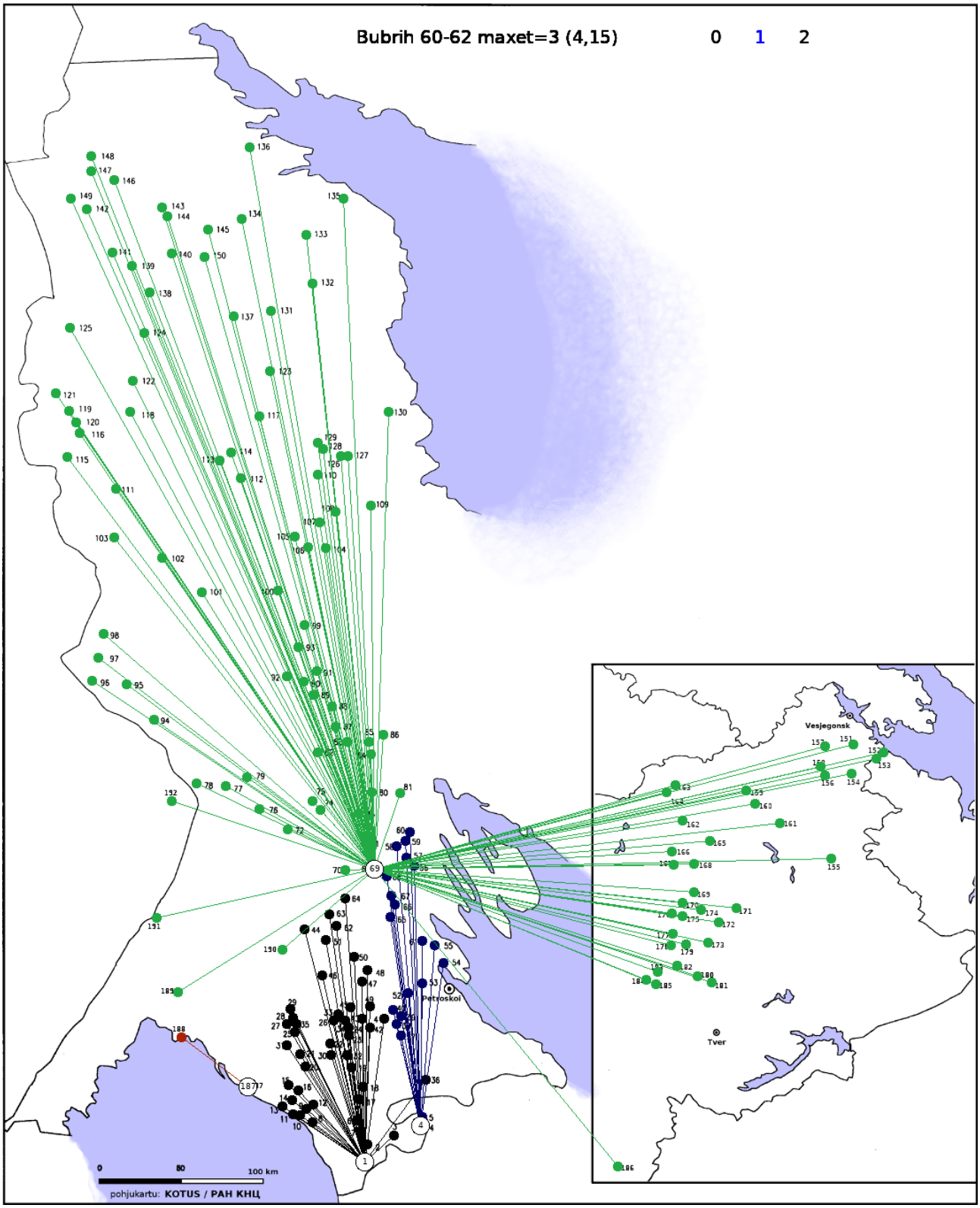
Cluster map 6b. Consonant palatalisation, level 2



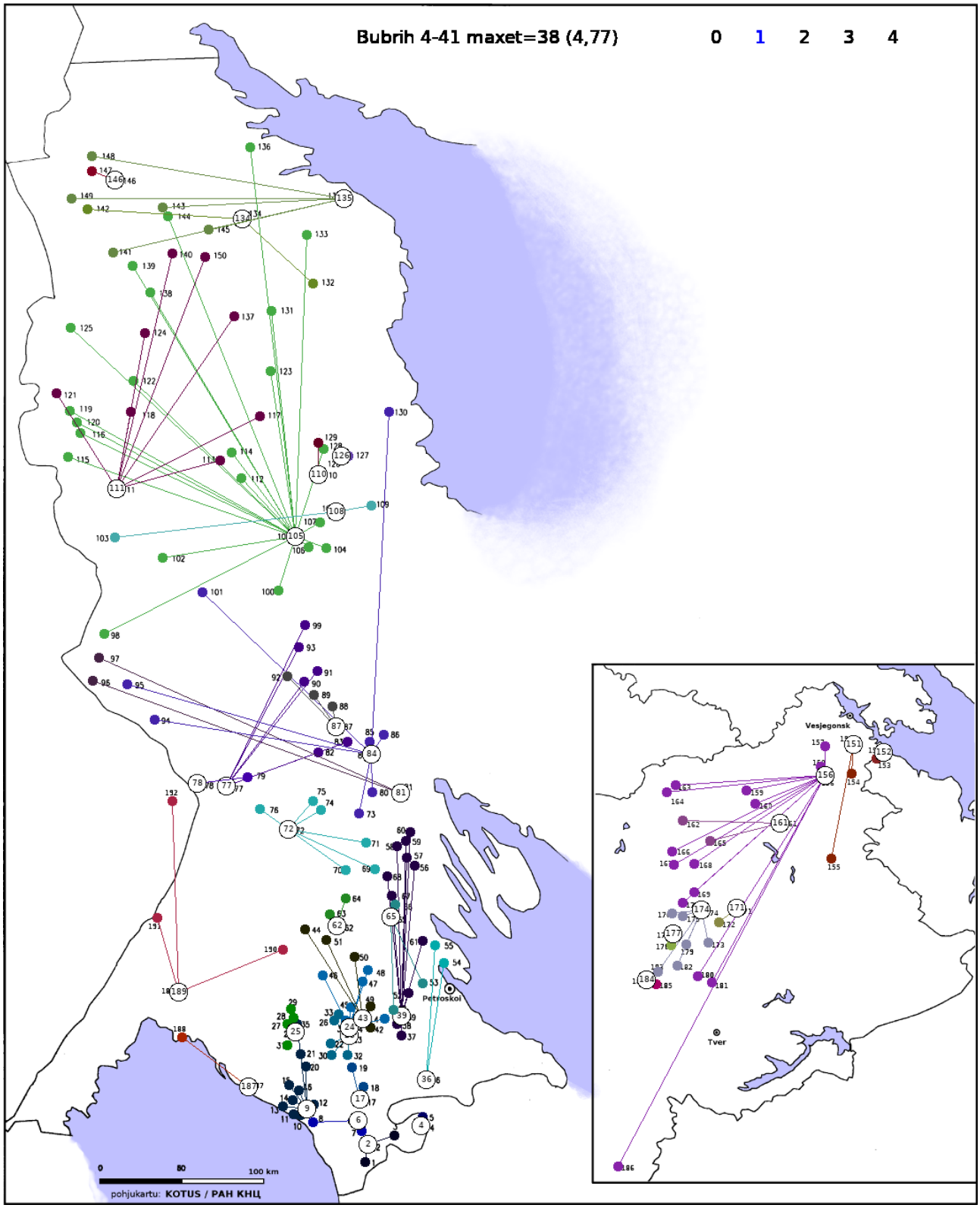
Cluster map 7. Metathetic *nh* / *hn*, level 1



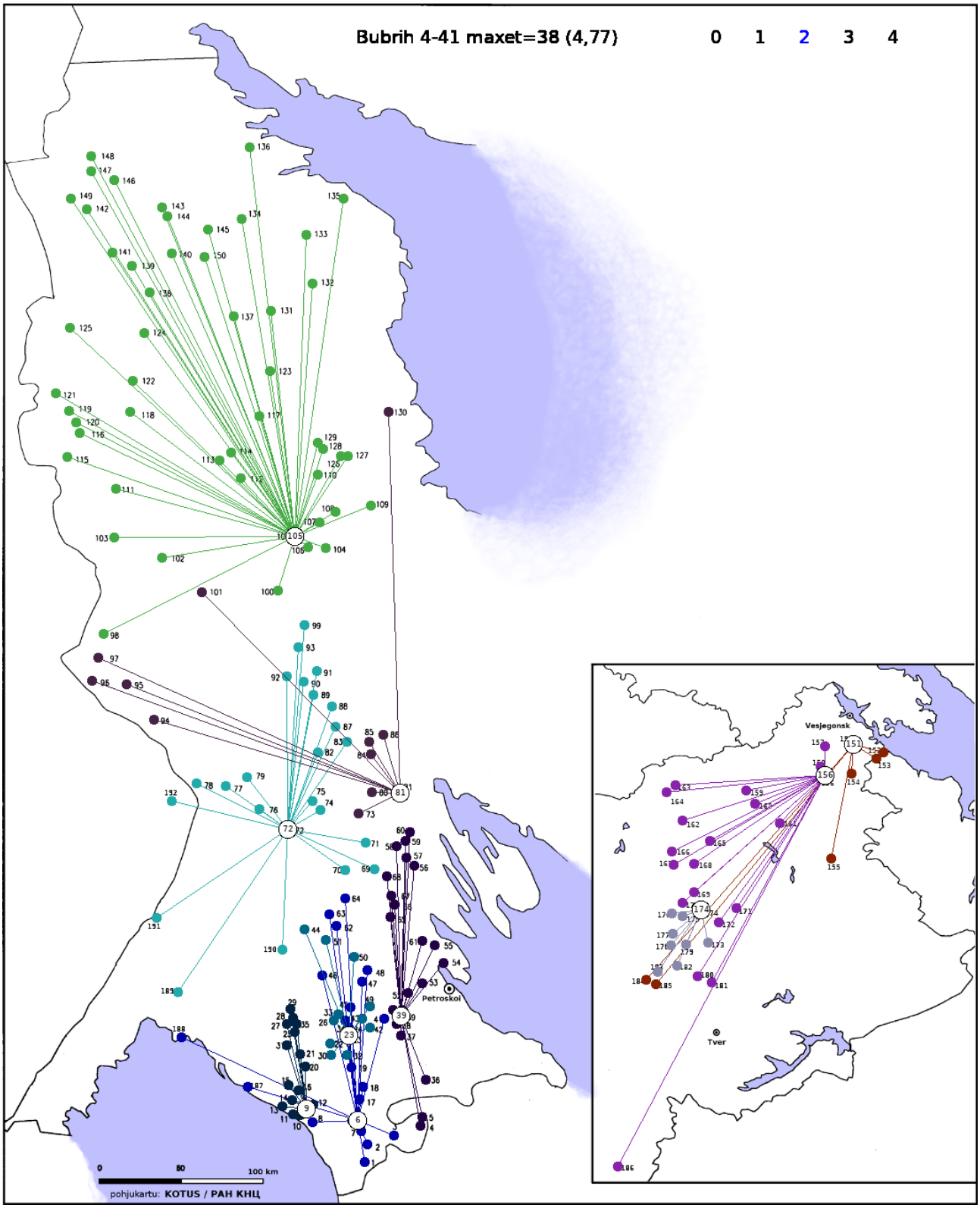
Cluster map 8. Quantitative gradation of plosives after voiceless consonant, level 1



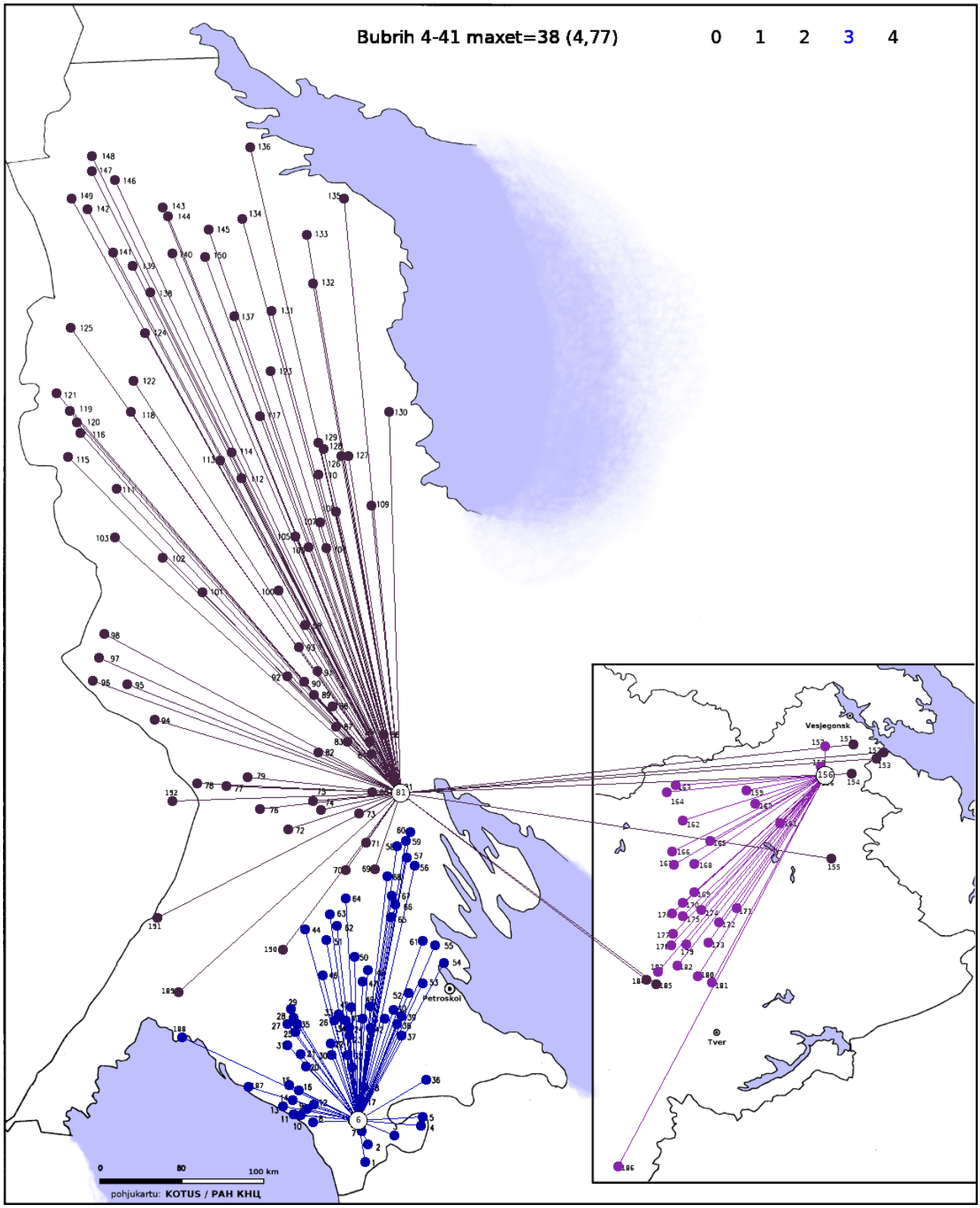
Cluster map 9a. Vowels, level 1



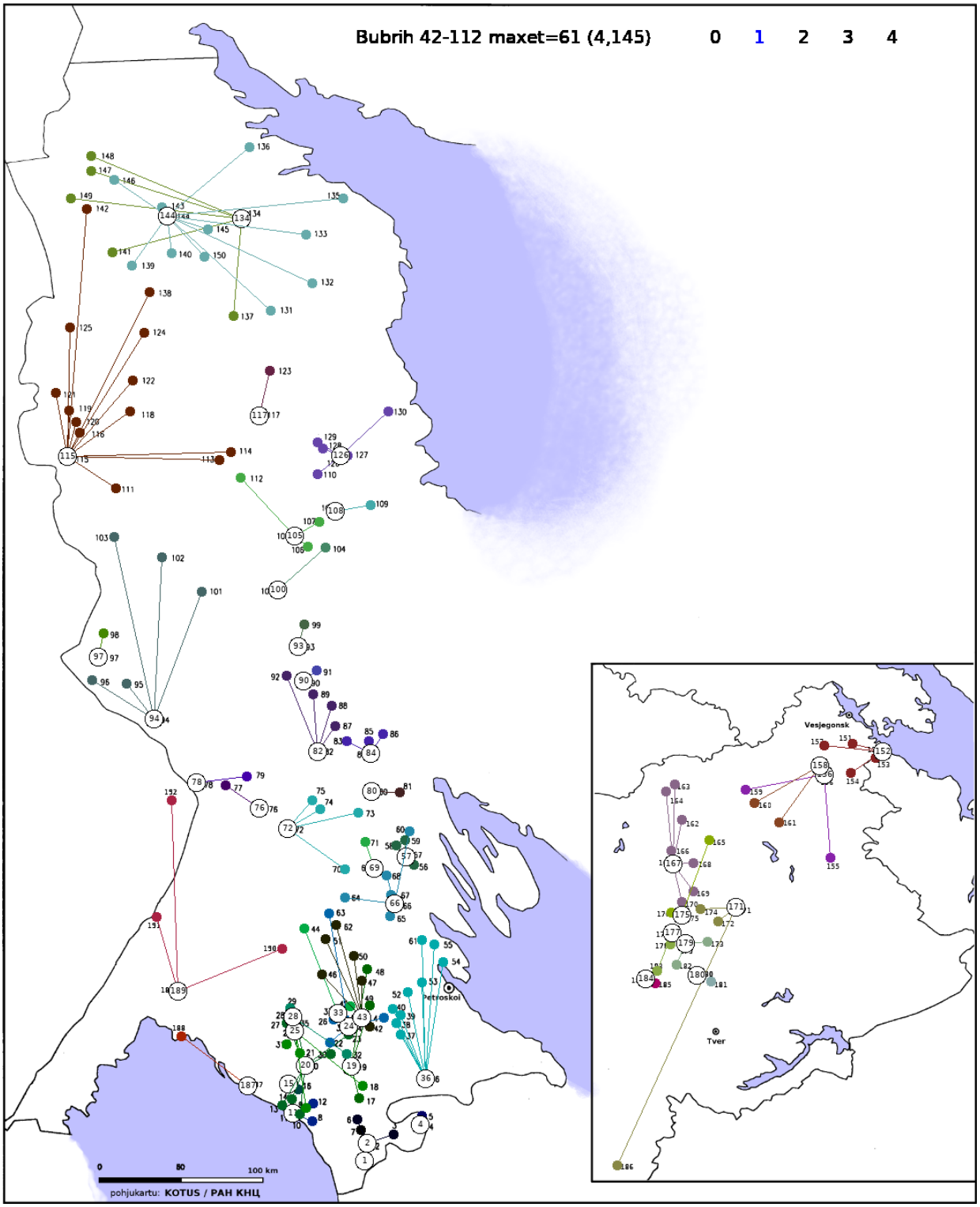
Cluster map 9b. Vowels, level 2



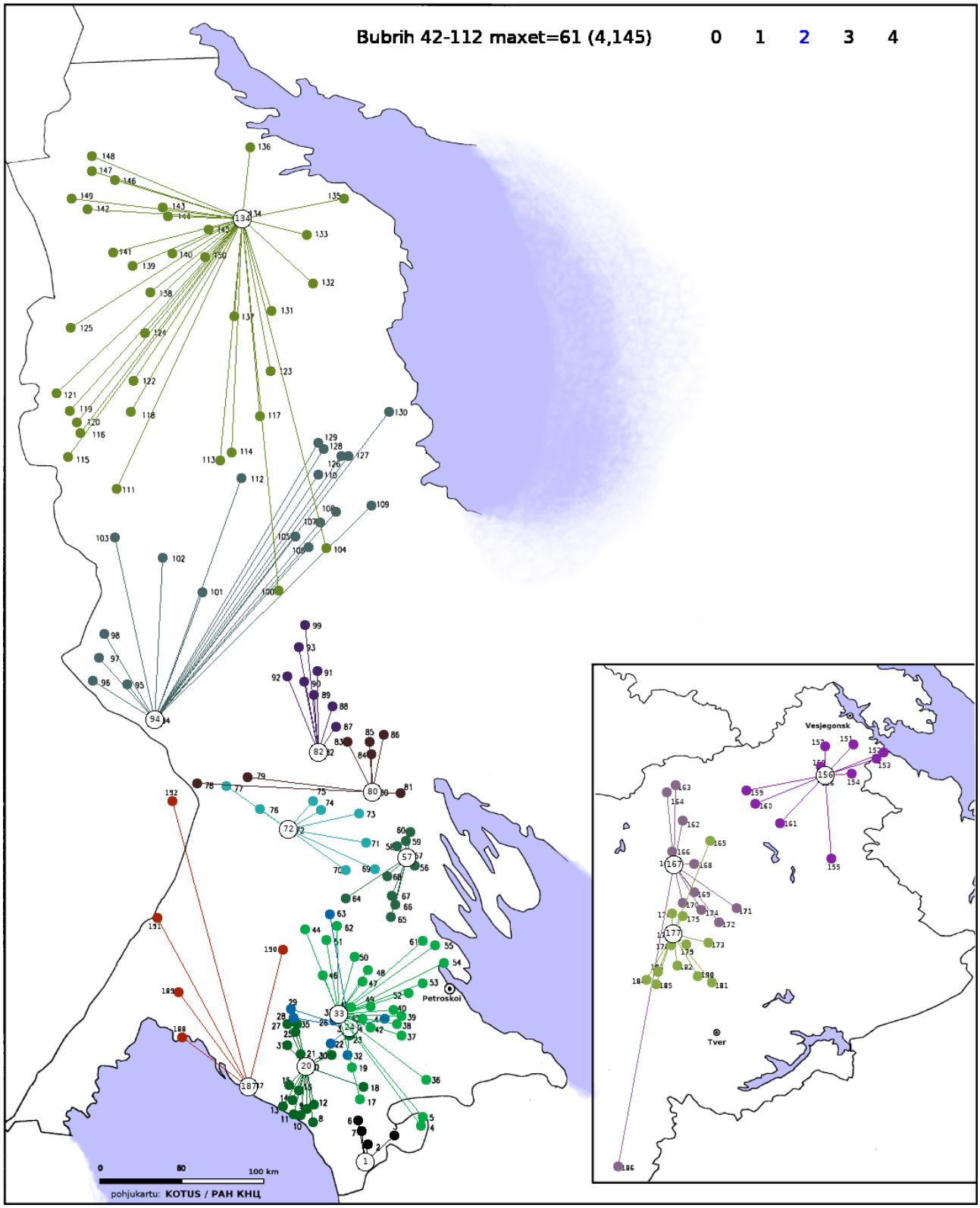
Cluster map 9c. Vowels, level 3



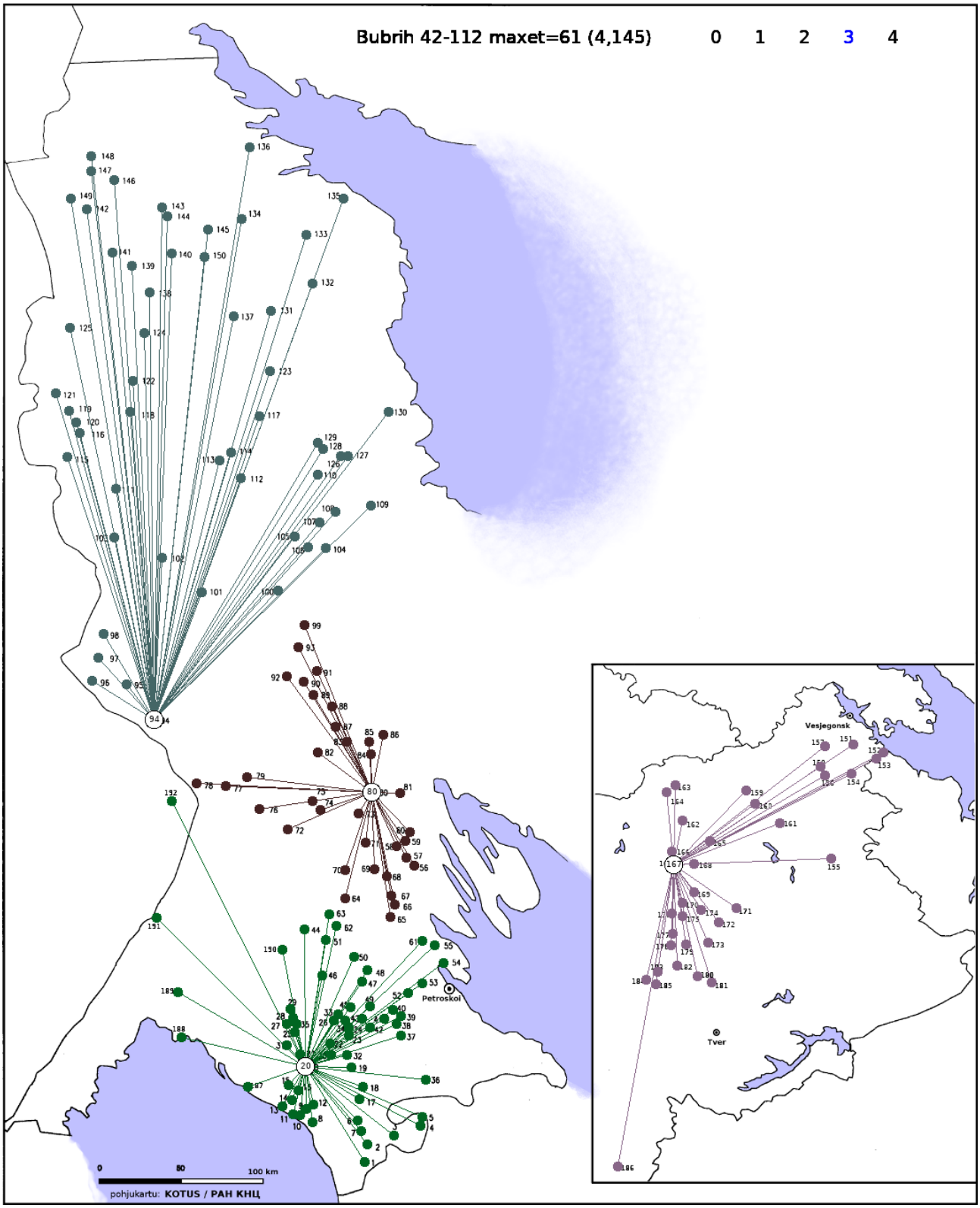
Cluster map 10a. Consonants, level 1



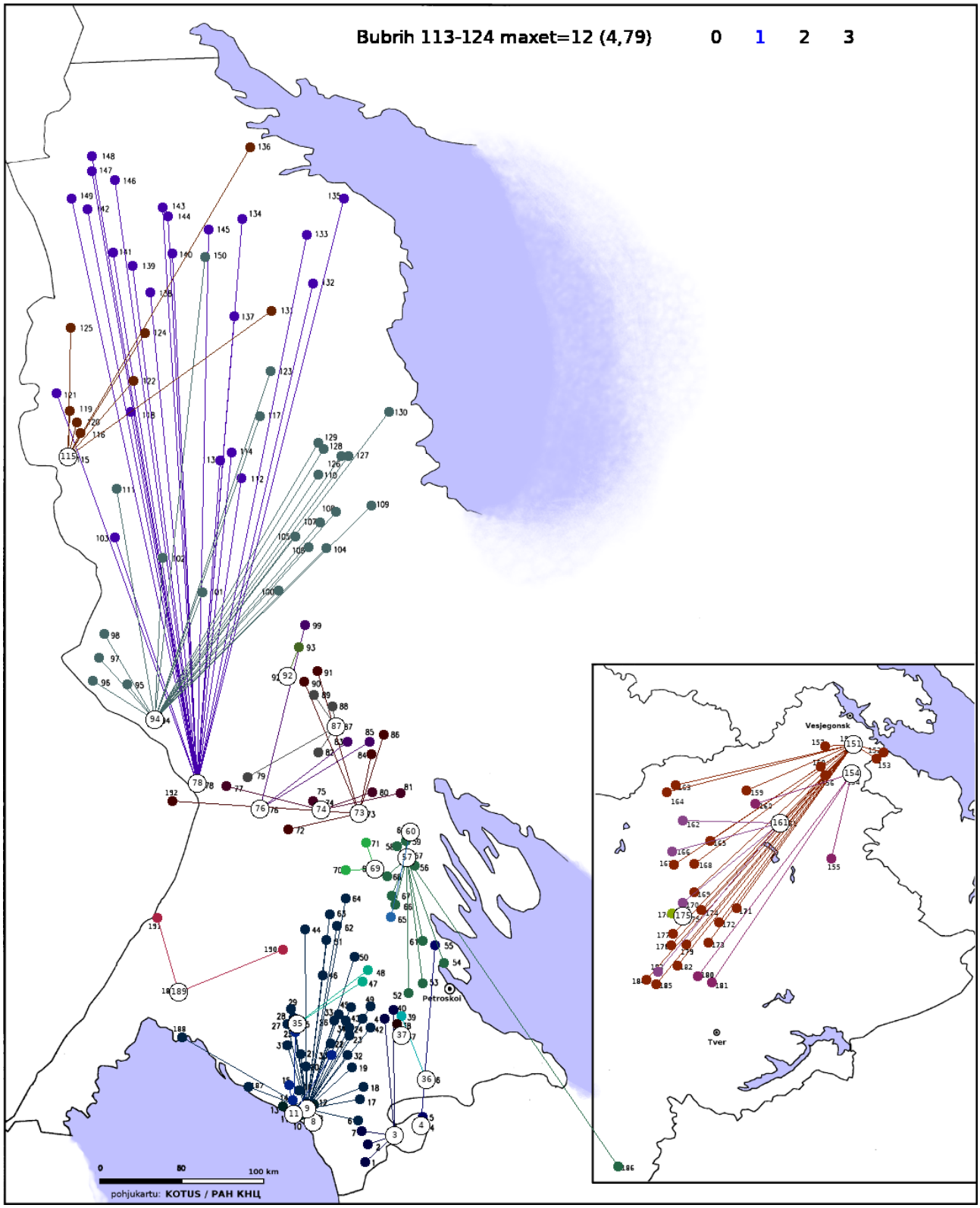
Cluster map 10b. Consonants, level 2



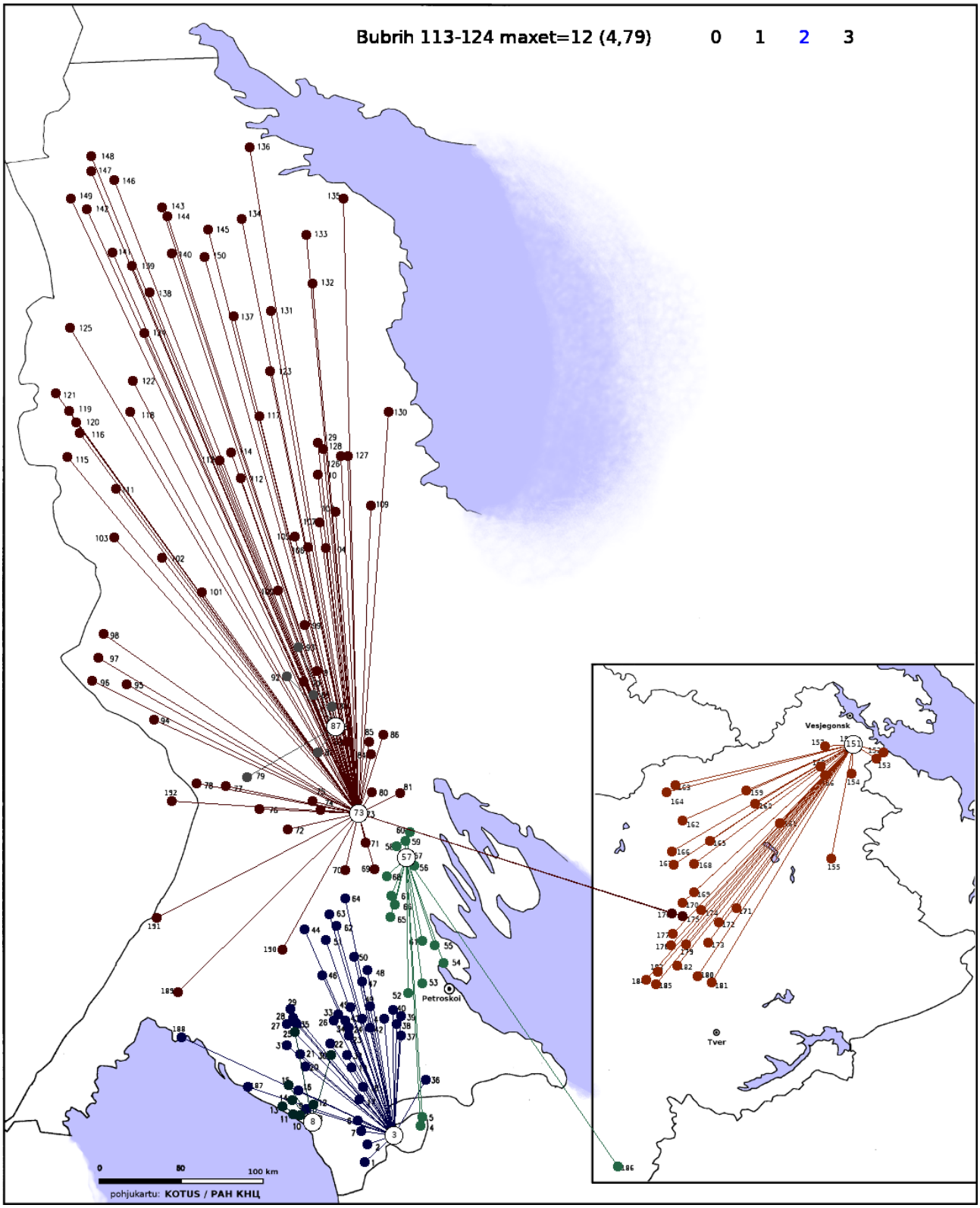
Cluster map 10c. Consonants, level 3



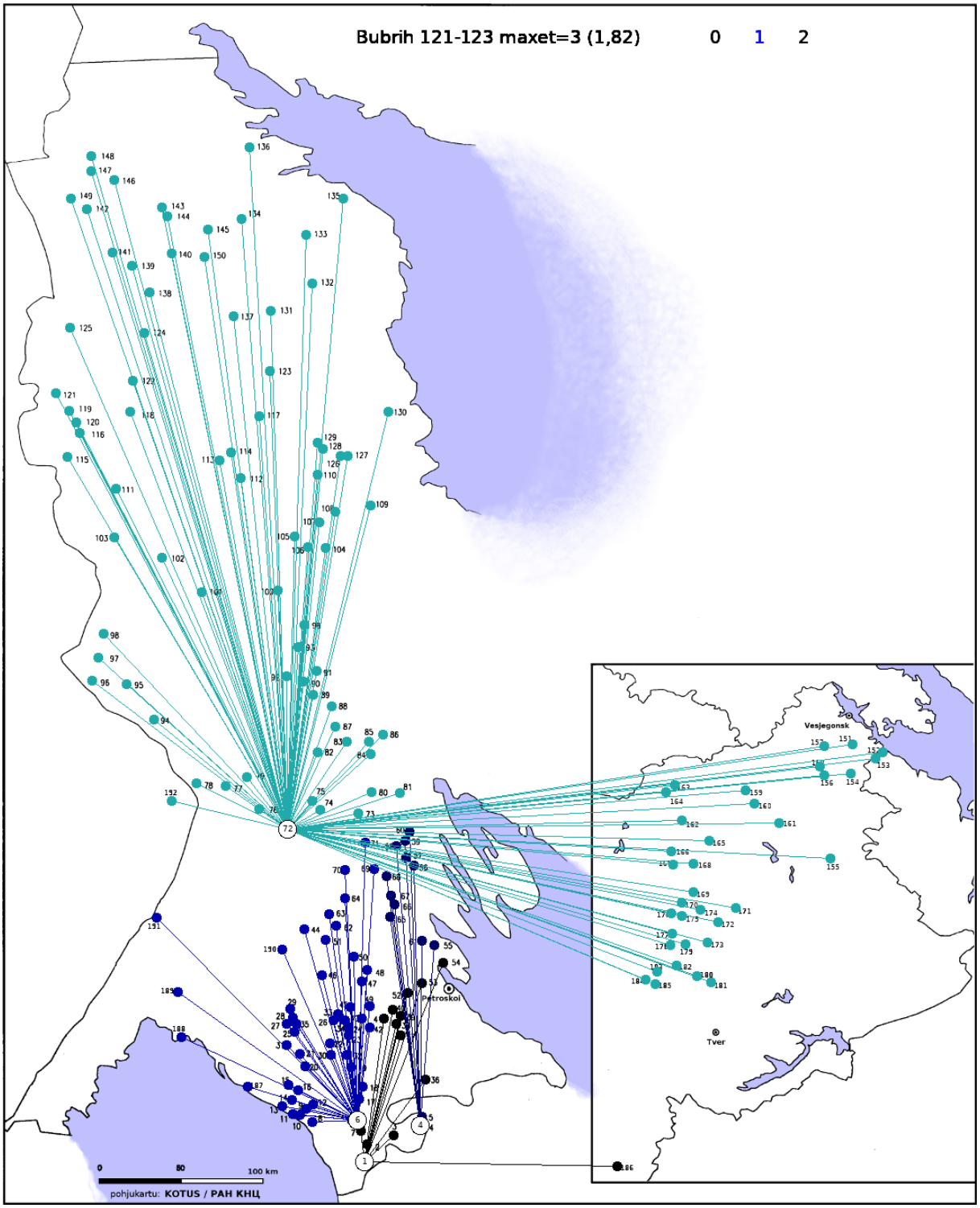
Cluster map 11a. Formation of oblique cases, level 1



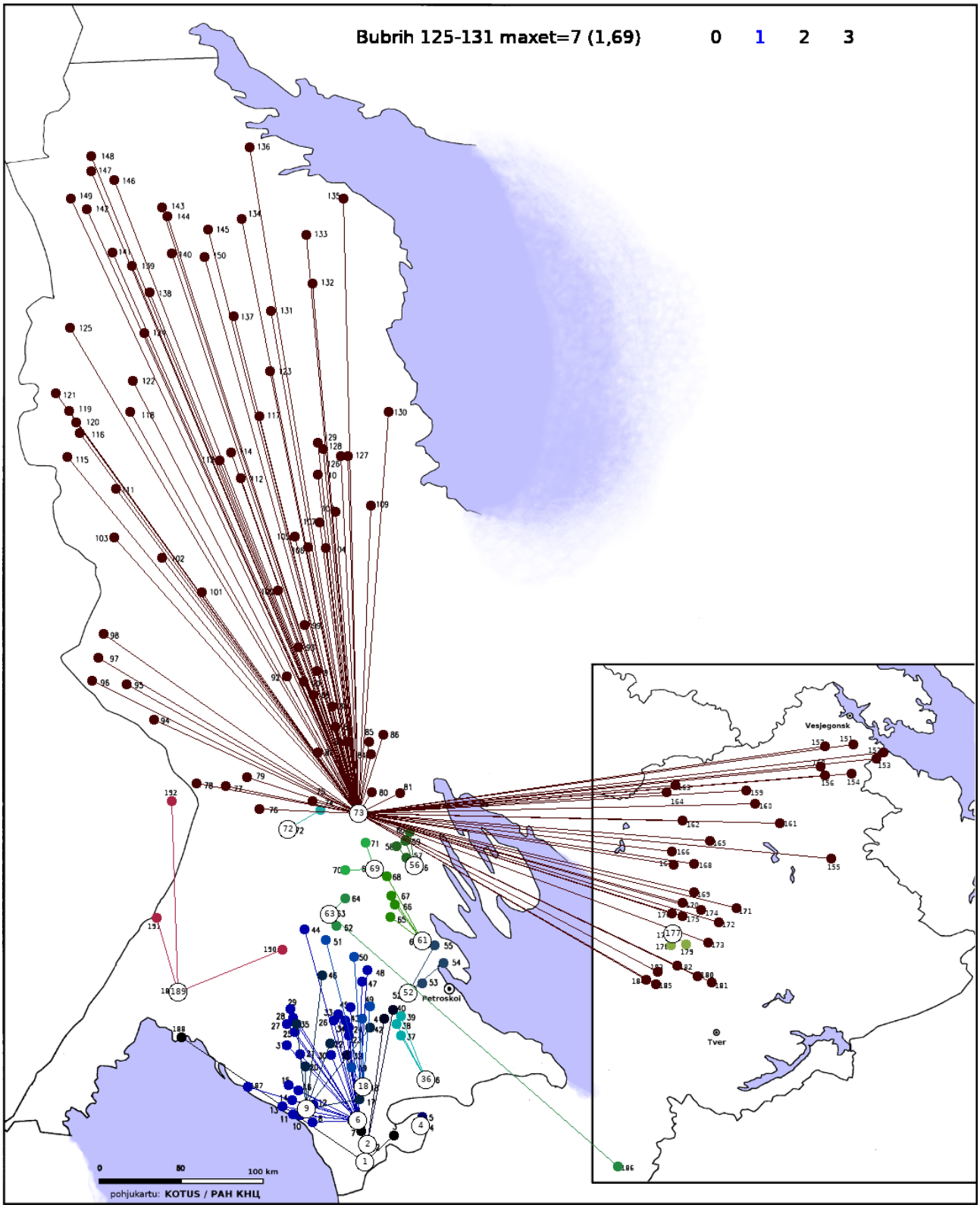
Cluster map 11b. Formation of oblique cases, level 1



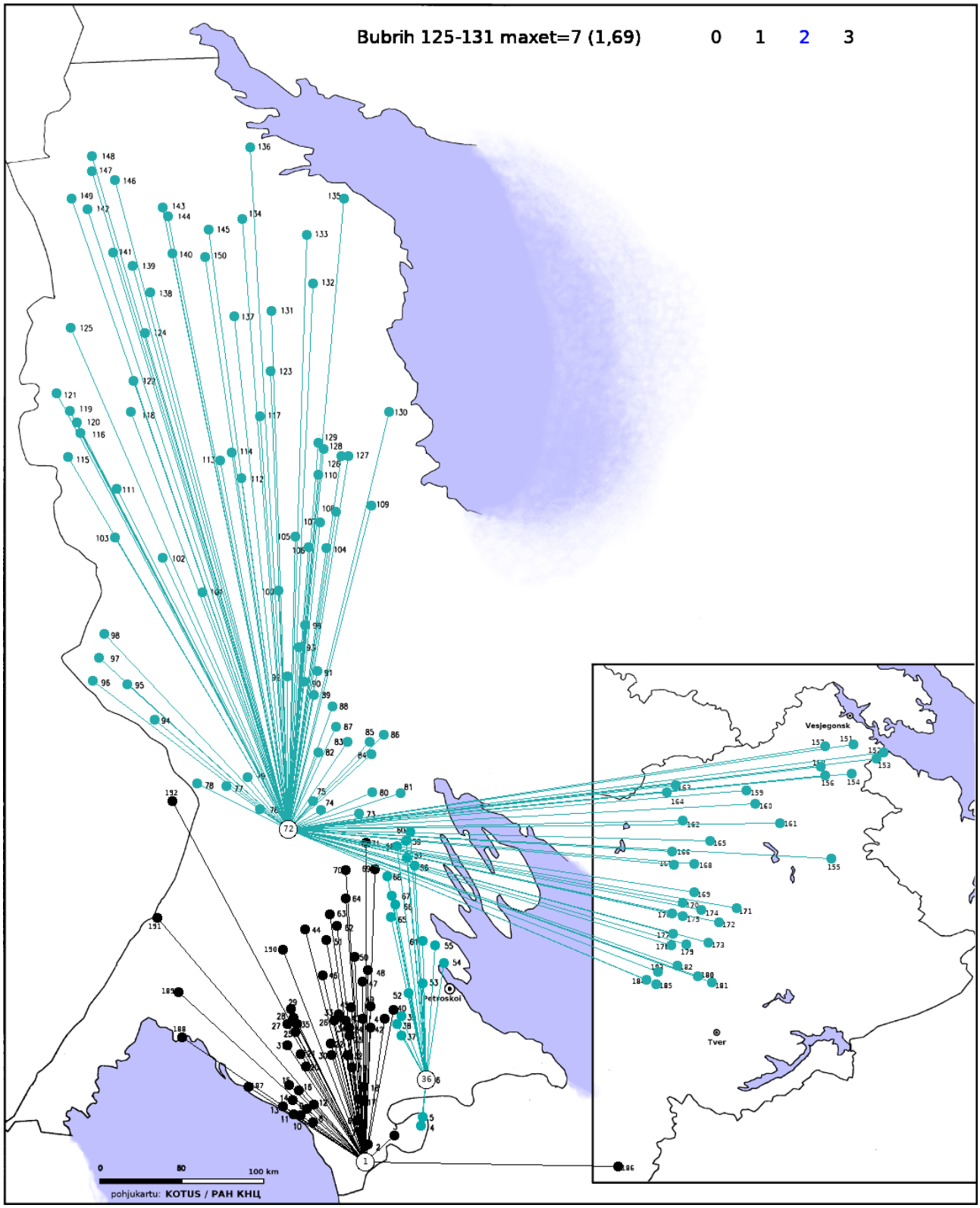
Cluster map 12. Formation of local cases, level 1



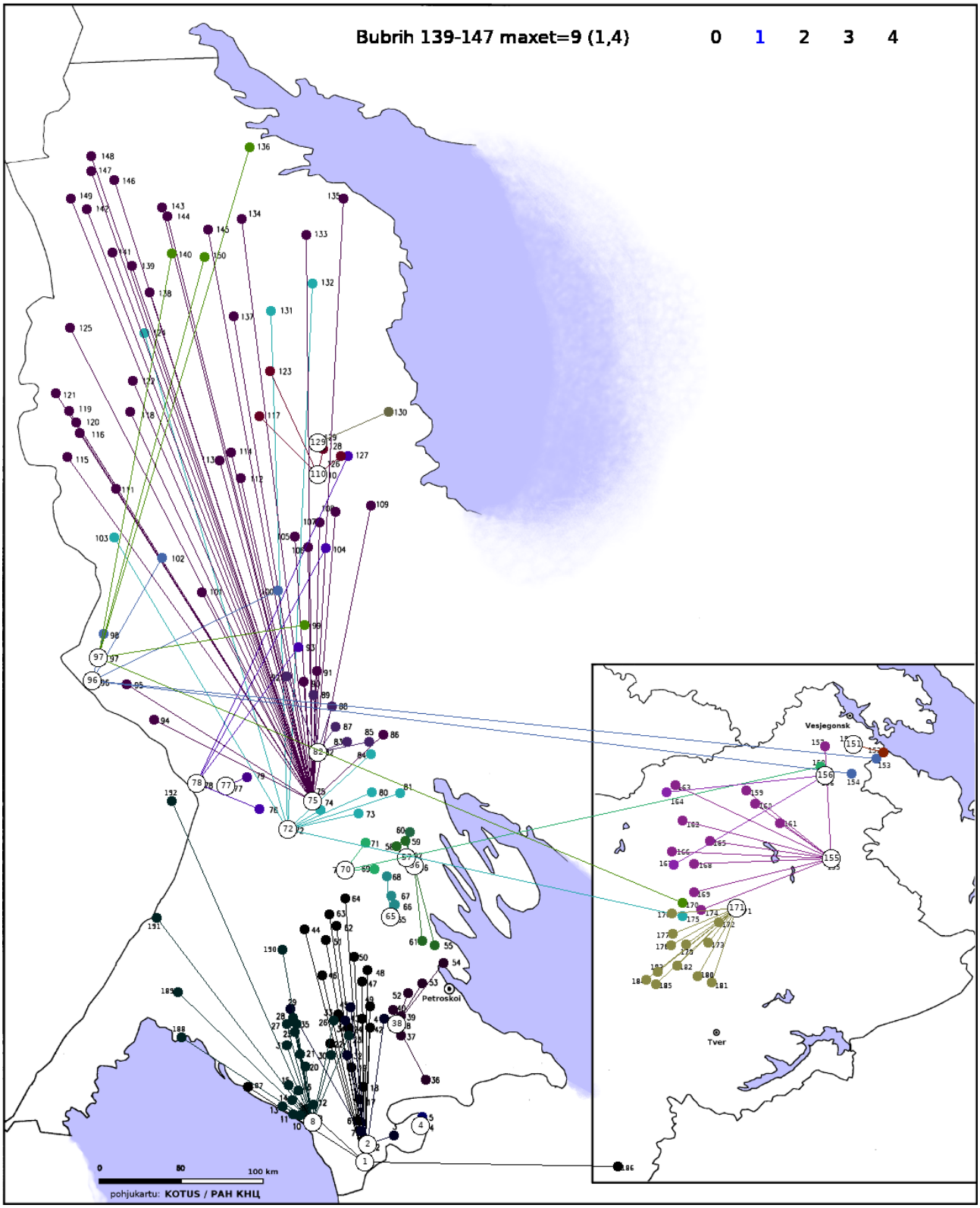
Cluster map 13a. Inflection of personal pronouns, level 1



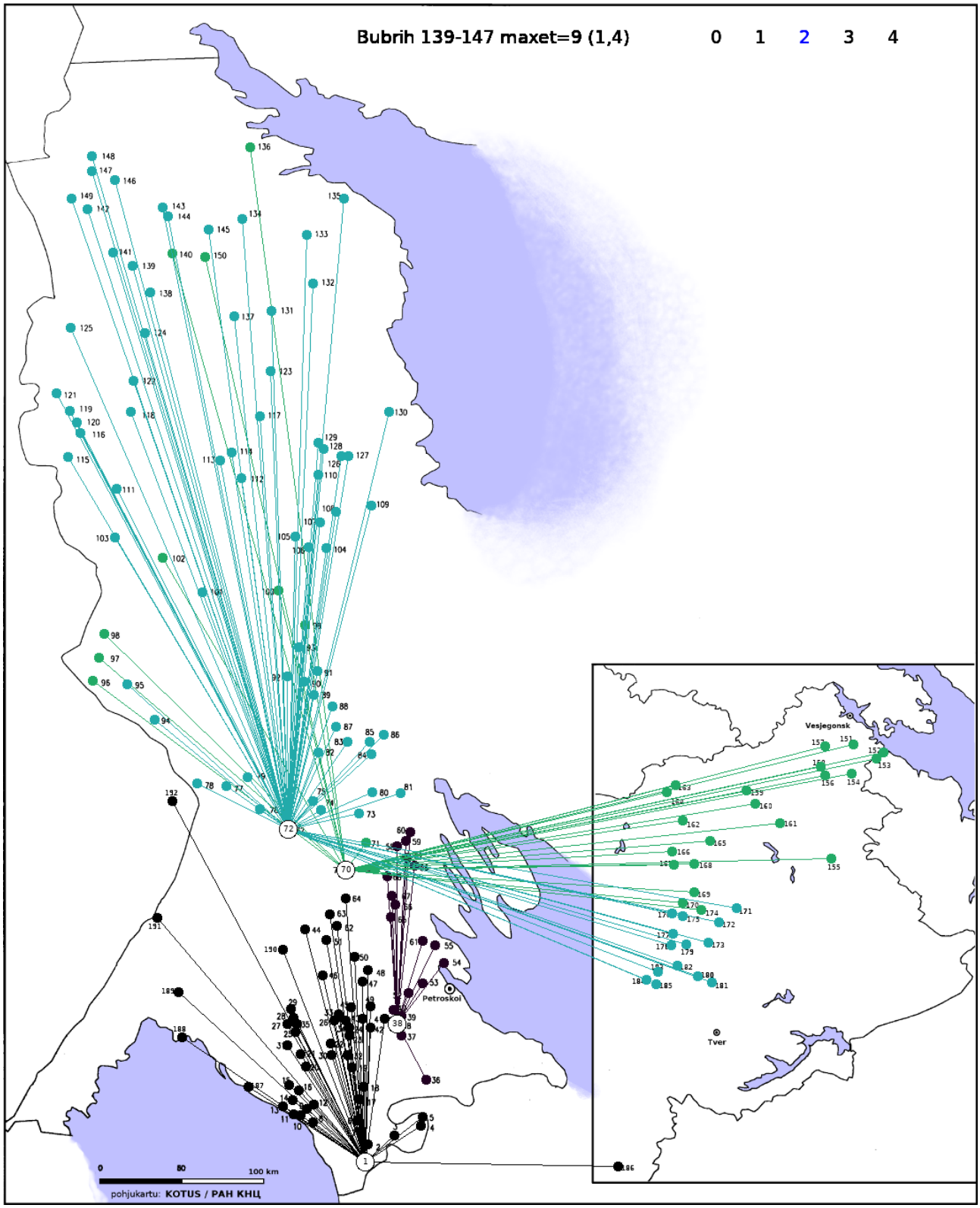
Cluster map 13b. Inflection of personal pronouns, level 2



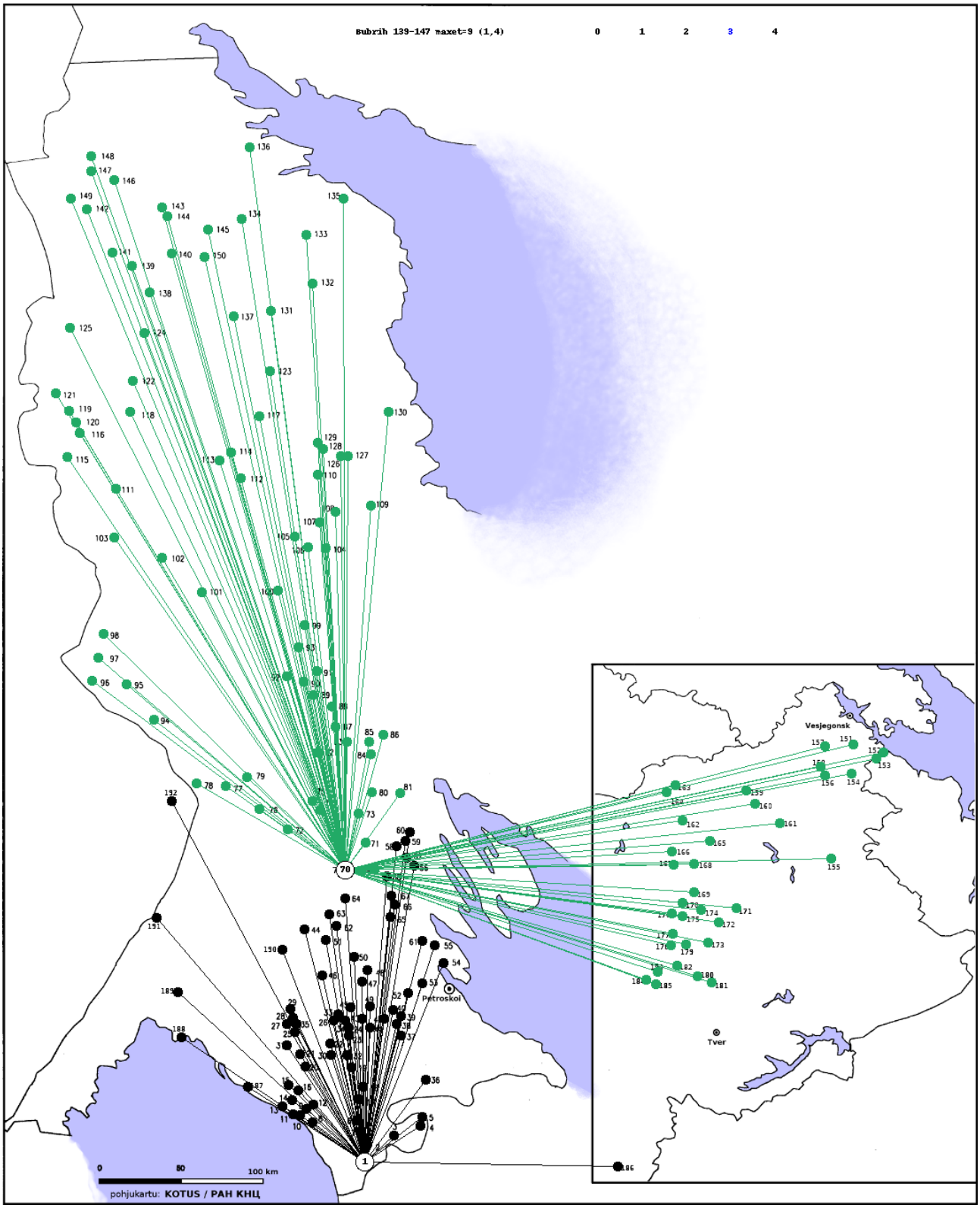
Cluster map 14a. Personal verb endings, level 1



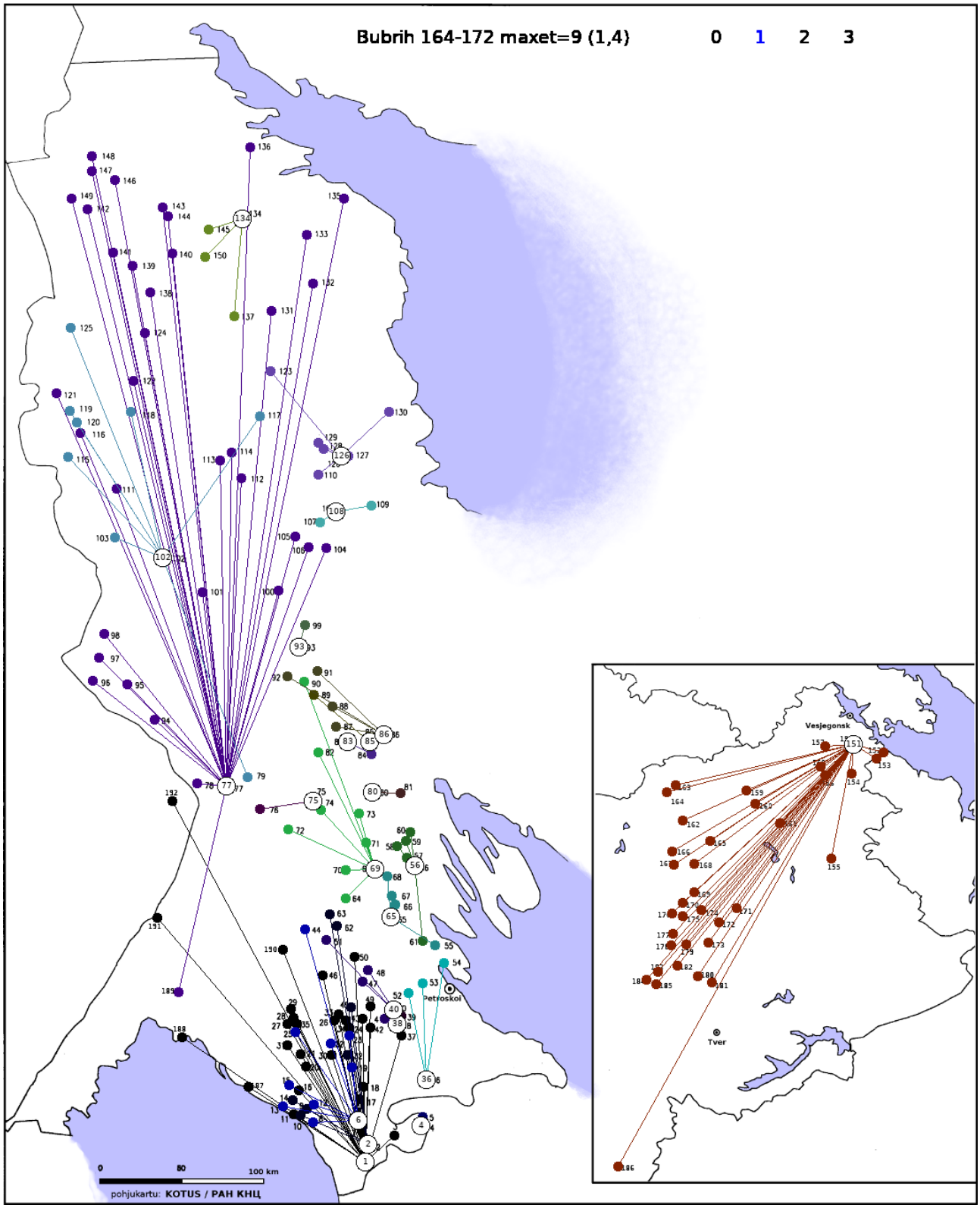
Cluster map 14b. Personal verb endings, level 2



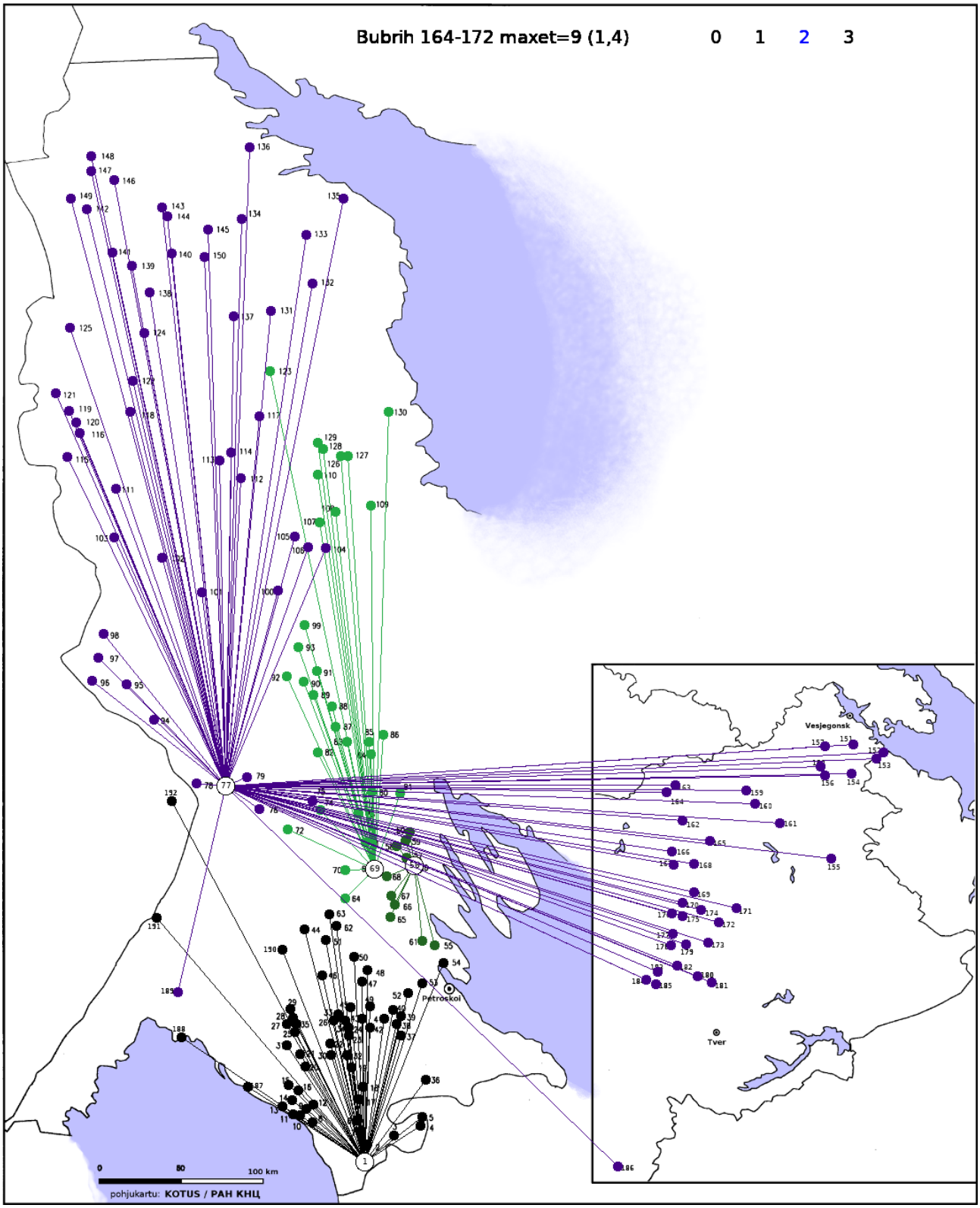
Cluster map 14c. Personal verb endings, level 3



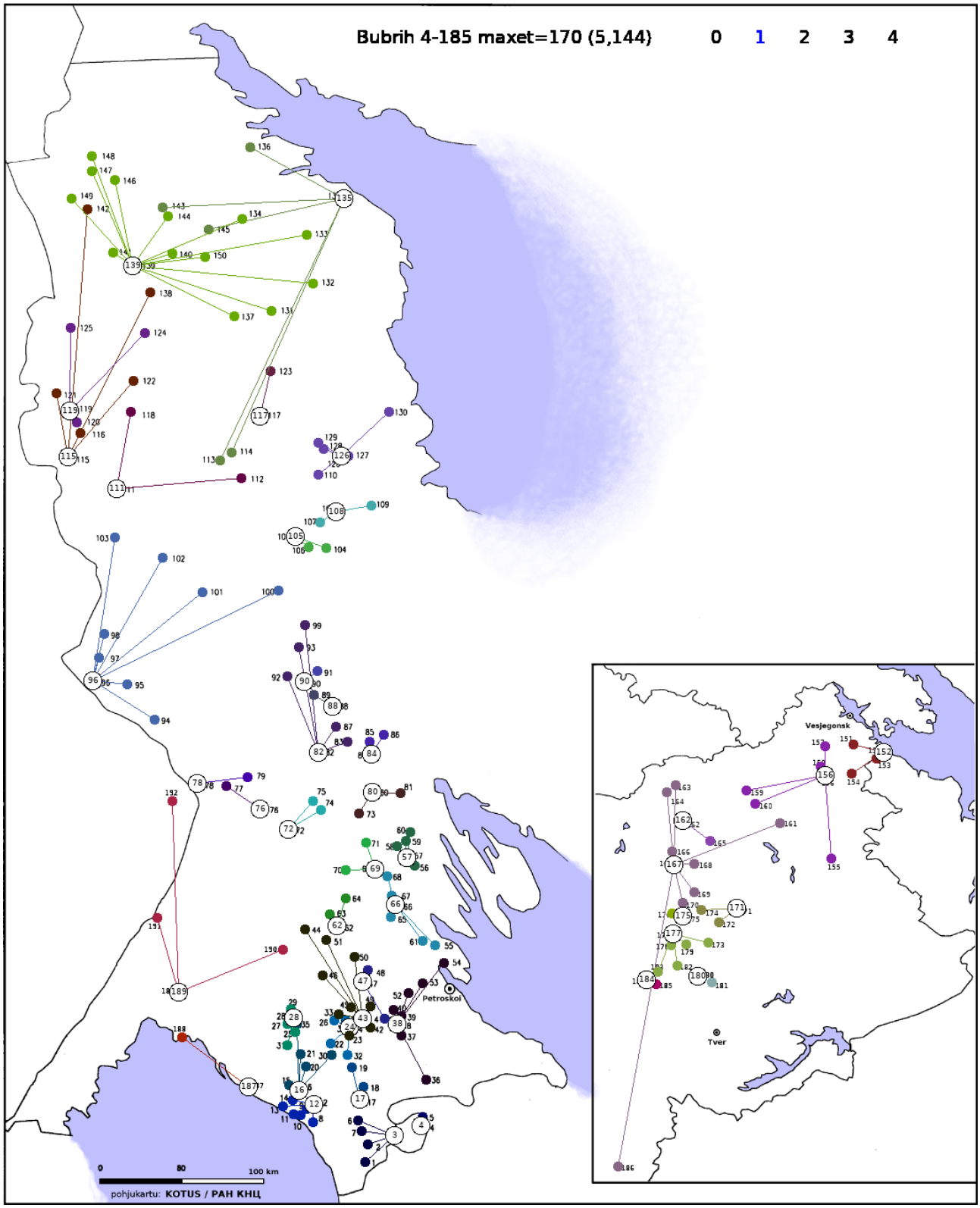
Cluster map 15a. Conjugation of reflexive verbs, level 2



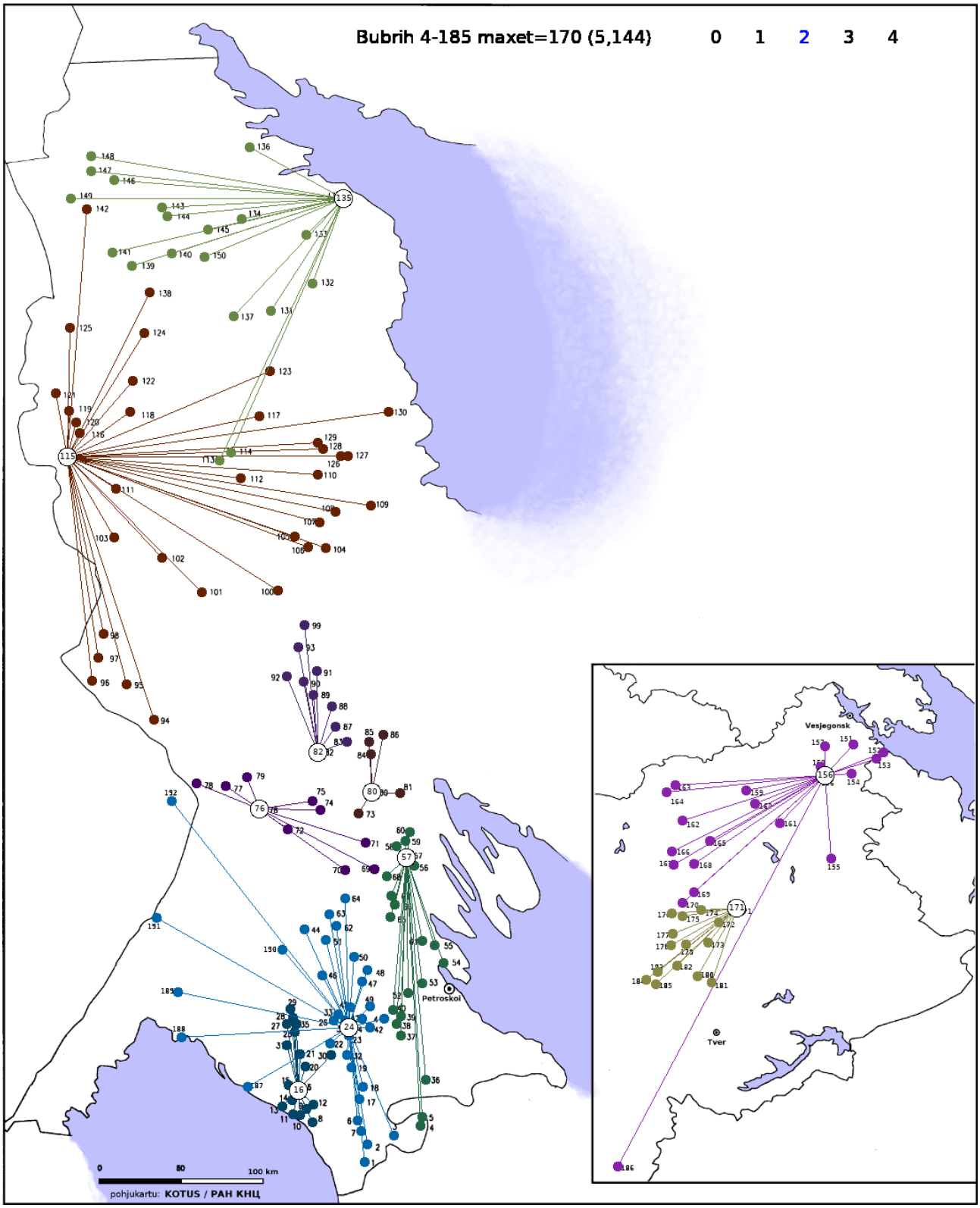
Cluster map 15b. Conjugation of reflexive verbs, level 2



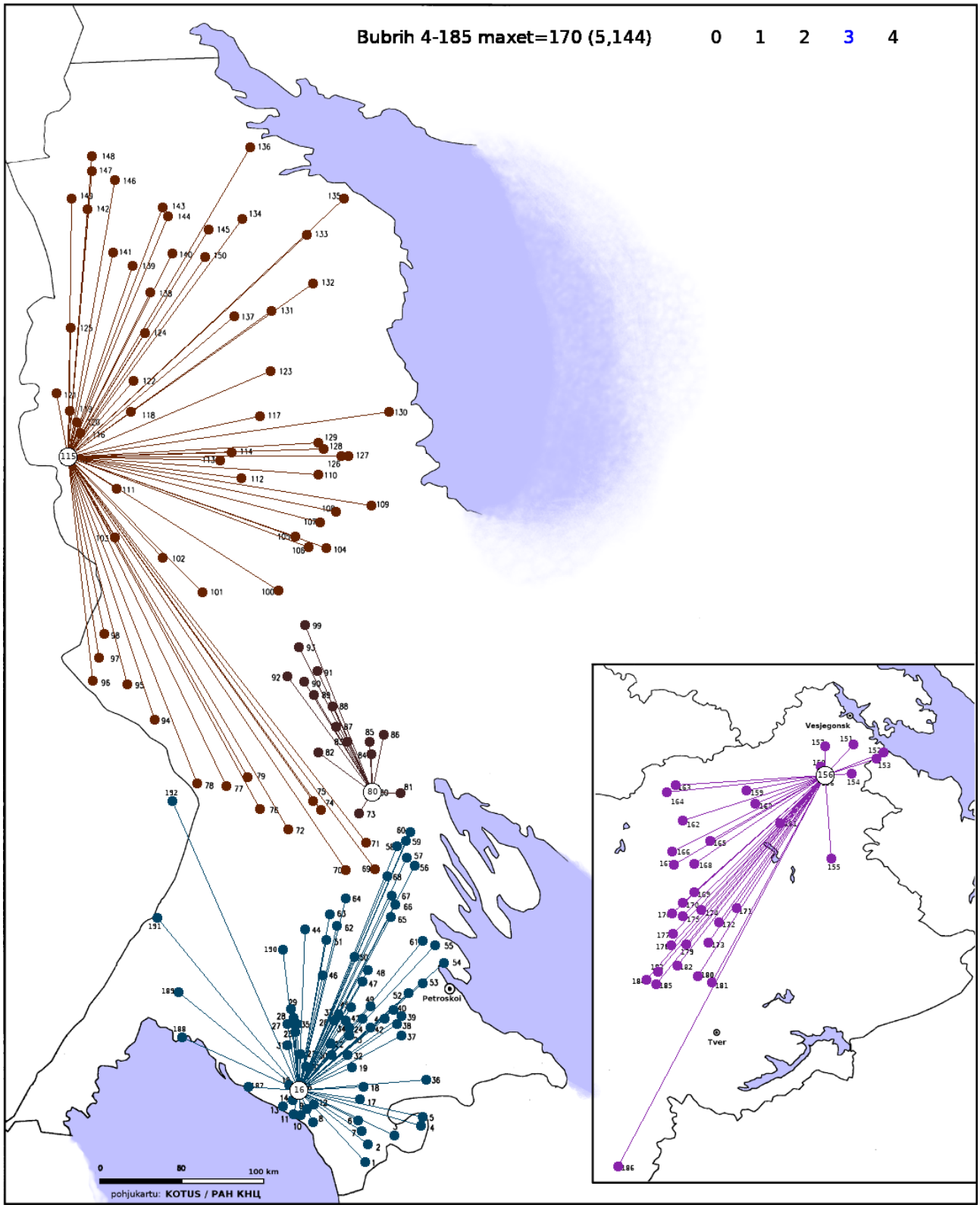
Cluster map 16a. Grammatical system of Karelian, level 1



Cluster map 16b. Grammatical system of Karelian, level 2



Cluster map 16c. Grammatical system of Karelian, level 3



DICTIONARY OF TABLE LEXEMES

A

a *conj.* but
abeuduo *v.* to become sad
abu *n.* help
ad'vo *n.* a guest
adru *n.* a plough
ahaš / ahtas *adj.* cramped
ahku *n.* slag
ahtas *adj.* constricted
ahtoa *v.* to load
ahven *n.* European perch (*Perca fluviatilis*)
aida / aidu *n.* a fence
aiga / aigu *n.* time
ainos *adv*. always
ainut *adj.* the only one
airo *n.* an oar
aitta / aittu / aitte *n.* a granary
aivoin *adv.* early
aižu *n.* a shaft, a pole
akka / akke *n.* a wife; an old woman
akkaine → *akka dem.*
alaažet → *alaine* PL
alaine *n.* a mitten
aldo *n.* a wave
algu *n.* a beginning
algua *v.* to begin
ambuo / ampuo / ambua *v.* to shoot
ammuin *adv.* in the old times
ammuldi̯a *v.* to scoop a liquid
andai *n., adj.* a giver; giving
andua / andoa / andi̯a / andai / anta / antta *v.* to give
annettu → *andua pass. ptcp2*
antilaš *n.* a bride
antua *v.* to give
appi *n.* a father-in-law
arba *n.* a lot
argi / arg *n.* time, day or food outside fasting
armas *adj.* dear
arreh *n.* a treasure
as's'a *n.* a thing; a matter
aštivo *n.* a harrow
aštoija *v.* to harrow
astuo / aštuo / astuda 'to walk'
augie *adj.* spacious; a clearing
auna / aunu *n.* a stook
auttoa *v.* to help
avaarii *n.* an accident
avain / avadin / avuan *n.* a key
avaita / avata *v.* to open
avando *n.* a hole in the ice
avauduo *v. trans.* to open
avi̯al'l'a → avata *freq.*
avutoin *adj.* helpless
azettua *v.* to stop
azie → *as's'a*

B

baba → *buabo*
barbas *n.* a toe
belie *v.* to whiten
bes's'oda / bes'oda *n.* an evening gathering
boabuška → *buabo*
boba *n.* a toy
bohatte *adj.* rich
bošši *n.* a ram
brihačču *n.* a boy
brossu *n.* millet
buabo *n.* a grandmother
bučči *n.* a barrel
buola / buolu *n.* lingonberry (*Vaccinium vitis-idaea*)
börö *n.* a beetle

Č

čakata *v*. to scold
čikko *n*. a sister
čirppi *n*. a sickle
čoma → *šoma*
čuhuttua *v.* to puff
čuppu *n*. a corner
čura *n*. a side; a direction
čurata *v.* to slide down a hill

D

d'algi *n.* a trace, a track
d'ogi → *jogi*
d'ogi *n.* a river
d'umal a god; the Christian god
d'uoda → *juuva*
d'uuri → *juuri*
d'änyöi / dänyöi *n.* a rabbit
denga *n.* money
diedo *n.* a grandfather
diga / digo *n.* a goose
diädä → *jiähä*
diädö *n.* an uncle
doroga / dorogu 'a road'
duuhhu *n.* an odour

E

ečči̯e *v.* to search
ečindä *n.* a search

eezimäne *ord., adj.* the first
ehty *n.* evening
ei *neg. v.* no
eineh *n.* food, provision
eleydyö / eleydyä *v.* to be rejuvenated
eliä / eleä / elie / elee / elädä *v.* to live
eländä *n.* a life
emändä / emändy *n.* a matron
endine *adj.* former
enimyttäh *adv.* for the most part
enne *adv., adp.* before
enämbi *adv*. more
erota *v.* to separate
etähyätä *adv*. from afar

F

foneetikku *n.* phonetics

G

garbalo / guarbalo *n.* small cranberry (*Oxycoccus palustris*)
giira *n.* a weight
gora *n.* a hill
griba *n.* a mushroom
groaffa *n.* a count (title)
grošša *n.* half a kopek
guru *n.* turkey (*Meleagris gallopavo*)

H

hago *n.* a decomposing tree trunk
haiška *n.* a carcass
halgo *n.* a billet
halla / halle *n.* frost
halleta *v. intrans.* to split
halletuš *n.* a glutton
hammas / hammaš *n.* a tooth
hangi *n.* a blanket of snow
hango *n.* a poker
hara *n.* a harrow
harakku *n.* magpie (*Pica pica*)
harata *v.* to harrow
haravoija / haravojja / haravuoit *v.* to rake
hardie *n.* a shoulder (anat.)
harmai / harmua *adj.* grey
harppu *n.* a leap
harva / harve *indef. pron., adj.* few; sparse
harvah / harvakšeh *adv.* seldom
hauda / haude / hawda *n.* a pit
haugi / hauki *n.* Northern pike (*Esox lucius*)
haukkuo *v.* to bark
havaččeutuo *v.* to wake up
havvu *n.* a coniferous tree branch
hebo *n.* a horse
heinä *n.* hay
heitteäkseh *v. relf.* 'to throw oneself'
helppo *adj.* small, thin
hengi *n.* a spirit
herneh *n.* a pea (*Pisum sativum* or its seed)
hiemaitoi *adj.* sleeveless
hiemoa / hiemua / hiemja *n.* a sleeve
hieno *adj.* fine, thin
higi *n.* sweat
hiili *n.* coal
hiiri *n.* mouse (*Mus musculus*)
hil'l'ah *adv.* quietly; slowly
hinda *n.* a price
hirži *n.* a wooden beam
hobie *n.* silver
hoikka / hoikku / hoikke *adj.* thin
hommu *n.* a chore
honga / honka *n.* Baltic pine (*Pinus sylvestris*)
hoppu *n.* a quarrel
huaba / huapa / hoaba *n.* European aspen (*Populus tremula*)
huahmuoi *n.* wolverine (*Gulo gulo*)
huba *adj.* small
huigie / huikie / huigei *n.* a shame
huima *adj*. mad
hukku *n.* grey wolf (*Canis lupus*)
humalattah *adj*. sober
huoletoin *adj.* care-free
huoli *n.* a worry
huondes *n.* a morning
huovis *adj*. inexpensive
hursti / huršti *n.* a blanket
huttu *n.* porridge
hyllätä v. to desert
hypellä v. to jump
hyppie / hyppidä *v.* to jump
hypätä *v.* to jump
hyvin *adv*. well
hyvys *n.* goodness
hyvä *adj*. good
hyö *pron.* they
häbälöijä *v.* to grope
hädä / hätä *n.* trouble
häimätä *v.* to do smth poorly
häkki *n.* a bull; an ox
hämärä *n.* dusk
händä / händy / hände / händ *n.* a tail
härgä *n.* a bull; an ox
härkin *n.* a utensil for stirring food
hätäytyö *v.* to get into trouble
hävittiä / hävitteä *v.* to destroy; to lose
hävitä *v.* to lose, to disappear
höi *n.* tapeworm (*Cestoda*)
höipuu *n.* guelder rose (*Viburnum opulus*)
höšte *n.* dung
höyhen *n.* a feather
höyry *n.* steam

I

iče *pron.* self
igä *n.* age
igävä *adj*. dreary
igävöijä *v.* to miss or long for sb or smth
ihastuksis *adv.* joyfully
ikävöijä *v.* to long for
ilda / ilta / ildu *n.* evening
iskie / iškie *v.* to strike

istuo / ištuo / istua *v.* to sit
ištuokseh / ištudakseh *v. relf.* to sit oneself down
itkie / itkiä *v.* to weep
itku *n.* weeping
izä / ižä *n.* a father
izändä *n.* a patron
iäni *n.* a sound; a voice
iäreh *adv*. away

J

jagua / jakua / jagoa *v.* to share; to divide
jahata *v.* to chase
jalačin *n.* an article of footwear
jalga / jalka / jalgu *n.* a foot; a leg (anat.)
jalguin *n.* a stirrup
jallai *adv*. on foot
jallas *adv*. awake
jallatoin *adj*. legless
jatko *n.* an extension, addition
jauhuo *v.* to grind
jiähä / jiäjä / jeähä / jöähä *v.* to stay
jiättöä → *jättiä*
jogi *n.* a river
joudoa *v.* to have time to do smth
juoldoa *v.* to sip
juosta / juossa *v.* to run
juuri n. a root
juuva / juuvva / juvva *v.* to drink
jykie *adj*. heavy
jyrinä *n.* rumbling
jähkie *v.* to push
jäleššä *adv*., *adp*. after
jälgi *n*. a trace
jänis *n*. a rabbit (*Leporidae*)
järie *adj*. thick
järvi *n.* a lake
jättiä / jättie / jiättöä *v. trans*. to leave
jääbi → *jiähä* pres. ind. 3pl
jöä *n.* ice

K

ka *conj*. then
kaadua → *kuadua*
kabaloija / kapaloija *v.* to swaddle
kabie *n.* a hoof
kablaš *n.* the support between skid and bottom of a sleigh
kabrastoa *v.* to clean
kačču̯o / kačču̯oda *v.* to watch, to look
kačču̯okseh *v. relf.* to appear to be
kaduo *v.* to disappear
kaglu *n.* a neck (anat.)
kaglus / kaklus *n.* a collar
kagra *n.* oat (*Avena sativa*)
kahtekse in two → *kaksi* tra. sg
kai → *kaikki*
kaida / kaidu *adj.* narrow
kaidaine → *kaida dem.*
kaikičči *adv.* always
kaikki *pron. indef.* all
kaikkineh *adv.* alltogether
kaiku *n*. an echo
kaimata *v.* to escort
kaivo *n.* a well
kaklus → *kaglus*
kaks'aile *adv*. bidirectionally
kaksi / kakši / kaks *num*. two
kaksittoain *adv*. by two
kal'jua *v.* to yell
kala n. a fish
kallis *adj*. expensive, dear
kana *n.* hen (*Gallus gallus domesticus*)
kanda *n.* a heel
kando *n.* a tree stump
kandua *v.* to carry
kannella *v.* to carry; to tattle
kanza / kanža *n*. people; family
kappa *n.* a pail
karčču n. a (small) manger
karrata v. to romp; to dance
kartata v. to card fibres
kasarta v. to use a billhook
kaski / kaški n. swidden
kassa / kasse n. a plait
kaššali *n.* a knapsack made of birch bark
kassu *n.* a braid
kaste / kašše *n*. dew
kašvattoa *v.* to grow (trans.)
kate *n.* a cover
katkata / katkaita / katata *v.* to break in two (trans.)
katketa *v.* to break in two (intrans.)
katoš *n.* a roof
katto *n.* a roof
kattua / kattoa *n*. to roof
kaunis / kauniš *adj*. beautiful
kaupiečči̯e v. to peddle
kaupita *v.* to peddle
kauppa *n.* trade
kavota *v.* to disappear
kavottua *v. trans.* to lose
kazi / kaži *n.* cat (*Felis catus*)
kažvaa / kažvi̯a / kazvata *v.* to grow
kazvattua *v.* to raise
kažvua *v.* to grow
kebieldi *adv*. easily
kebiä / kebie *adj*. light
kego *n.* a haystack
kehata *v.* feel up to doing smth
kehittiä *v.* to suggest
keittiä / keittie / keityä / keittädä *v.* to cook
kekšie *v.* to notice
kello *n.* a clock
ken *indef. pron., inter. pron.* who
kengättä *adv*. on barefoot
kenkä *n.* a shoe
keppi *n.* a stick
kerie *v.* to shear
keritä / kerritä *v.* to make it in time; to have time to do smth
keroni *n.* a throat (anat.)

kerätä *v.* to gather
kerävyö *v.* to gather round
keski / kešk *n.* a centre
kesteä / kestyä *v.* to endure
keyhnä / keyhny *n.* dandruff
keyhä / keyhy / keyhe / köyhy *adj.* poor
kezrätä *v.* to spin yarn
kezä *n.* summer
keändeä *v.* to turn
keännellä → *keändeä freq.*
keännelläkšeh / keännelläkse *v. relf.* to turn oneself
kidžu *n.* (oven-)dried fish
kiehuo *v.* to boil
kieldiä *v.* to forbid
kieli *n.* a tongue (anat.); a language
kieländy *n.* a prohibition
kierdiä *v.* to wrap; to go around
kiindie *adj.* firm
kiirehesti *adv.* hurriedly
kiirehtöä *v.* to hurry
kiiski *n.* ruffe (*Gymnocephalus cernua*)
kiitteä *v.* to thank sb; to to praise
kilba *n.* a competition
kintu *n.* a leg (anat.)
kipeytyö *v.* to start to hurt
kipiešti *adv.* painfully
kirbota *v.* to come off
kirďavu *adj.* colourful
kirguo / kirgua *v.* to scream
kirikkö *n.* a church
kirjuttua / kirjuttįa *v.* to write
kirppu *n.* a flea (*Siphonaptera*)
kiruočie *v.* to curse
kirves / kirveš *n.* an axe
kirvota / kirbota *v.* to come off
kiskuo / kiškuo / kiskua *v.* to pull
kitkie *v.* to weed
kiugua / kiukua / kiugoa / kiugįa *n.* an oven; a sauna stove
kiuru *n.* skylark (*Alauda arvensis*)
kivi *n.* a stone
kiza *n.* a dance, a game
kizata *v.* to play
kiägy *n.* a handle
kiändiä / kiäntyä *v.* to turn; to translate
kiännellä → *kiändiä freq.*
kniiga *n.* a book
kobra *n.* a hand
koda *n.* a shelter
kodi / koti *n.* a home; a house
kodvaine *n.* a short time
kogo *adj.* whole
kohendua *v.* to fix
koira / koiru / koire *n.* dog (*Canis lupus familiaris*)
koivu *n.* birch (*Betula*)
koivut → *koivu* NOM.PL
kokonah *adv.* wholly
kolo *n.* a fishing trap
komšu *n.* a basket made out of birch bark or shakes
kondie / kontie / kondii *n.* brown bear (*Ursus arctos*)
kondu *n.* home
konža *conj., inter. pron.* when
koodu *n.* code
kopittada *v.* to scuttle
korbi *n.* a dark forest
korendo *n.* a cowlstaff
korgei / korgei *adj.* high, tall
korva / korvu / korve *n.* an ear (anat.)
korvo *n.* a tub
korži *n.* a culm
kosina *n.* a slice of bread
koski / koški *n.* a rapid
koskie *v.* to touch
kossa *n.* a braid
košto *n.* a sarafan; twill fabric
kotku *n.* golden eagle (*Aquila chrysaetos*)
kova *adj.* hard
krivetä *adj.* to become blind
kruugu *n.* a circle
kuadua / koadoa *v.* to fell; to pour; to fall somth over
kualua *v.* to wade
kuaššu / koaššu *n.* porridge
kuavi *n.* a pole stuck into the ground
kuavita *v.* to scoop
kučču *v.* to call; to invite
kudu *n.* spawn
kuduo *v.* to weave
kugali *adv.* by which way
kuhmata *v.* to heat to a glow
kuhmeta *v.* to get hot
kuikka *n.* black-throated loon (*Gavia arctica*)
kuiva / kuivu / kuiv *adj.* dry
kuivailla → *kuivata freq.*
kuivata *v. trans.* to dry
kuivu *adj.* dry
kukki / kukko / kukoi / kukuoi *n.* rooster (*Gallus gallus domesticus*)
kulda / kuldu *n.* gold
kuldaine / kuldane *adj.* golden; dear
kulgie / kulkie *v.* to walk; to travel
kumarduo *v.* to crouch
kumarrellakšeh / kumardeliakšeh / kumardoačče *v. relf.* to bow
kummu / kumme *n.* a wonder
kuni *conj.* until
kunne *adv. inter., adv. relat.* where to
kuokka *n.* a hoe
kuolta *v.* to die
kuotella *v.* to try
kuožali *n.* a distaff
kuppi *n.* a cup
kurgi / kurki *n.* a crane
kurittada *v.* to make sb smoke tobacco
kuťaine *n.* a puppy
kuu *n.* a month; the moon
kuulla / kuulta *v.* to hear
kuuluo *v.* to belong; to be heard
kuunnella / kuunelta *v.* to listen
kuutti *n.* a dugout
kuuzi / kuuži *num., n.* six; a spruce
kydy *n.* husband's brother
kydyö *v.* to smoulder

kylbie *v.* to bathe
kylgi *n.* a side (anat.)
kylpie *v.* to bathe
kylvettiä *v.* to bathe (trans.)
kylvie *v.* to sow
kylvö *n.* sowing
kylvös *n.* a recently sown patch of land
kyly *n.* a sauna
kylyine → *kyly dem.*
kylä *n.* a village
kyndiä *v.* to plough
kynkä *n.* an elbow (anat.)
kynzi / kynži *n.* a nail (anat.)
kypsetä *v. intrans.* to cook; to ripen
kypsi / kypši / kypsy *adj.* ripe, done
kypšyö → *kypsetä*
kytkie *v.* to weed
kyynel' *n.* a tear
kyžellä → *kyzyö freq.*
kyzydä / kyžydä → *kyzyö*
kyzyö *v.* to ask
kägöi *n.* cuckoo (*Cuculus canorus*)
käitä *v.* to promise
käitöi *adj.* armless
käki → *kägöi*
kämmen *n.* a palm
kärbäine / kärbääne *n.* housefly (*Musca domestica*)
kärgi *n.* a tip; woodpecker (*Picidae*)
käskie / käškie *v.* to command
kätkyt / kätyt *n.* a crib
kävellä / käveltä *v.* to walk
käyttiä *v.* to use, to take sb smwh
käyvä / kävvä *v.* to go or stop by smwh
käzi *n.* a hand; an arm (anat.)
käzimiten / käzimite *adv.* personally; directly
käžny *n.* a wart
köyhä *adj.* poor

L

l'uubie *v.* to love
laadie → *luadie*
laalaa → *laulua*
labju n. a shovel
lačču *adj.* gently sloping
laď ďata *v.* to load; to stack
ladvu / ladve *n.* a treetop
lagi / laki *n.* a ceiling
lahkis *n.* a trouser leg
lahko *n.* a floorboard'
lahna *n.* bream (*Abramis brama*)
lainata *v.* to borrow
lainota *v.* to swallow
laiska / lašku *adj.* lazy
lakši *n.* a bay
lambi *n.* a pond
lammas / lammaš / лammaš *n.* sheep (*Ovis aries*)
langa *n.* a thread
langeta *v.* to fall
lapsi / lapši *n.* a child
lasketa → *laskie*
laskie / laškie *v.* to lower
laskiekseh *v. refl.* to lower oneself
lašku *n.* the act of lowering a fishing rod, net, or seine
lastu / laštu *n.* a woodchip
lauda / lauta / laudu *n.* a board
laukku (lauka-) *n.* a bag
laukku (lauku-) *n.* a shop
laulua *v.* to sing
lautta *n.* a raft
lehmä / lehmy *v.* a cow
lehti *n.* a leaf
leibä / leiby *n.* bread
leikata *v.* to cut
lekuttai *v.* to move
lembi *n.* female attractiveness
lembo *n.* an evil spirit
lendeä *v.* to fly
lendäi *adj.* flying
leppä / leppe *n.* alder (*Alnus*)
leski / leški *n.* a widow; a widower
leuga / leuka / leugu / leuge *n.* a jaw (anat.)
levei *adj.* broad, wide
liedžu / liedž *n.* a swing
liekku → *liedžu*
liemi *n.* a broth, a soup
lietä *v.* to become; to happen
liga *n.* dirt
liha *n.* meat
liiffa *n.* the front or waistcoat part of a dress
liiga / liigu / liige *n.* extraneous, redundant
liikkuo *v.* to move
liina *n.* hemp (*Cannabis sativa*)
lindu *n.* a bird
linna *n.* a city
lipas *n.* a cheast for clothes
lisätä *v.* lisätä
liugu *n.* a slope
liuha *n.* a wooden bail
liydiläine *dem.*, *adj.* a Ludian; Ludic
liygi *n.* Livvi-Karelian
liyheh / liyhes / liyhteh / liyhtes *n.* a sheaf
lizätä *v.* to add
liävä *n.* a byre
lohata *v.* to laugh
lohko *n.* a block
loin *n.* a warp
loitoči *adv.* from afar
loitombakkali *adv.* further away
loitton *adv.* far away
loppida → *loppie*
loppie *v.* to quit
loppu / lopp *n.* an ending
lopulleh *adj.* about to end
lottö / löttöi / lötöi *n.* common frog (*Rana temporaria*)
loukko *n.* a hole
louna *n.* a dinner
luadie *v.* to make; to do; to create
lugie / lukie / lugeda *v.* to read; to count
lugu *n.* a count; an amount; a number
luja *adj.* firm

lujal *adv*. certainly
lujašti / lujasti *adv*. hard
lukku *n.* a lock
lukuta *v.* to lock
lumi *n.* snow
luokka *n.* a class
lutiine → *lutikku*
lutikku *n.* bed bug (*Cimex lectularius*)
luu *n.* a bone
luutuoi *adj*. boneless
luuva / luuvva / luvva *v.* to throw
luvata *v.* to promise
luzikka / luzikku *n.* a spoon
lyhetä *v.* to shorten
lyhyt *adj*. short
lyijy *n.* lead
lykätä *v.* to throw
lypšiä *v.* to milk
lyyvä / lyyvvä / lyvvä / lyödä *v.* to strike
lyödä → *lyvvä*
lähetyšti *adv*. close
lähtedä → *lähtie*
lähtie / lähtä *v.* to leave
lämmy *adj*. warm
längi *n.* a horse collar
läsie / läžie *v.* to be ill
läški *n.* fat
läylen *n.* languidness
läzeydyö *v.* to fall ill
läžie → *läsie*
löydiä / löwdiä / löydeä / löydädä / löytä *v.* to find
löyly *n.* steam from sauna stove
löytä → *löydiä*

M

maatah → *muata* pres. ind. 3sg
madala *adj*. low
mado *n.* a viper
magata → *muata*
magu *n.* a taste
maho *adj*. barren
mahtua *v.* to be able to do smth
maido *n.* milk
mainita *v.* to mention
majeh / madeh *n.* burbot (*Lota lota*)
maksada *v.* to pay
malttua *v.* to understand
matata *v.* to travel
matka *n.* a travel
meĉčä / meĉče *n.* a forest
mečoi *n.* Western capercaillie (*Tetrao urogallus*)
mennä / männä *v.* to go
merda *n.* a fish trap
mesta *n.* a place
mezi *n.* honey
mi *conj., relat. pron.* what, that
mi̯a → *mua*
mie *pron*. I
miehyt → *mies dem.*
mieli *n.* a mind
mies *n.* a man
min'n'a *n.* a daughter-in-law
missä *adv. inter., rel., indef.* where
moa → *mua*
moata → *muata*
moine *adj. pron.* such, kind of
moittie *v.* to scold
molie *v.* to pray
mua / moa / mi̯a *n.* the ground; a land
muam → *muamo*
muamo / muam *n.* a mother
muata / moata / magata *v.* to sleep
mugalei / mugaleiten *adv*. in that way
muigie / muikie *adj*. sour
muistua *v.* to remember
mukeldaakseh *v. refl.* to take a fall
mul'u *n.* a hornless cow
mulloi / mullos *adv*. last year
muoilma *n.* a world
murdo *n.* litter; a type of structure used to lure fish
murdoa *v. trans.* to twist; to break
murendoa *v. trans.* to break
mureta *v. intrans.* to break
murrota *v.* to litter
muru *n.* a crum
mussikka *n.* bilberry (*Vaccinium myrtillus*)
musta / mušta / mustu *adj*. black
muštai *v.* to remember
muutella → *muuttua freq.*
muuttua *v. trans.* to change; to move; to turn into smth
mužikke *n.* a man
myyvä / myyvvä / myvvä / myödä *v.* to sell
myö *pron.* we
myödä → myyvä
myöhä *adv.* late
mädžötä *v.* to crush
mägi *n.* a hill
männikkö *n.* a pine forest
männä → *mennä*
märgä *adj*. wet
mätäs / mätäZ *n.* a tussock
mökkö *n.* bark bread
möykky / möökky *n.* a small round loaf of rye bread
möössä / möissä *v.* to yell

N

n'aba *n.* a navel
n'okke *n.* a beak
n'okkie *v.* to peck
n'ukkeuduo *v.* to become sleepy
n'ukkuo *v.* to doze
naaja → *naija*
nagris / nagris' n. turnip (*Brassica rapa*)
nagrua *v.* to laugh
nahka / nahku *n.* a hide; leather
naija *v.* to marry (a bride)
naine *n.* a woman; a wife
nappi *n.* a button
neidine *n.* an unmarried young woman; a maiden
nellä / nel'l' *num*. four

nenä *n.* a nose
nieglu / niekla *n.* a needle
niekla → *nieglu*
niitteä / niittädä *v.* to reap
nimetöin *adj.* nameless
nimi *n.* a name
niška / niska / niške *n.* a neck (anat.)
niuha *adj.* economical
nižu *n.* wheat
noagla / noagle *n.* a nail
nosta / nošša / nouša / nousta *v.* to rise
nostua *v.* to lift
nouša / nousta → *nosta*
nuatti *n.* a top (bot.)
nuori *adj.* young
nuotta *n.* a seine
nur'm *n.* grass
nuužaududa *v.* to become impoverished
nyblä / nybly *n.* a button
nylgie *v.* to skin
näblie *v.* to lick
nägiä → *nähä*
nägyö *v.* to be visible
nähä / nähtä *v.* to see
näin → *nähä* IMPERF.IND.1SG
nälgä / nälg *n.* hunger
nällästyö *v.* to become hungry
nänkyijä *v.* to babysit
nänni *n.* a nipple
näppi *n.* a finger, a fingertip

O

očča / očču *n.* a forehead
oigie / oikie / oigei / oiged *n., adj.* right; straight
oigieh *adv.* straight; to the right
oksu / okse *n.* a bough
olda → *olla*
oldihhäi → *olla* IMPERF.IND.PL3 + -hAi
olgi *n.* straw
olla / olda / oлda *v.* to be
olla kiini *v.* to be closed
olut *n.* beer
oma *adj.* one's own
ommella *v.* to sew
ongi *n.* a fishing rod
ongittua *n.* to fish with a fishing rod
onži *adj.* hollow
opastai *n.* a teacher
opaštua *v.* to teach
opastuja *n.* a student
opastuo / opaštuo *v.* to learn; to study
oppie / oppida *v.* to try
or'hoi n. arctic raspberry (*Rubus arcticus*)
oravu *n.* red squirrel (*Sciurus vulgaris*)
orih *n.* a stallion
ostai → *ostoa*
ostoa / oštoa / ostua / oštua / oštja / ostada / ostai 'to buy'
otettu → *ottua* PASS.PTCP2
ottua / ottua / ottai / ottada *v.* to take
ottuakseh *v. refl.* to dedicate oneself
oudo *adj.* weird
oza / ože *n.* luck
ozakas *adj.* happy
ozatoi *adj.* unhappy
ozra / ozru n. barley (*Hordeum vulgare*)

P

pačas *n.* a beam, a pillar
pada / pata *n.* a cooking pot
paeta *v.* to escape
pagina *n.* a talk; conversation
paha *adj.* bad
pahallah / pahalleh *adv.* badly
paheta *v.* to worsen
pahka *n.* a gnarl
paida / paita *n.* a shirt
paikata *v.* to fix
paikka *n.* a place
paimen *n.* a shepherd
paista *v.* to speak
paistua *v.* to fry
paita → *paida*
paivu *n.* willow (*Salix*)
paize *n.* a boil
pajeta / poata *v.* to escape
pakita / pakota *v.* to ask, to beg
paksu / pakšu *adj.* thick
pal'l'aš *adj.* bear
pala *n.* a piece
palane → *pala dem.*
palgo *n.* a pod
palȷa *v. intrans.* to burn
palkata *v.* to hire
palkke *n.* a wage; a reward
palmikoija *v.* to braid
panda → *panna*
panna / panda *v.* to put
pappi *n.* a priest
parahiten / parahite / parahittajen adv. just enough; mostly
parda / pardu *n.* a beard
parembali *adv.* in a better way
parembi *adj., adv.* better; rather
parendoa *v.* to heal
pareta *v.* to become better
parzi *n.* a wooden beam
passibo *n.* an expression of gratitude, thank you
paššie *v.* to plough
pastada *v.* to cook (in an oven)
pedra *n.* deer
pee → *piä*
pehmei *adj.* soft
peideä *v.* to stretch a hide to cure
peigalo / peikalo *n.* a thumb
peitoči / peitokkali *adv.* in secret
peittie *v.* to cover; to hide smth
peittyö *v. intrans.* to cover; to hide
peldo / pelto n. a field
pelloči → *peldo* PROL

pereh *n.* a family
pergua *v.* to strike
perindö *n.* a heritage
perti / pertti *n.* a house
pessäkseh *v. trans.* to wash oneself
pestä / pessä / peššä v. to wash
petkel *n.* a pestle
peä → *piä*
pi̯armа *n.* a hem
pideä / pidie / pidiä *v.* to hold
piduhuš *n.* length
piel *adv*. above
pieni *adj*. small
piettiä *v.* to hinder
piha *n.* a yard
pihka / pihku *n.* (coniferous) resin
piihtet *n.* tongs
piirag / piiraG → *piirua*
piirua *n.* a pie
pilkkuo *v.* to slice into pieces
pimie / pimei *adj*. dark
pirda *n.* a loom reed
pirtti *n.* a house
pissoš *n.* a sting
pitembi → *pitkä adj. comp.*
pitkä / pitky *adj*. long
pitältä → *pitkä* ABL
piä / peä / pää / pee *n.* a head (anat.)
piähyt *n.* a head
piästä / piäštä / piäššä *v.* to free oneself; to be saved
plakuttua *v.* to knock
pläššie *v.* to dance
poažma *n.* a part of skein
počči *n.* a pig
poiga / poigu *n.* a son; a boy
pokko *n.* ram (*Ovis aries*)
polgie *v.* to trample
polttada → *polttua*
polttua / poltua / polttada *v.* to burn
poro *n.* ash lye
porraš *n.* a step
potkie *v.* to kick
pouda / pouta / poudu / poude *n.* dry weather
primietta / primiettu *n.* a portend
proidida *v.* to go
prostie / prostida *v.* to forgive
pruazniekka / pruasniekka / pruazniekku / pruazniekke *n.* a celebration
ptruko / tprukoi *interj*. a cattle call
pualikk *n.* a stick
pučči *n.* a barrel
pudro *n.* groat porridge
puheta *v.* to burst
puhtahus *n.* cleanliness
puhuo *v.* to blow
puija *v.* to thresh
puikko *n.* a stick
puine *n.* a big wooden tub
pun'u *n.* a short person
punoda → *punuo*
punuo *v.* to weave
puoksu ***adj.*** **thick**
purra / purta *v.* to bite
purrata *v.* to dissemble; to unpack, to unload; to snow
pussi *n.* a bag
puu *n.* a tree
puudu *n.* a pood (16.8kg)
puusta *n.* an empty, uninhabited place; a glade
puuttua / puuttuo *n.* to get stuck; to end up
puzerdua *v.* to squeeze
pyhkie *v.* to sweep
pyhä *n.* a fast'
pyrkie *v.* to strive
pyy / püü *n.* hazel grouse (*Tetrastes bonasia*)
pyydiä *v.* to catch

pyyhkie *v.* to sweep
pyžydä → *pyzyö*
pyzyö / pyžydä *v.* to stay
pyöhin *n.* a churn
pyörie *adj*. round
päčči / päčč *n.* an oven
päissär / päisär / päštär *n.* a splinter of flax or hemp
päivä / päivy / päive *n.* a day
päiväne *n.* the sun
päre *n.* a wooden shake
päštär → *päissär*
pöččö *n.* a stomach
pölkky *n.* a block
pöllästyö *v.* to be startled
pölytä *v.* to shed dust
pöšši *n.* a crab trap
pöäkšyt *n.* a swallow

R

r'uvvut *n.* a pole (nom. pl)
rahis → *rais*
rais / raiš / rahis *n.* a hailstone
raiska *n.* a wretch
ramba / rambu *adj., n.* lame; a lame person
randa / ranta / randu *n.* a shore; a border; a rim
rauda *n.* iron'
ravieh *adv*. quickly
ravissa *v.* to yell
razva / razvu / razve *n.* fat, grease
rebo / reboi / rebuoi *n.* red fox (*Vulpes vulpes*)
rebuoi → *rebo*
redu *n.* dirt, filth
regi / reki *n.* a sled
rengi *n.* a bucket
reuna *n.* a rim
reädy *n.* a row
reähkä / röähkä *n.* a sin
rida *n.* a trap
riehkie *v.* to flail one's arms
riehtilä / riehtil *n.* a frying pan
rieška / riesku *adj.* fresh
rihma *n.* a thread
riida *n.* a fight
riihi *n.* a building for drying and threshing grain

riissu *n.* rice (*Oryza sativa*)
riita *n.* a quarrel
rikkoda *n.* to break
rinda *n.* a breast
rinnus *n.* a hame strap
rippiel *adv*. hanging
rippua / rippuo *v. intrans.* to hang
ripšu *n.* a strip of fabric
riputtoa *v. trans.* to hang
riugu *n.* a pole
riäpöi *n.* European cisco (*Coregonus albula*)
roaga *adj*. raw
roaje *n.* work
rokka *n.* a soup
rossu *n.* a grove; a burial ground
rougu *n.* a tanning agent
ruadau / roadau → *ruadua* pres. ind. 3sg
ruado / roado *n.* work
ruadua / ruatua / roadoa / ruadaa / raadaa *v.* to work
ruag *adj*. raw
rubeta → *ruveta*
rubjata → *ruveta*
ruga *n.* hardened resin
rugiz → *ruis*
rugo *n.* a haystack
ruis *n.* rye (*Secale cereale*)
ruoda / ruodu *n.* a fishbone
ruoga / ruogu *n.* food; fodder
ruohtie *v.* to dare
ruopas *n.* a pile of rocks; a ruin
ruoška *n.* a whip
ruskota *v.* to redden
rutto *adj.* sudden
ruttoh *adv*. fast
ruveta / rubeda / rubeta / rubjata *v.* to begin to do smth
rääštäš *n.* eaves
röbäyttöä *v.* ryystää
rökkö *n.* a blister

S

sada *num*. a hundred
sadu *n.* a garden
sagie / šagie *adj*. thick
šalba *n.* a clasp
salbatakseh *v. relf.* to close itself
šalgu *n.* a backbag made of cloth
salvata / šalvata / salbata *v.* to close
salvoa / šalvua *v.* to build a corner with notches
sammal / šammal *n.* moss
sana / šana *n.* a word
sanella *v.* to tell
sanuo / šanuo / šanua / sanoda *v.* to say
sar'ouha *n.* a tsarina
šara *n.* a ball
šarga *n.* frieze; baize
šarvi *n.* a horn
sattuo *v.* to happen
še *pron*. he/she/it
sega *n.* a mixture of food or drink
šeinä *n.* a wall
seisuol'l'ah *adv*. standing
seizuo / seižuo *v.* to stand
selgä / selgy / šelg *n.* a back (anat.)
sellitä *v.* to get rid of smth
selläkkäh *adv*. back-to-back
sendäh / žentäh *conj*. because
seppä / šeppä / seppy *n.* a blacksmith
ševottoa *v.* to mix
ševätä *v.* to hug
siduo / šiduo *v.* to tie
sieni / šieni *n.* a mushroom
sies / šieš *adj.* clear (weather)
siibi / šiibi *n.* a wing
siigu *n.* European whitefish (*Coregonus lavaretus*)
siirdiä *v. trans.* to move
siirtyä *v. intrans.* to move
siivota *v.* to clean
siivyt → *siibi dem.*
siksi *conj*. because; for that reason
silda / silta / šilda / sildu *n.* a bridge
silie / silei *adj*. smooth
šilmä / silmä / silmy *n.* an eye
sinine *adj*. blue
sinne *adv.* into that place
šišiliuhku *n.* common lizard (*Zootoca vivipara*)
sizär *n.* a sister
siä *n.* weather
siäri *n.* a shin
skripka / skripku *n.* a violin
sluuda *n.* a place used to ret flax
soba / šoba *n.* an article of clothing
soimi *n.* a manger
šoittu *n.* an accordion
soittua *v.* to call
šolahtua / šolahtoa *v. intrans.* to slip down
šoma / čoma *adj*. beautiful
šoppi *n.* a nook close to the oven; a kitchen
šordo *n.* a type of fence
sordua *v. trans.* to fall smth over
sorduo *v. intrans.* to fall over
sormi *n.* finger
šorp *n.* a spike
sorza / šorža duck (*Anatidae*)
šotkie *v.* to mix
soudua / šoudua *v.* to row
soveta *v.* to become blind
spruavie *v.* to handle or take care of smth
što *conj.* that
stoga *n.* a haystack
striäppie *v.* to bake
stuula / stuulu *n.* a chair
suaha / šuaha / šoaha / suaja / suaha / suada *v.* to get, to receive
šuapaš *n.* a boot
suari / šuare *n.* an island
šuarnata *v.* to tell
šuaš / šuvaš *n.* a bristle
šuata → *suvaija*
suatto *n.* a haystack
suď'ď'a / suď'ď'u *n.* a judge
sugu *n.* a family

sukka / sukku *n.* a sock
suksi *n.* a ski
šuntti *n.* a ragamuffin
suo / šuo *n.* a bog
suola / suolu / suole *n.* salt
šuoli *n.* an intestine
suorita / šuorita *v.* to get prepared
suovatta / suovattu *n.* Saturday
šušši *n.* women's short padded coat
šuu *n.* a mouth
suurembi → *suuri adj. comp.*
suuri / šuuri *adj.* large
suutkat *n.* a day and night (24 hours)
suvaija / suvajja *v.* to like; to love
šuvaš *n.* a bristle
šuvata → *suvaija*
sygzy *n.* autumn
šyin *adp.* because of; for some reason
sylgi *n.* spit
sylgie *v.* to spit
syli / šyli *n.* a lap
šyndyö / syndyö *v.* to be born; to fit
syvvä / šyvvä / syyvä / šyyvä / syödä / šyödä *v.* to eat
syvä *adj.* deep
syväin / šydäm *n.* a heart
syväin *n.* heart
syy *n.* a reason
syömine *n.* food
šyöttie *v.* to feed
syöttäine *n.* a feeder
sängi *n.* stubble
särgi *n.* common roach (*Rutilus rutilus*)

T

ťouta *n.* an aunt
taba *n.* a custom, a habit
tabailla *n.* → *tavata freq.*
taguo *v.* to forge
tahas *n.* dough
tahko *n.* a grindstone
tahkota / tahota *v.* to grind
tahtas *n.* dough
tahtuo *v.* to want
taivuttua *v.* to bend
takka *n.* a burden
talo / taloi *n.* a house
tanhut *n.* a barn
tappoa / tappi̯a *v.* to kill
taričča / tarita *v.* to offer
tarveh / tarbeh *v.* a need
tavata / tavota / tavottua *v.* to catch
tedri *n.* black grouse (*Lyrurus tetrix*)
terveh *adj.* healthy
tervehyš *n.* health
tervu *n.* tar
ti̯aš *adv.* again
tie *n.* a road
tiedeä / tiediä / tietyä / tiddeä *v.* to know
tiedo *n.* knowledge
tiineh *adj.* pregnant (of animals)
tiiritä *v.* to sieve
tikka / tikku *n.* woodpecker (*Picidae*)
tina *n.* pewter
tirppoa / tirppada *v.* to endure, to suffer
tiukkua *v.* to tweet
tiäi → *täi*
toatto / tuatto / tuatte / tuatt *n.* a father
toine / toini *ord., adj.* another; the second
toppu *n.* mote, litter
tora *n.* a fight
torata *v.* to fight
tuai *pron. dem.* that one
tuanne *adv.* to there
tuhka / tuhku *n.* ash
tuhmasti *adv.* in a dumb or an ugly manner
tukka *n.* hair
tukku *n.* a stack
tukuta *v.* to gather
tuli *n.* fire
tulla / tulda *v.* to come; to become
tundie *v.* to feel; to know
tunnus *n.* a trace
tuoda → *tuuvva*
tuohi *n.* birch bark
tuohus *n.* a candle
tuomi *n.* bird cherry (*Prunus padus*)
turba *n.* a muzzle
turveh *n.* peat
tuuli 'wind'
tuuva / tuvva *v.* to bring
tylčče *adj.* dull, obtuse
tyttö *n.* a girl
tyttöine → *tyttö dem.*
tytär *n.* daughter
tyvi *n.* a stem, a base
tyyni *adj.* calm
työ *n.* flax; hemp
työndeä *v.* to send
täčyöi *adj.* full
tädöi *n.* an aunt
tägäli *adv.* this way
tähkä / tähky *n.* an ear (bot.)
tähti *n.* a star
täi / tiäi 'a louse'
tämä *pron. dem.* this one
täyzi / täyži / täyši / täys *adj.* full
töllötä *v.* to die (of an animal)
töytty / teytty *n.* käärö

U

uija / uidua / uida *v.* to swim
uinda *n.* the act of swimming
uinota *v.* to fall asleep
ukata *v.* to kiss
ukko *n.* a man; an old man
uni *n.* a dream
unohtoa / unohtua *v.* to forget
upota *v.* to drown
us's'a *n.* mouth of a river
uskuo / uškuo *v.* to believe

uudimo *n.* a bed canopy
uuvelleh → *uuvvestah*
uuvus *n.* newness
uuvvestah / uvvestah *adv*. again
uuzi *adj.* new

V

vaaru *n.* pitch (resin)
vačča / vačču / vačče *n.* a stomach
vago *n.* a furrow
vahnu / vahn / vanh *adj.* old
vaibuo *v.* to become tired
vaihtai *vaihtua* to change *ptcp1*
vakka *n.* a container made of birch bark
valda *n.* power; freedom
valehella *v.* to lie
valgie / valgei *adj.* white
valleta *v.* to lighten
vallita *v.* to choose
valmis *adj.* ready, done
vanha *adj.* old
vara *n.* a spare'
varačču *n., adj.* a coward
varata *v.* to fear
varbu *n.* a twig
varzi / varži *n.* a stem
vastata *v.* to answer
vavota *v.* to plough water furrows
vaza / važa *n.* a calf
vedehine *n.* a water spirit
vedelii *n.* sleigh puller
vediä / vedeä / vetyä / vedöä *v.* to pull
vedo *n.* a tax
veičči *n.* a knife
velga / velgu *n.* a debt
velli *n.* a brother
Ven'a *n.* Russia
venča *n.* a wedding crown; a wedding
veneh' *n.* a boat
venyö *v.* to stretch; to lie down
verdu *n.* equal or superior in comparison
veres / vereš *adj.* fresh
veri *n.* blood
verko *n.* a net
vestiä *v.* to carve
veza *n.* a shoot, a sprout
vezi / vesi / veži *n.* water
viba *adj.* askew
vibu *n.* a lever
vičča *n.* a twig
vičikkö *n.* shrubbery
vie *adv*. yet
viedä → *viijä*
viehku *n.* a sign
vierdiä *v.* to turn ground over in a swidden
vierdä *v.* to lie down
vierekkäh *adv*. side by side
vierrä *v.* to roll
viesata *v.* to weigh
viesti *n.* a message
viga *n.* a mistake
viheldiä *v.* to whistle
vihmu *n.* rain
viija / viijä *v.* to take smth smwh
viikon *adv*. for a long time
viildiä / viiltyä *v.* to cut
viipata *v.* to wave
viižaš *adj.* cunning
viizi *num*. five
vil'l'a *n.* grain
villa / villu *n.* wool
vilu / vily *n., adj.* coldness; cold
virbi *n.* tarred thread
virda / virta *n.* a stream
virkka *adj*. obedient
virrota *v*. to come to
viruo *v.* to lie
virži *n.* a song
virzu *n.* a birchbark shoe
viyhti *n.* a skein
viärä / viäre *adj*. crooked
voassa *n.* beer
voi *n.* butter; oil
voida → *voija*
voidua / voidja *v.* to anoint, to apply butter or oil
voihut *n.* butter
voija / vojja *v.* to be able to
voije *n.* an ointment
voittua *v.* to win
vuašša / vuassu *n.* beer
vuate *n.* an article of clothing
vuitti *n.* a part
vuonna *n.* a lamb
vuorokkai *adv.* in turns
vuorotellen → vuorokkai
vuosi *n.* a year
vuottua *v.* to wait
vuozi / vuoži *n.* a year
vuozitellen *adv.* year by year
vyö *n.* a belt
vyöhyt → *vyö dem.*
vägevy *adj.* strong
vägi *n.* strength; power
vähitellen *adv*. little by little
välites *n.* the act of getting out of someone's way
vällä *adv., n.* free; freedom
värčči *n.* a bag
värissä *v.* to tremble
värtin *n.* a spindle
vävy / väy *n.* a son-in-law
väzydä → *väzyö*
väzyö *v.* to become tired

Y

yksi *num*. one
yksinäh *adv*. alone
yksityini *adj*. private
ylendiä *v.* to raise, to elevate
ylähäkkäli *adv*. from above
ysky *n.* one's lap or arms

yškä *n.* lap
yö *n.* a night
yöhyt → *yö dem.*
yökšyö *v.* to get lost

Z

zakona *n.* a law
zavoda *n.* a factory
zbruuja *n.* a tool
zel'l'u *n.* an herb; medicine
žentäh → *sendäh*
žeäli / žiäli *n.* a pity
žiida *n.* a devil
žiilo *n.* a home; a vein
žiivatta / žiivattu *n.* livestock (esp. cattle)
žirdi *n.* a pole, a shaft
zor'a *n.* light of dawn or dusk
zuahari *n.* sugar
zuavessi *n.* a curtain
zvieri *n.* a wild beast

Ä

ähkätä *v.* to push
äijä / äijy *adj., adv.* a lot; several
äijäl *adv*. intensely

SOURCES AND REFERENCES

SOURCES

Aht = Ahtia, E. V. 1938: *Karjalan kielioppi, I oza, Äänne- ja sanaoppi*. Suojärvi: Karjalan kansalaisseura. [Facsimile Karjalan Kielen Seura, 2009]. Available at http://kaino.kotus.fi/digitointi/pdf/Ahtian_sana-_ja_aanneoppi.pdf.

Anis = Anisimov, N. A. 1939: *Karel'skoin kielen grammatika*: nepolnoin srednein i srednein školan učebnikka. I Čuasti. Fonetika i morfologija. Petrozavodsk: Kargoizdat.

AnisF = Anisimov, N. A. 1948: *Fonetika sela Kotkozera.* Manuscript. NA KarNC RAN[179]. F. 1. Op. 43, Nro 108. Petrozavodsk.

AnisG = Anisimov, N. A. 1948: *Grammatika karel'skogo jazyka (kotkozerskij govor)*. Manuscript. NA KarNC RAN. F. 1. Op. 43, Nro 107. Petrozavodsk.

Bar = Barantsev, A. P. 1985: *Ljudikovskij dialekt karel'skogo jazyka (Fonetika i morfologija Svjatozerskogo areala)*. Manuscript. NA KarNC RAN. F. 1. Op. 6, Nro 164. Petrozavodsk.

Bel = Beljakov, A. A. 1948: *Grammatika karel'skogo jazyka: Kalininskoe narečie sobstvennokarel'skogo dialekta.* Manuscript. NA KarNC RAN. F. 1. Op. 43, Nro 110. Petrozavodsk.

Bubr = Bubrih, D. V. 1937: *Grammatika karel'skogo jazyka: (fonetika i morfologija).* Petrozavodsk: Karel'skij naučno-issledovatel'skij institut kul'tury.

GenA = Genetz, A. 1885: Tutkimus Aunuksen kielestä: Kielennäytteitä, sanakirja ja kielioppi. – *Suomi*, 2: 17. Helsingissä: SKS. 1–194.

GenL = Genetz, A. 1872: Wepsän pohjoiset etujoukot. – Ahlqvist, A. (toim.) *Kieletär*, 4, 3–32, *Kieletär*, 5, 3–26. Helsinki: J. C. Frenckell ja Poika.

GenS = Genetz, A. 1870: Kertomus Suojärven pitäjäästä ja matkustuksistani siellä v. 1867. – *Suomi*, 8. Helsinki: SKS. 201–275.

GenV = Genetz, A. 1880: *Tutkimus Venäjän Karjalan kielestä: Kielennäytteitä, sanakirja ja kielioppi*. [Suomi 2: 14]. Helsingissä: [SKS].

Manž = Manžin, K. V. 1964: *Očerk ves'egonskogo govora sobstvenno-karel'skogo dialekta karel'skogo jazyka (fonetika i morfologija)*. Manuscript. NA KarNC RAN. F. 1. Op. 5, Nro 263. Petrozavodsk.

Mark = Markianova, L. F. 2002: *Karjalan kielioppi: 5.–9*. Petrozavodsk: Periodika.

Palm = Palmeos, P. 1962: *Karjala valdai murrak*. Emakeele Seltsi Toimetised Nr. 5. Tallinn: Eesti NSV Teaduste Akadeemia.

Pyöl = Pyöli, R. 2011: *Livvinkarjalan kielioppi*. Helsinki: Karjalan Kielen Seura.

Rjag = Rjagojev, V. D. 1977: *Tihvinskij govor karel'skogo jazyka*. Leningrad: Nauka.

RjagL = Rjagojev, V. D. 1987: *Očerki po livvikovskomu dialektu karel'skogo jazyka (fonetika i morfologija)*. Manuscript. NA KarNC RAN. F. 1. Op. 6, Nrot 304–305. Petrozavodsk.

Virt = Virtaranta, P. 1986: *Haljärven lyydiläismurteen muoto-oppia*. SUST, 190. Helsinki: SUS.

Zaik = Zaikov, P. M. 1999: *Grammatika karel'skogo jazyka: Fonetika i morfologija*. Petrozavodsk: Periodika.

ZaiK = Zaikov, P. 2002: *Karjalan kielioppi: 5–9*. Petrozavodsk: Periodika.

ZaikV = Zaikov, P. 2013: *Vienankarjalan kielioppi: Lisänä harjotukšie ta lukemisto*. Helsinki: Karjalan Sivistysseura ry.

[179] Abbreviations are explained at the end of the thematic bibliography.

REFERENCES

Adeľ, E. L. 1995: *Sistema glagol'nogo slovoizmenenija padanskogo govora karel'skogo jazyka.* Avtoreferat dissertacii na soiskanie učenoj stepeni kandidata filologičeskih nauk. Moskva.

Adeľ, E. L. 1998: *Glagol'noe slovoizmenenie v karel'skom jazyke*. Petrozavodsk.

Ahmanova, O. S. 2007: *Slovar' lingvističeskih terminov*. Moskva: KomKniga.

ALFE I = *Atlas Linguarum Fennicarum: = Itämerensuomalainen kielikartasto = Läänemeresoome keeleatlas = Ostseefinnischer Sprachatlas = Lingvističeskij atlas pribaltijskofinskih jazykov*. I. S. Suhonen (ed.). Helsinki: Kotus, SKS. 2004.

Ahtia, E. V. 1938: *Karjalan kielioppi, I oza, Äänne- ja sanaoppi*. Suojärvi: Karjalan kansalaisseura. [Facsimile Karjalan Kielen Seura, 2009]. Available at http://kaino.kotus.fi/digitointi/pdf/Ahtian_sana-_ja_aanneoppi.pdf.

Anisimov, N. A. 1939: *Karel'skoin kielen grammatika*: nepolnoin srednein i srednein školan učebnikka. I Čuasti. Fonetika i morfologija. Petrozavodsk: Kargoizdat.

Anisimov, N. A. 1948: *Fonetika sela Kotkozera*. Manuscript. NA KarNC RAN. F. 1. Op. 43, Nro 108. Petrozavodsk.

Anisimov, N. A. 1948: *Grammatika karel'skogo jazyka (kotkozerskij govor).* Manuscript. NA KarNC RAN. F. 1. Op. 43, Nro 107. Petrozavodsk.

Anttikoski, E. s.a.: *O formirovanii karel'skogo jazyka*. Available at http://www.kirjazh.spb.ru/karel/ant1.htm. Accessed: 15.12.2016.

Anttikoski, E. 1998: *Neuvostoliiton kielipolitiikkaa: Karjalan kirjakielen suunnittelu 1930-luvulla*. Licentiate thesis. Joensuun yliopisto. Available at http://www.oocities.org/esaanttikoski/lisuri.html. Accessed 7.11.2016.

Atlas = Bubrih, D. V., Beljakov, A. A. & Punžina, A. V. *Karjalan kielen murrekartasto*. L. Sarvas (ed.). Kotuksen julkaisuja, 97. Helsinki: Société Finno-Ougrienne. 1997.

Barantsev, A. P. 1975: *Fonologičeskie sredstva ljudikovskoj reči*. Leningrad: Nauka.

Beljakov, A. A. 1949: *Fonetika karel'skogo dialekta s. Tolmači Kalininskoj obl.* – SFU 5. Petrozavodsk: Gosizdat Karelo-finskoj SSR. 67–98.

Beljakov, A. A. 1958: Jazykovye javlenija, opredeljajuščie granicy dialektov i govorov karel'skogo jazyka v KarASSR. – *Pribaltijsko-finskoe jazykoznanie*, 12. Petrozavodsk: Gosizdat. Karel'skoj ASSR. 49–62.

BKRS = Bojko, T. P. & Markianova, L. F. *Bol'šoj russko-karel'skij slovar' (livvikovskoe narečie)*. Petrozavodsk: Verso. 2011.

Bubrih, D. V. & Anisimov, N. A. *Programma po sobiraniju materiala dlja dialektologičeskogo atlasa karel'skogo jazyka*. 2-e izd., dop. Petrozavodsk: Gosizdat. Karelo-Finskoj SSR. 1946.

Bubrih, D. V. 1937: *Grammatika karel'skogo jazyka: (fonetika i morfologija)*. Petrozavodsk: Karel'skij naučno-issledovatel'skij institut kul'tury.

Bubrih, D. V. 1947a: *Proishoždenie karel'skogo naroda: Povest' o sojuznike i druga russkogo naroda na severe*. Petrozavodsk: Gosizdat Karelo-finskoj SSR. Available at http://www.kirjazh.spb.ru/biblio/bubrih/bubrih0.htm. Accessed 10.11.2016.

Bubrih, D. V. 1947b: Svistjaščie i šipjaščie soglasnye v karel'skih dialektah. – *Učenye zapiski LGU*, 2. 129–159.

Bubrih, D. V. 1948: Istoričeskoe prošloe karel'skogo naroda v svete lingvističeskih dannyh. – *Izvestija Karelo-finskoj bazy Akademii nauk SSSR*. Petrozavodsk: Izdanie Karelo-finskoj bazy AN. 42–50.

Bubrih, D. V. 1971: Russkoe gosudarstvo i formirovanie karel'skogo naroda. – *Pribaltijskofinskoe jazykoznanie. Voprosy vzaimodejstvija pribaltijsko-finskih jazykov s*

inosistemnymi jazykami: K 80-letiju so dnja roždenija D. V. Bubriha. Leningrad: Nauka. 3–22.

Bubrih, D. V. 2005: *Pribaltisko-finskoe jazykoznanie: Izbrannye trudy.* G. M. Kert, L. I. Suviženko (ed.). Sankt-Petersburg: SPbGU.

DKT = Õispuu, J. *Djoržakarjala tekstid*. Tallinn: Tallinna Pedagoogiline instituut. 1990.

Dubrovina, Z. M. 1956: Ob obrazovanii vtoričnyh padežej iz poslelożnyh konstrukcij v pribaltijsko-finskih jazykah. – *Vestnik LGU*, 14. 69–86.

Eliseev, Ju. S. 1959: Drevnejšij pis'mennyj pamjatnik odnogo iz pribaltijsko-finskih jazykov. – *Izvestija Akademii nauk OLJA*, 18. 65–72.

Genetz, A. 1870: Kertomus Suojärven pitäjäästä ja matkustuksistani siellä v. 1867. – *Suomi*, 8. Helsinki: SKS. 201–275.

Genetz, A. 1872: Wepsän pohjoiset etujoukot. – Ahlqvist A. (ed.) *Kieletär*, 4, 3–32, *Kieletär*, 5, 3–26. Helsinki: J. C. Frenckell ja Poika.

Genetz, A. 1880: *Tutkimus Venäjän Karjalan kielestä: Kielennäytteitä, sanakirja ja kielioppi*. [Suomi 2: 14]. Helsinki: [SKS].

Genetz, A. 1885: Tutkimus Aunuksen kielestä: Kielennäytteitä, sanakirja ja kielioppi. – *Suomi* 2: 17. Helsinki: SKS. 1–194.

Haidu, P. 1985: *Ural'skie jazyki i narody.* Moskva: Progress.

Hakulinen, L. 1979: *Suomen kielen rakenne ja kehitys* (4th ed.) Helsinki: Otava.

Hint, M. 1981: Neodnorodnosť sistem čeredovanija stupenej èstonskogo jazyka. – *SFU*, 17. 247–265.

Häkkinen, K. 1985: *Suomen kielen äänne- ja muotorakenteen historiallista taustaa.* Turku: Åbo Akademi.

Hämynen, T. 1998: Rajako railona aukeaa? – *Genos*. Suomen Sukututkimusseuran aikakauskirja 69. 2–12.

Hämäläinen, M. M. 1961: O razvitii vnutrenne-mestnyh padežej v severo-vostočnoj gruppe pribaltijsko-finskih jazykov. – *Pribaltijsko-finskoe jazykoznanie*. Moskva-Leningrad: Izd-vo Akademii nauk, 84–109.

IKMN = Leskinen, E. *Itäkarjalaismurteiden näytteitä*. Helsinki: SKS. 1956.

Itogi = *Toma oficial'noj publikacii itogov Vserossijskoj perepisi naselenija 2010 goda*. Available at http://www.gks.ru/free_doc/new_site/perepis2010/croc/perepis_itogi1612-tom4.htm. Accessed 5.11.2016.

Itkonen, T. 1968: Itäsuomalaisen liudennuksen fonologinen paradoksi. – *Fenno-Ugrica: Juhlakirja Lauri Postin kuusikymmenvuotispäiväksi 17.3.1968*. Helsinki: SUS. 76–116.

Itkonen, T. 1971: Aunuksen äänneopin erikoispiirteet ja aunukselaismurteiden synty. – *Virittäjä*, 75, 153–185.

Itkonen, T. 1983: Välikatsaus suomen kielen juuriin. – *Virittäjä*, 87, 190–229, 349–386.

Itkonen, T. 1995: Lyydiläismurteiden triftongeista. – Palander, M. et al. (ed.) *Murteiden matkassa: Juhlakirja Alpo Räisäsen 60-vuotispäiväksi*. Joensuu: Joensuun yliopiston humanistinen tiedekunta. 81–91.

JAN SSSR III = *Jazyki narodov SSSR: Finno-ugorskie i samodijskie jazyki*. T. III. Moskva: AN SSSR. 1966.

Junus, V. I. 1936: *Izoran keelen grammatikka: Morfologia*. Moskova-Leningrad: Riikin učpedgiz.

Kalima, J. 1934: Entisen Käkisalmen läänin alueen aikaisemmasta kielimuodosta. – *Virittäjä*, 38. 254–256.

Kalima, J. 1952: *Slaavilaisperäinen sanastomme: Tutkimus itämerensuomalaisten kielten slaavilaisista lainasanoista.* Helsinki: SKS.

Karely = Žerbin, A. S. et al. *Karely Karel'skoj ASSR.* Petrozavodsk: Karelija. 1983.

Karjala 2018 = Kotus's website on the Karelian language. Available at

https://www.kotus.fi/kielitieto/kielet/karjala. Accessed 7.10.2018.
Karjalainen et al. = Karjalainen, H., Puura, U., Grünthal, R. & Kovaleva, S. 2013: *Karelian in Russia: ELDIA case-specific report.* Mainz; Wien; Helsinki; Tartu; Mariehamn; Oulu; Maribor: ELDIA.
Kert, G. M. 1983: Karel'skij jazyk. – Žerbin, A. S. et al. *Karely Karel'skoj ASSR*. Petrozavodsk: Karelija. 63–75.
Kert, G. M. & Rjagojev, V. D. 1997: Preface to the "Dialect Atlas of the Karelian Language". – Bubrih, D. V., Beljakov, A. A. & Punžina, A. V. *Dialektologičeskij atlas karel'skogo jazyka: Karjalan kielen murrekartasto.* L. Sarvas (ed.). Kotuksen julkaisuja 97. Helsinki: Société Finno-Ougrienne, 1–4.
Kettunen, L. 1915: Passiivin tunnuksesta. – *Virittäjä*, 19. 107–112.
Kettunen, L. 1940: Karjalaisen heimon ja "karjalan kielen" ijästä ja alkuperästä. – *Virittäjä*, 44. 129–144, 282–301.
Kirkinen, H. 1994: Karjalan historia juurista Uudenkaupungin rauhaan. – Kirkinen H., Nevalainen P. & Sihvo H. (ed.) *Karjalan kansan historia.* Porvoo: WSOY. 13–171.
KKMK = *Karjalan kielen murrekartaston klusterikartat* [= Cluster maps of the Dialect Atlas of the Karelian Language]. Available at karjalankieliopit.krc.karelia.ru.
KKN II = Leskinen, E. *Karjalan kielen näytteitä II. Aunuksen ja Raja-Karjalan murteita.* Helsinki: SKS. 1934.
KKS = *Karjalan kielen sanakirja*. Helsinki: SUS. I – 1968; II – 1974; III – 1983; IV – 1993; V – 1997; VI – 2005. Helsinki: SUS.
KKVS = *Karjalan kielen verkkosanakirja*. M. Torikka (ed.). Kotuksen verkkojulkaisuja 18. Helsinki. 2009. Available at http://kaino.kotus.fi/cgi-bin/kks/kks_etusivu.cgi.
Kočkurkina, S. I. 1987: *Drevnie karely*. Petrozavodsk: Karelija.
Kovaleva, S. V. & Rodionova, A. P. 2011: *Tradicionnoe i novoe v leksike i grammatike karel'skogo jazyka.* Petrozavodsk: KarNC RAN.
Kross, K. 1983: Die Grenze zwischen dem Kasus und dem Adverb im Instruktiv der ostseefinnischen Sprachen. – *SFU*, 19. 241–253.
Kujola, Joh. 1910: Äänneopillinen tutkimus Salmin murteesta. *Suomi* 4: 10. Helsinki: SKS.
Kujola, J. 1922: *Karjalan kielen opas: Kielennäytteitä ja sanasto*. Helsinki: SUS.
Kuz'min, D. V. 2008: Toponimija tihvinskoj korely: interpretacija èkspedicionnyh materialov. – *Voprosy onomastiki.* 5. Ekaterinburg: Izd-vo Ural'skogo universiteta. 192–200.
Laakso, J. 1999: Vielä kerran itämerensuomen vanhimmista muistomerkeistä. – *Virittäjä*, 103. 531–555.
Laanest, A. 1966: *Ižorskie dialekty: Lingvogeografičeskoe issledovanie*. Tallin: Valgus.
Laanest, A. 1972: Itämerensuomalaisten kielten ryhmityskysymyksiä. – *Virittäjä*, 76. 113–120.
Laanest, A. 1976: Über die Entwicklung der schwachen Stufe von k und t im Ižorischen und in nachverwandten Sprachen. – *SFU*, 10. 171–178.
Larjavaara, M. 1986: Itämerensuomen koillisryhmän synkretistiset paikallissijat. – *Virittäjä*, 90. 413–427.
Lehtinen, T. 1982: Karjalan supistumaverbien imperfektityypit: tyyppien ikäsuhteista erityisesti vienalaismurteiden valossa. – *Virittäjä*, 86. 1–21.
Lehtinen, T. 2007: Kielen vuosituhannet: Suomen kielen kehitys kantauralista varhaissuomeen. *Tietolipas* 215. Helsinki: SKS.
LÈS = *Lingvističeskij ènciklopedičeskij slovar'*. Pod red. V. N. Jarcevoj. Moskva: Sovetskaja ènciklopedija. 1990. Available at http://tapemark.narod.ru/les/.
Leskinen, E. 1933: *Tulemajärven murteen vokalismi.* Helsinki: SKS.
Lesknen, H. 1963: *Luoteis-Laatokan murteiden äännehistoria. I. Konsonantit.* Helsinki: SKS.
Leskinen, H. 1964: Suomen itämurteet keskiajan ja uuden ajan taitteessa. – *Virittäjä*, 68. 97–115.

Leskinen, H. 1967: Eräs aunuksen imperatiivimuodoste. – *Virittäjä*, 71, 256–258.
Leskinen, H. 1976: Karjalaiset ja savolaiset kielentutkimuksen näkökulmasta. – *Karjalan synty symposio 1976: alustukset.* Joensuu: Joensuun korkeakoulu. 102–109.
Leskinen, H. 1979: *Suomen murteiden historia I*. Jyväskylä: [Jyväskylän yliopisto].
Leskinen, H. 1990: Vepsän, karjalan ja inkeroisen asemasta kolmen äännepiirteen valossa. – *Itämerensuomalaiset kielikontaktit: Itämerensuomalainen symposium 7. kansainvälisessä fenno-ugristikongressissa Debrecenissä 27.8–1.9.1990.* Helsinki: Valtion painatuskeskus. 72–79.
Leskinen, H. 1998: Karjala ja karjalaiset kielentutkimuksen näkökulmasta. – Nevalainen P. & Sihvo H. *Karjala: Historia, kansa, kulttuuri.* Helsinki: SKS. 352–382.
Liljeblad, T. 1931: *Tunkuan murteen konsonantismi: Käsiteltynä myöhäiskantasuomesta lähtien.* Helsinki: SKS.
LKN = Ojansuu, H. *Lyydiläisiä kielennäytteitä*. Helsinki: SUS. 1934.
LMS = Donner, K. & Kujola, J. *Lyydiläismurteiden sanakirja*. Helsinki: SUS. 1944.
LSK = Virtaranta, P. & Suhonen, S. (ed.) *Lähisukukielet: Karelian, Ludic, Vepsian, Ingrian, Votic, Livonian = Finnic languages.* Helsinki: SKS. 1978.
Majtinskaja, K. E. 1979: *Istoriko-sopostavitel'naja morfologija finno-ugorskih jazykov*. Moskva: Nauka.
Makarov, G. N. 1966: Karel'skij jazyk. – *Jazyki narodov SSSR. T. III. Finno-ugorskie i samodijskie jazyki.* Moskva: Nauka. 61–80.
Markianova, L. F. 2002: *Karjalan kielioppi: 5–9.* Petrozavodsk: Periodika.
Mullonen, I. I. 2007: *Vvedenie v finno-ugrovedenie* = Johdatusta fennougristiikkaan. Petrozavodsk: Izd-vo PertGU.
Nirvi, R. E. 1932: *Suistamon keskusmurteen vokalismi.* Helsinki: SKS.
Nirvi, R. E. 1961: Inkeroismurteiden asema. – Haavio, M. et al. *Kalevalaseuran vuosikirja*. 41. Porvoo: WSOY. 99–136.
Novak, I. P. 2014: *Stanovlenie al'ternacionnoj sistemy soglasnyh karel'skoj dialektnoj reči*. Petrozavodsk: KarNC RAN.
Novak, I. P. 2016: *Tverskie dialekty karel'skogo jazyka: Fonetika. Fonologija.* Petrozavodsk: KarNC RAN.
OFUJA = Lytkin, V. I., Majtinskaja, K. E. & Reden, K. *Osnovy finno-ugorskogo jazykoznanija: Pribaltijsko-finskie, saamskij i mordovskie jazyki*. Moskva: Nauka. 1975.
Ojansuu, H. 1905: *Karjalan äänneoppi.* Helsinki: SKS.
Ojansuu, H. 1907: *Karjalan kielen opas: Kielennäytteitä, sanakirja ja äänneopillisia esimerkkejä.* Helsinki: SKS.
Ojansuu, H. 1918: *Karjala-Aunuksen äännehistoria.* Helsinki: SKS.
Ojansuu, H. 1922: *Itämerensuomalaisten kielten pronominioppia*. Volume 1, Number 3. Annales Universitatis Fennicae Aboensis, Series B, Humaniora. Turku: Turun Suomalaisen Yliopiston Kustantama.
OKR = Rjagojev, V. & Jeskanen, M. *Näytteitä karjalan kielestä: Obrazcy karel'skoj reči. 1, Karjalan tasavallan ja Sisä-Venäjän karjalaismurteet = Govory respubliki Karelii, tihvinskih i tverskih karel.* Joensuu-Petrozavodsk: Joensuun yliopisto. 1994.
OKRKG = Makarov, G. N. *Obrazcy karel'skoj reči: Kalininskie govory.* Moskva-Leningrad: Izdatel'stvo AN SSSR. 1963.
OKRLD = Makarov, G. N. & Rjagojev, V. D. *Obrazcy karel'skoj reči: govory livvikovskogo dialekta karel'skogo jazyka*. Leningrad. Nauka. 1969.
OLR = Barantsev, A. P. *Obrazcy ljudikovskoj reči: Obrazcy korpusa ljudikovskogo idiolekta*. Petrozavodsk: Karelija. 1978.
Palander, M. 2001: Välimurteiden idiolektit. – *Virittäjä*, 105. 22–43.
Palmeos, P. 1962: *Karjala valdai murrak*. Tallinn: Eesti NSV Teaduste Akadeemia.

Palmeos, P. 1966: Über den Vokalismus der Zubcover Mundart des Karelischen. – *SFU*, 1. 1–5.
PFNR = *Pribaltijsko-finskie narody Rossii.* Otv. red. Klementʹev, E. I. & Šlygina, N. V. Moskva: Nauka. 2003.
Posti, L. 1942: *Grundzüge der livischen Lautgeschichte.* Helsinki: SUS.
Programmy = *Programmy po sobiraniju materialov dlja dialektologičeskogo atlasa karelʹskogo jazyka.* 1937. NA KarNC RAN. F. 1. Op. 38, Nrot 21–167.
Punttila, M. 1992: *Impilahden karjalaa*. Helsinki: SUS.
Pyöli, R. 2011: *Livvinkarjalan kielioppi*. Helsinki: Karjalan Kielen Seura.
Rapola, M. 1966: *Suomen kielen äännehistorian luennot.* Helsinki: SKS.
Rjagojev, V. D. 1977: *Tihvinskij govor karelʹskogo jazyka.* Leningrad: Nauka.
Rjagojev, V. D. 1993: Karelʹskij jazyk. – *Jazyki mira. Uralʹskie jazyki.* Moskva: Nauka. 63–76.
Rjagojev, V. D. 1994: Prolativnye obrazovanija na -čči,-či. – *Pribaltijsko-finskoe jazykoznanie.* Petrozavodsk: KarNC RAN. 19–27.
Rjagojev, V. D. 2001: Karelʹskij jazyk. – *Jazyki Rossijskoj Federacii i sosednih gosudarstv*. II. Moskva: Nauka. 75–85.
Rjagojev, V. D. 2003: Karelʹskij jazyk. – *Pribaltijsko-finskie narody Rossii.* Otv. red. Klementʹev E. I. & Šlygina N. V. Moskva: Nauka. 185–192.
Rodionova, A. P. 2015: *Semantika karelʹskoj grammatiki.* Petrozavodsk: KarNC RAN.
Rodionova et al. 2017 = Rodionova, A. P., Nagurnaja, S. V. & Čikina, N. V. *Ljudiki: voprosy sohranenija jazyka i kulʹtury. Issledovanija i materialy.* Petrozavodsk: KarNC RAN.
Sammallahti, P. 1977: Suomalaisten esihistorian kysymyksiä. – *Virittäjä*, 81. 119–136.
Sarhimaa A. 2013: *Karjalan kieli Šuomešša: ELDIA-projektin tulokšie. ELDIA-projektin tulokšie. Lyhennykšen šuomenkieliseštä raportista vienakši kiänti Valentina Karakina.* Studies in European Language Diversity 27.4. Mainz; Wien; Helsinki: ELDIA. Available at https://phaidra.univie.ac.at/detail_object/o:409756.
Sarhimaa, A. 2017: *Vaietut ja vaiennetut: Karjalankieliset karjalaiset Suomessa.* Tietolipas 256. Helsinki: SKS.
SKG = Punžina A. V. 2001: *Slušaju karelʹskij govor: obrazcy reči deržanskih i valdajskih karel = Kuundelen karielasta paginatabua: Ďoržan da Valdain karelian murrehtekstat.* Petrozavodsk: Periodika.
Torikka, M. 2004: *Karjala – kieli, murre, paikka*. Kotuksen julkaisuja 129. Available at http://scripta.kotus.fi/www/verkkojulkaisut/julk129/index.shtml. Accessed 15.10.2018.
Tunkelo, E. A. 1938: Vepsän kielen astevaihteluttomuudesta. *Suomi*, 5: 20. Helsinki: SKS.
Tunkelo, E. A. 1946: *Vepsän kielen äännehistoria*. SKST, 228. Helsinki: SKS.
Tuomi, T. 1990: Itämurteiden loi-monikosta ja eräistä sekundaareista monikon merkeistä. – Suni H. (ed.) *Laatokan piiri: Juhlakirja Heikki Leskisen 60-vuotispäiväksi 10.10.1990*. Kotuksen julkaisuja 60. Helsinki: VAPK-kustannus. 190–200.
Turunen, A. 1946: *Lyydiläismurteiden äännehistoria I. Konsonantit.* SUST 89. Helsinki: SUS.
Turunen, A. 1950: *Lyydiläismurteiden äännehistoria II. Vokaalit.* SUST 99. Helsinki: SUS.
Turunen, A. 1959: *Itäisten savolaismurteiden äännehistoria.* SKST 253. Helsinki: SKS.
Turunen, A. 1982: Raja-Karjalan murteet. – Heikkilä, R. et al. *Karjala: 2, Karjalan maisema ja luonto.* Hämeenlinna: Karisto. 65–89.
Učenye = Učenye Karelʹskogo naučnogo centra Rossijskoj akademii nauk: biografičeskij slovarʹ. 3-e dop. i pererab. izd. Petrozavodsk: KarNC RAN. 2012.
Uino, P. 1991: *Inkerinmaan esihistoria. – Inkeri – historia, kansa, kulttuuri.* SKST 547. Helsinki: Finnish Literature Society. 11–34.
Uusitupa et al. 2017 = Uusitupa, M., Koivisto, V. & Palander, M. Raja-Karjalan murteet ja raja-alueiden kielimuotojen nimitykset. – *Virittäjä*, 1. 67–106.
Virtaranta, P. 1946: Eteläkarjalaisten murteiden s. – *Suomi*, 104. Helsinki: SKS. 1–39.
Virtaranta, P. 1961: *Tverin karjalaisten entistä elämää*. Porvoo: WSOY

Virtaranta, P. 1972: Die Dialekte des Karelischen. – *SFU*, 1. 7–27.
Virtaranta, P. 1973: Über den olonetzischen Konduši-Dialekt. – *FUF*, 40. 259–277.
Virtaranta, P. 1984: Über das s im Karelischen. – Hajdú, P. & Honti, L. *Studien zur phonologischen Beschreibung uralischer Sprachen.* Budapest: Akadémiai Kiadó. 259–274.
Virtaranta, P. 1986: *Haljärven lyydiläismurteen muoto-oppia.* SUST, 190. Helsinki: SUS.
Virtaranta, P. 1992: *Ètjudy o kareľskoj kul'ture. Ljudi i sud'by. [Karjalaisia kulttuurikuvia].* Petrozavodsk: Karelija.
VISK = Vilkuna, M. (ed.) 2008: *Iso suomen kielioppi.* Kotuksen verkkojulkaisuja, 5. Helsinki: Kotus. Available at http://scripta.kotus.fi/visk/etusivu.php.
Wiik, K. 2004: Karjalan kielen murteet. Kvantitatiivinen tutkimus. – Klesment, P. et al. *Uralistika müüdid ja faktid = Myths and facts in uralistics.* Tartu: Tartu ülikool. Uurali keelte haru. 39–302.
Zaikov, P. M. 1999: *Grammatika kareľskogo jazyka: Fonetika i morfologija.* Petrozavodsk: Periodika.
Zaikov, P. M. 2000: *Glagol v kareľskom jazyka: (grammatičeskie kategorii lica-čisla, vremeni i naklonenija).* Petrozavodsk: Izd-vo PetrGU.
Zaikov, P. 2002: *Karjalan kielioppi: 5–9.* Petrozavodsk: Periodika.
Zaikov, P. 2013: *Vienankarjalan kielioppi: Lisänä harjotukšie ta lukemisto.* Helsinki: Karjalan Sivistysseura ry.
Zaikov, P. M. 2014: Distribucija i fonologičeskij status /s/ i /š/ v dialektah kareľskogo jazyka. – *Finno-ugorskie jazyki i kul'tury v sociokul'turnom landšafte Rossii: materialy V Vserossijskoj konferencii finno-ugrovedov*. Petrozavodsk, 25–28 ijunja 2014 g. Petrozavodsk: KarNC RAN. 11–13.
Zaitseva, N. G. 1981: *Imennoe slovoizmenenie v vepsskom jazyke*. Petrozavodsk: Karelija.
Zaitseva, N. G. 2002: *Vepsskij glagol: Sravniteľno-sopostaviteľnoe issledovanie*. Petrozavodsk: Periodika.
Zaitseva, N. G. 2016: *Očerki vepsskoj dialektologii (lingvogeografičeskij aspekt)*. Petrozavodsk: KarNC RAN.
Žerbin, A. S. 1956: *Pereselenie karel v Rossiju v XVII veke*. Petrozavodsk: Gosizdat. KareloFinskoj SSR.
Zlobina, V. 1967: O nekotoryh zvukovyh izmenenijah v odnom iz govorov kareľskogo jazyka. – *SFU*, 3. 97–99.
Õispuu, J. 1985: Zur Synkope und Apokope in Verbparadigma der Djorža-Mundart des Karelischen. – *SFU*, 3. 171–181.
Õispuu, J. 1988: *Djorža-Karjalan nominitaivutus.* Tallinna: Eesti NSV Teaduste Akadeemia.
Õispuu, J. 1994: *Karjala keelesaarte sõnamuutmissüsteem: Inflectiona system of Karelian enclaves.* Tallinn: Tallinna Pedagoogikaülikool.

UNPUBLISHED MATERIALS

Anisimov, N. A. 1948: *Fonetika sela Kotkozera*. Manuscript. NA KarNC RAN. F. 1. Op. 43, Nro 108. Petrozavodsk.
Anisimov, N. A. 1948: *Grammatika kareľskogo jazyka (kotkozerskij govor).* Manuscript. NA KarNC RAN. F. 1. Op. 43, Nro 107. Petrozavodsk.
Barantsev, A. P. 1985: *Ljudikovskij dialekt kareľskogo jazyka (Fonetika i morfologija Svjatozeskogo areala).* Manuscript. NA KarNC RAN. F. 1. Op. 6, Nro 164. Petrozavodsk.
Beljakov, A. A. 1948: *Grammatika kareľskogo jazyka: Kalininskoe narečie sobstvenno-kareľskogo dialekta.* Manuscript. NA KarNC RAN. F. 1. Op. 43, Nro 110. Petrozavodsk.
Manžin, K. V. 1964: *Očerk ves'egonskogo govora sobstvenno-kareľskogo dialekta kareľskogo jazyka.* Manuscript. NA KarNC RAN. F. 1. Op. 5, Nro 263. Petrozavodsk.
Rjagojev, V. D. 1987: *Očerki po livvikovskomu dialektu kareľskogo jazyka (fonetika i*

morfologija). Manuscript. NA KarNC RAN. F. 1. Op. 6, Nrot 304–305. Petrozavodsk.

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translative case → *case*
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triphthongisation *44, 47*

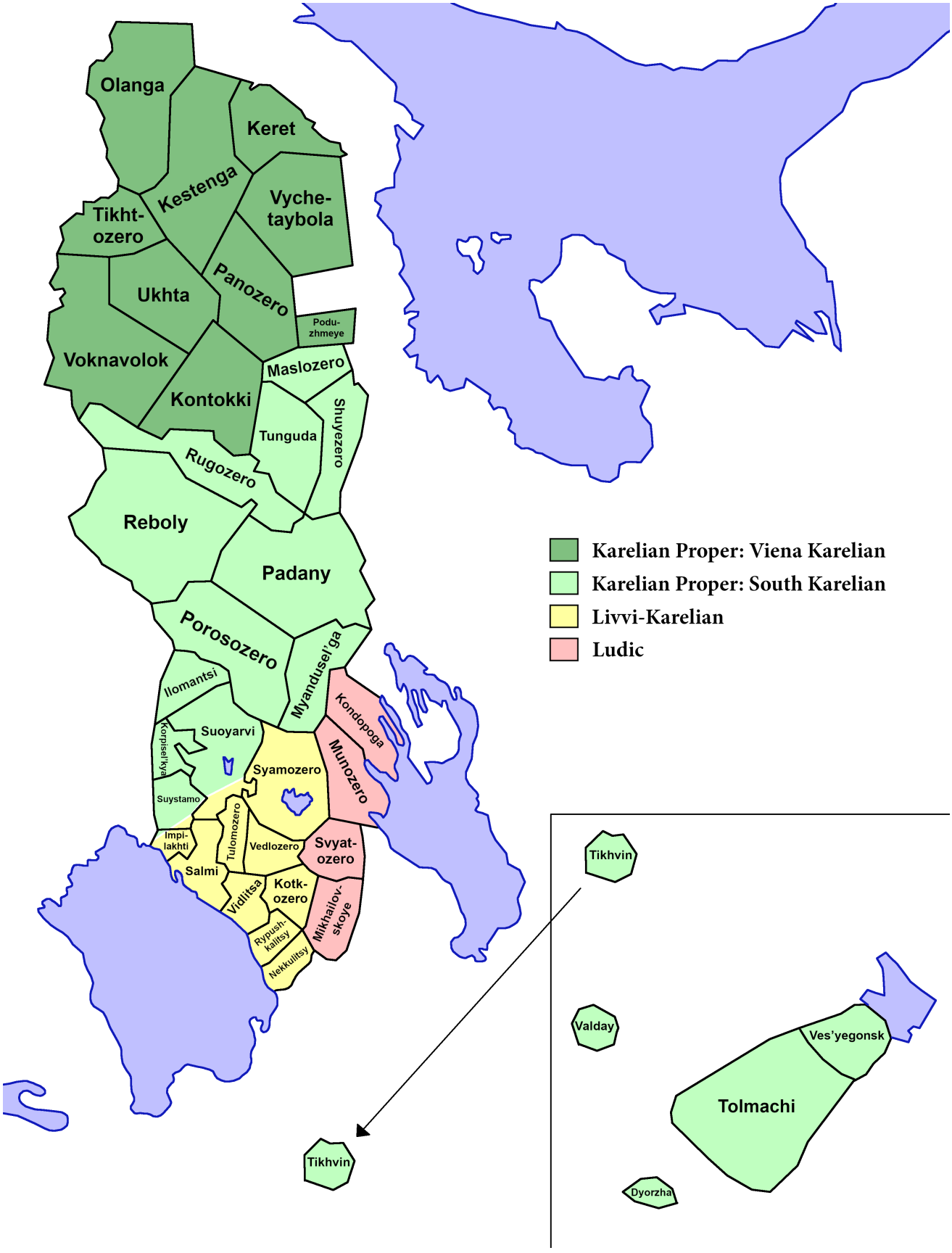
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vowel system *67, 68, 85*
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vowel change *35, 67, 162*
vowel harmony ***48****, 115*
vowel sequence *40–42, 46, 67, 68, 75, 146*
vowel stem → *stem*

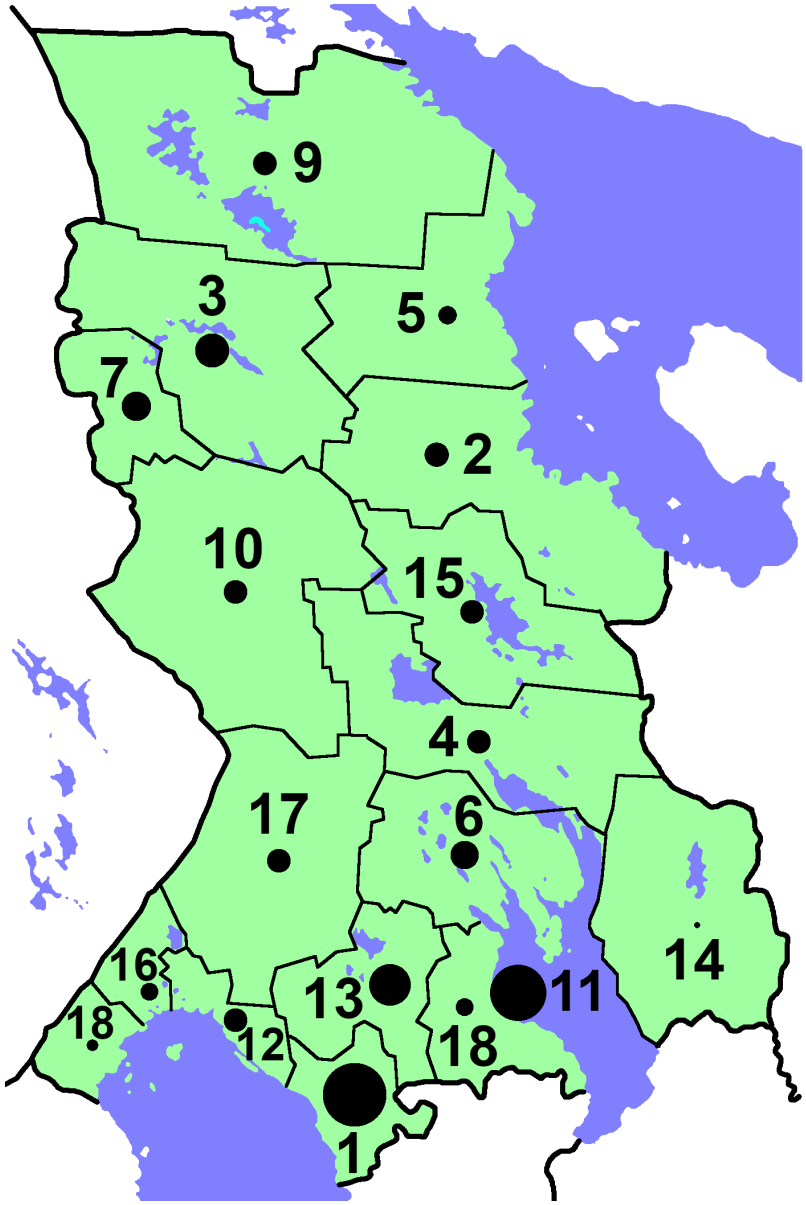
weak grade → *consonant gradation*
weak stem → *stem*
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word formation *42, 44, 48, 66, 71*
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APPENDICES

Appendix A. Map of Karelian dialects



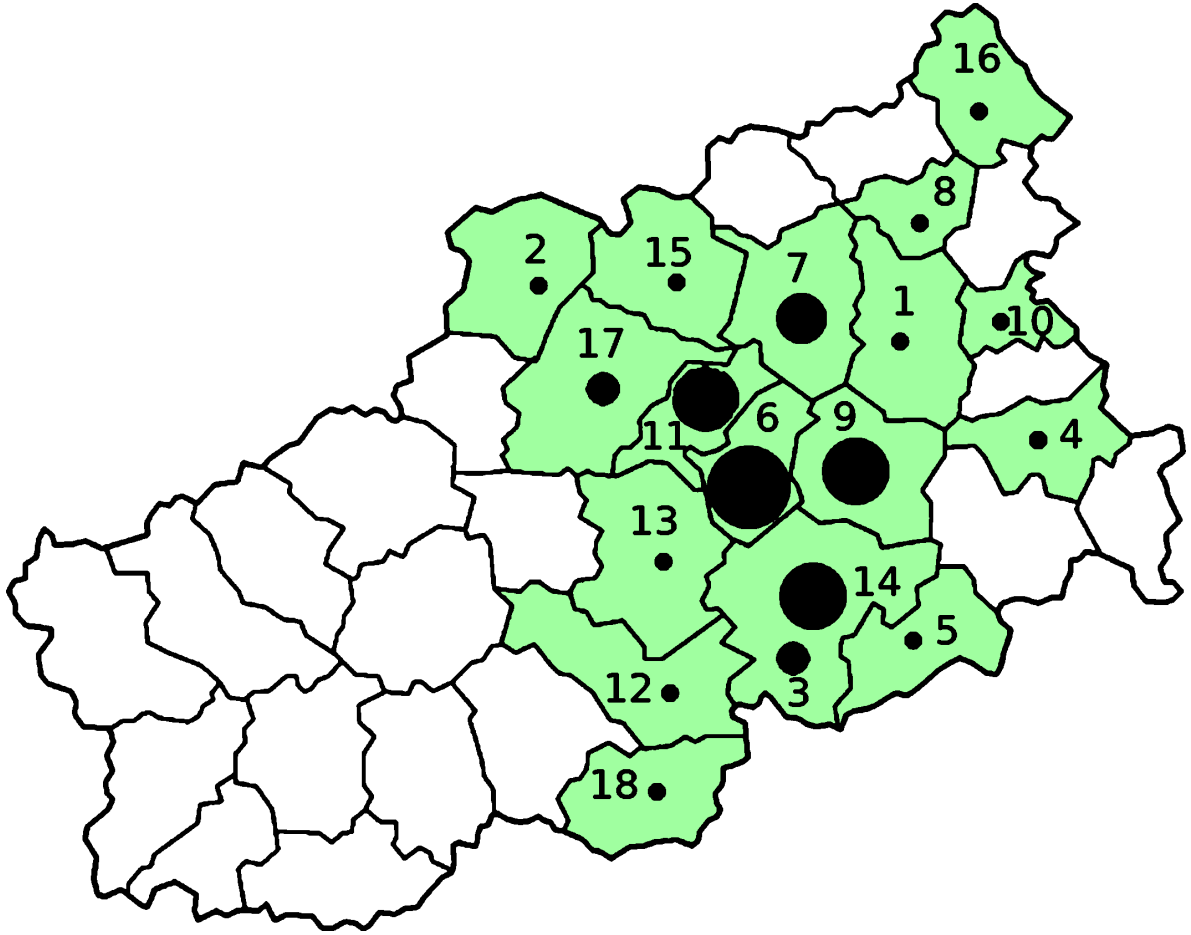
Appendix B. Number of Karelians in Republic of Karelia (census of 2010)



Republic of Karelia

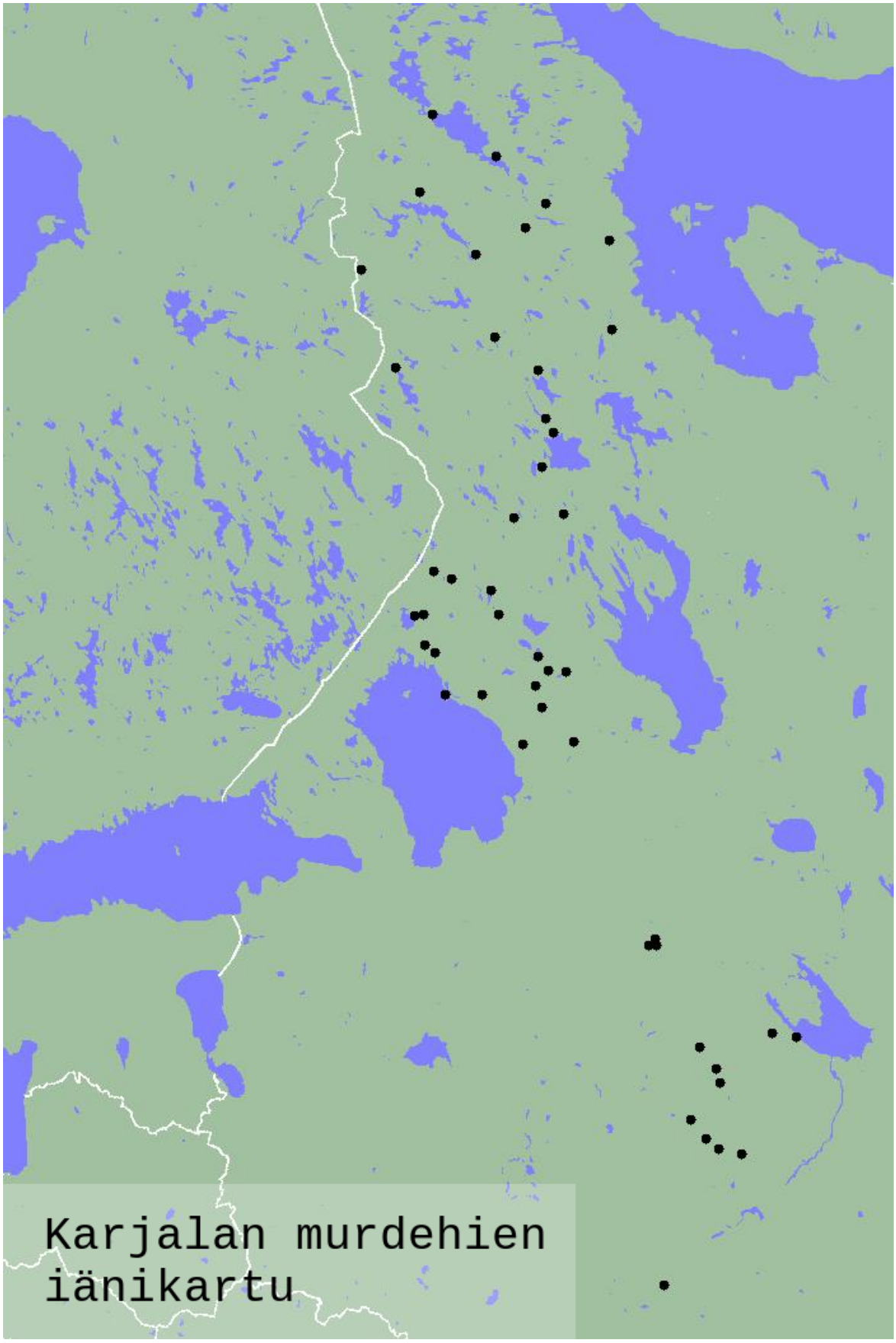
No	District	Karelians
1	Olonetsky	11,951
2	Belomorsky	940
3	Kalevalsky	2,943
4	Medvezhyegorsky	1,428
5	Kemsky	734
6	Kondopozhsky	2,367
7	Kostomuksha (town)	1,849
8	Lakhdenpohsky	233
9	Loukhsky	1,857
10	Muyezersky	1,333
11	Petrozavodsk (town)	9,889
12	Pitkyarantsky	1,316
13	Pryazhinsky	4,573
14	Pudozhsky	151
15	Segezhky	984
16	Sortavalsky	745
17	Suoyarvsky	1,527
18	Prionezhsky	750
	TOTAL	45,570

Appendix C. Number of Karelians in Tver oblast (census of 2010)



		Tver oblast
No	**District**	**Karelians**
1	Bezhetskiy	42
2	Bologovskiy	26
3	Kalininiskiy	332
4	Kashinskiy	18
5	Konakovskiy	90
6	Likhoslavl'skiy	2,462
7	Maksatikhinskiy	881
8	Molokovskiy	17
9	Rameshkovskiy	903
10	Sonkovskiy	12
11	Spirovskiy	978
12	Staritskiy	21
13	Torzhoksiy	49
14	Tver, City of	1,119
15	Udomel'skiy	57
16	Ves'yegonskiy	61
17	Vyshnevolotskiy	170
18	Zubtsovskiy	10
	TOTAL	7,248

Appendix D. Audio map of Karelian dialects (screenshot)



http://karjalankieliopit.krc.karelia.ru/ianikartu/index.html

Appendix E. Karelian toponyms in Russian, Karelian, and Finnish

Toponyms		
Russian	**Karelian**	**Finnish**
Alozero	Alajärvi	Alajärvi
Andriyanikha	Ondrein'iiva	
Antsifarovo	Ončufuarova	
Aržanoye	Ruis'puwsta	
Astashikha	Ostašiha	
Batikha	Bat'iha	
Bludnitsy	Bludn'ičča	
Bol'shaya Sel'ga	Suuri Sel'gi, Il'l'anselgy	Suuriselkä
Bol'shiye Gory	Mägi, Suurimägi	Suurimäki
Bol'shoye Ploskoye	Šuwri Ploskoi	
Bol'shoye Vozdviženiye	Sviiž'en'ie	
Bor	Boru	
Boyarskaya	Kälkäjärvi	Kälkäjärvi
Chalkosel'ga	Čalki, Čalkinkylä	Tšalkki
Chebino	Čoben(e)	Tšobene
Chernyagino	Čerď'iäď'nä	
Denisovo	Den'is'sövä	
Dyudikovo	Dyit'kövä	
Essoyla	Jessoilu, D'essoilu	Jessoila
Gabozero	Huabarvi	Haapajärvi
Gallezero		Haljärvi
Gavrilovka	Gaul'isto	Gaulisto
Gimoly	Himol'a	Himola
Gizhezero	Hiižarvi	Hiisjärvi
Gomsel'ga	Homsel'g, Homsel'gänkylä	Homselkä
Gutsel'ga	Huutselgy	Huutselkä
Hlevnavolok	Leevyn'iemi, N'iemi	Lääväniemi
Ilomantsi		Ilomantsi
Impilakhti	Imbilahti	Impilahti
Kallivarakka	D'emosenvuara, Jemosenvuara, Kalivoara	Jemozenvaara
Kamennoye ozero	Kivijärvi	Kivijärvi

Kangozero	Kangasjärvi	Kangasjärvi
Karel'skaya Masel'ga	Moaseľgä	Maaselkä
Karel'skiy Gorodok	Gorotka	
Kashkany	Kaškan	Kaškana
Kavgozero	Kaugoiď'ärvi, D'ärvi	Kaugoijärvi
Keret	Kieretti	Kieretti
Kesten'ga	Kiestinki	Kiestinki
Kimasozero	Kiimaisjärvi	Kiimaisjärvi
Kimovaara	Kiima(n)voara	Kiimanvaara
Kinelakhta	Kin'alahti, Kin'älahti	Kinälahti
Kizhala	Kiiď'žal	Kiidžala
Klimantino	Kl'iment'ina	
Klyuchevaya	Kl'učevoi	
Klyushina Gora	Kl'uššinvuara	Klyššinvaara
Kolatsel'ga	Kolatselgy	Kolatselkä
Kompakovo	Kompakka	Kompakka
Kondopoga	Kondupohju	Kontupohja
Kontokki	Kontokki	Kontokki
Kopayevo	Kopanova	
Korguba	Korbilakši	Korpilahti
Korelaksha	Kuorilakši	Kuorilahti
Korpisel'kya	Korbiselgä	Korpiselkä
Kostomuksha	Koštamuš	Kostamus
Kostretsy	Huabrikka	
Kotkozero	Kotkatjärvi, Kotkaď'ärvi	Kotkatjärvi
Koykary	Koikari	Koikari
Kudamguba	Kuudamolakši, Kuudamalakši	Kuutamalahti
Kundozero	Kunttikylä	Kuntikylä
Kurgiyevo	Kurki	Kurki
Kuytezha	Kuit'ťiine	Kuittinen
Kuznavolok	Kuužin'iemi	Kuusiniemi
Kyabeli	Käpäl'i	Käpäli
Ladvozero	Latvajärvi	Latvajärvi
Lakhta	Lahti, Lahtenkylä	Lahti
Lambisel'ga	Lamminselgy	Lamminselkä
Laydosalma	Laitašalmi	Laitasalmi

Lazarevo	Loozar'(i)	Laazari
Lendery	L'end'iera	Lentiera
Lezhevo	Ležol'a	Ležola
Lindozero	L'ind'ärvi	Lindjärvi
Lizhmozero	L'iižmär'v', L'ižmärv'(i)	Ližmajärvi
Lokhivaara	Lohivuara	Lohivaara
Lopatikha	Lopuat'iha	
Loukhi	Louhi	Louhi
Lubosalma	Lupasalmi	Lupasalmi
Lukhnovo	Čökkel'ie	
Luvozero	Luvarvi	Luvajärvi
Lytshnyy Ostrov	N'iin'isuar', Suarenkylä	Saari
Malaya Sel'ga	Pien'i Sel'gi, Herranselgy	Pieniselkä
Man'ga	Mangu	Manga
Mandera	Mander, Manderenkylä	Mandere
Markova Gora	Markkasenvuara	Markkasenvaara
Mashezero	Maasjärvi	Maasjärvi
Maslozero	Voijärvi	Voijärvi
Matrosy	Matrossu, Matrosankylä	Matrossa
Megrega	Mägriä, Mägrii, Mägriänhieru	Mägriä
Megrozero	Mägräd'd'ärvi, Mägrätjärvi	Mägrätjärvi
Mikhailovskoye	Kud'ärv	Kuujärvi
Moseyevskoye	Mois'ova	
Munozero	Mund'är'vi	Munjärvi
Myandusel'ga	Mändyselgä	Mäntyselkä
Namoyevo	Nuamoil(u)	Naamoila
Nekkulitsy	N'ekkul	Nekkula
Nikol'skoye	S'ola	
Nikulino	Mikul'n'a	
Nil'mozero	N'il'mijärvi, N'il'märvi	Nilmijärvi
Olanga	Oulanka	Oulanka
Ostrye Luki	Vostroi	
Oyazha	Ojaža, Ojain'e, Ojaiženkylä	Ojainen
Padany	Poodene, Poadane, Pooen, Poaen	Paatene
Palalakhta	Pallahti	Palalahti
Paloselga		Paloselkä

Panozero	Poan'arvi, Poan'ärvi, Puan'ärvi	Paanajärvi
Parfeyevo	Tyrhy	Tyrhy
Parkhovo	Parhova	
Pebozero	Piebjärvi	Piebjärvi
Peldozha	Peld(u)oine, Peld(u)oiženkylä	Peldoinen
Pertnavolok	Per'ť'n'iemi	Pertniemi
Petel'navolok	Petel'n'iemi	Petelniemi
Petryayevo	Petrjava	
Pil'dozero	Pil'žärvi	Pilsjärvi
Pirttiguba	Pirttilakši	Pirttilahti
Poduzhem'ye	Užmana	Usmana
Pogrankondushi	Rajakondu	Rajakontu
Polovina	Pošte, Poštankylä	Pošta
Pon'goguba	Ponkalakši	Ponkalahti
Porosozero	Porar'vi	Porajärvi
Potsep	Počpova	
Prudovo	Prudova	
Pryazha	Priäžy, Priäže	Prääžä
Pul'tsheyla	Pul'coilu	Pultšoi
Pyalozero	Päljärvi, Pälärv(i)	Päljärvi
Reboly	Rebol'a	Repola
Regozero	Röhö	Röhö
Rigoreka	Riihijoki	Riihijoki
Rugozero	Rugarvi	Rukajärvi
Ruva	Ruva	Ruva
Rypushkalitsy	Riipuškala	Riipuškala
Salmenitsa	Salmen'n'išku	Salmenniska
Salmi	Salmi	Salmi
Sarigora	Saarimägi	Saarimäki
Savinovo I	Hečču̯l	Hetšula
Savinovo II	Mal'l'al	Maljala
Sayezero	Suad'ärvi	Saajärvi
Sel'gi	Sel'l'inkylä	Selgi
Senozero	Hein(ä)järvi	Heinäjärvi
Shalgovaara	Šalgovoara	Salkovaara
Shchekkila	Šekkil	Štekki

Shuyezero	Šuigarvi	Suikujärvi
Sof'yanga	Sohjananšuu	Sohjanansuu
Sokolozero	Šoukelo	Soukelo
Sona	Suonu	Suona
Sondaly	Suandal(e)	Suondale
Sonostrov	Sonostrova	Suurisaari
Sopovarakka	Šuopašvuara	Suopasvaara
Sosnovaya Lamba	Hur'koilu	Hurkkoila
Sovdozero	Soud'ärvi	Šoutjärvi
Spasskaya Guba	Lahtenkylä, Mun'd'ärvenlahti	Munjärven Lahti
Spirovo	Tatarkina	
Suomussalmi		Suomussalmi
Suopasalma	Šuopaššalmi	Suopassalmi
Suoyarvi	Suojärvi	Suojärvi
Suystamo	Suistamo, Suistama	Suistamo
Svyatnavolok	Pyhän'iemi	Pyhäniemi
Svyatozero	Pyhär'vi	Pyhäjärvi
Syamozero	Siämärvi, Siämärvenpogostu	Säämäjärvi
Syapchezero	Säpsärvi	Säpsäjärvi
Syargozero	Särgärvi, Särgjärvi	Särkijärvi
Tikhtozero	Pistojärvi	Pistojärvi
Tikshezero	Šärkin'iemi, T'iikšjärvi	Särkiniemi
Tikshozero	T'iiksärvi, T'iiksi	Tiikšjärvi
Timoshkino	Timoškina	
Titnavolok	Rannankylä	Rannankylä
Tivdiya	Tiud'ii, Tiud'iänkylä	Tiudia
Tolmachi	Tolmačču	
Torosozero	Torasjärvi	Torasjärvi
Trestna	Tresna	
Tulivaara	Tuulivoara	Tuulivaara
Tulokhsa	Tuulos, Tuuloksenhieru	Tuulos
Tunguda	Tungud	Tunkua
Ukhta	Uhut	Uhtua
Ulyalega	Jogi, Jovenkylä	Joenkylä
Ushkovo	Uškela	Uškila
Ussuna	Sununsuu, Sunusuu, Sununsuunkylä	Sununsuu

Ust'ye	D'ogensuu	Ustje
Ust'ye Vidlitsy	(Videlen) D'ovensuu	Joensuu
Vagvozero	Vahjärvi, Vaharvi	Vahjärvi
Vartiolambi	Vartielampi	Vartielampi
Vasil'yevskoye	Vas'il'iskoi	
Vazhinskaya Pristan'	Siman'išto	Simaništo
Vedlozero	Vield'ärvi	Vieljärvi
Vengigora	Vengi, Venginvoara	Vengi
Verhneye Kumozero	Ylä-Kuusemajärvi	Kuusemajärvi
Verkhnyaya Vidlitsa	Ylägii	Ylägjä
Veshkelitsa	Veškelys	Veskelys
Vidany	Viidan, Viidanankylä	Viitana
Vidlitsa	Videl, Videlenhieru	Vitele
Vladimirskaya	Kondu	Kontu
Vokhtozero	Vuohtärvi, Vuohtjärvi	Vuohtjärvi
Voknavolok	Vuokkin'iemi	Vuokkiniemi
Volkhovitsy	Volhova	
Volkhovo	Volhova	
Voynitsa	Vuon'n'in'i, Vuon'n'inen	Vuonninen
Vychetaybola	Viččataipale	Vitsataipale
Yangozero	D'ängärvi	Jänkäjärvi
Yeletozero	Jeleť'ť'ijärvi	Jelettijärvi
Yemel'yanovka	Omel'ie	Omelie
Yevgora	Jouhivoara, D'ouhivoara	Jouhivaara
Yurgilitsa	Jyrgil	Jyrgilä
Yushkozero	Jyškärvi, D'yskärvi	Jyskyjärvi
Yustozero	D'uustärv'i	Juustjärvi
Zabolot'ye	Zuabloť't'a	

Appendix F. Thematic bibliography[180]

Grammars, dialect descriptions

Ahtia, E. V. Karjalan kielioppi, I oza, Äänne- ja sanaoppi. Suojärvi: Karjalan kansalaisseura. 1938 [Näköispainos Karjalan Kielen Seura, 2009]. Available at http://kaino.kotus.fi/digitointi/pdf/Ahtian_sana-_ja_aanneoppi.pdf.

Ahtia, E. V. Karjalan kielioppi: II, Johto-oppi. Toim. Penttonen M. Posthumously published manuscript. [Helsinki]: Karjalan Kielen Seura, 2014. Available at http://kaino.kotus.fi/digitointi/pdf/Ahtian_johto-oppi.pdf.

Ahtia, E. V. Karjalan kielioppi: 3, Lauseoppi. Toim. Penttonen, M. Posthumously published manuscript. [Helsinki]: Karjalan kielen seura. 2014. Available at http://kaino.kotus.fi/digitointi/pdf/Ahtian_lauseoppi.pdf. Available also as facsimile at http://kaino.kotus.fi/digitointi/pdf/Ahtia_Karjalan_kielen_lauseoppi.pdf

Anisimov, N. A. Karel'skoin kielen grammatika: nepolnoin srednein i srednein školan učebnikka. I Čuasti. Fonetika i morfologija. Petroskoi: Kargoizdat. 1939.

Anisimov, N. A. Grammatika karel'skogo jazyka (kotkozerskij govor). 1948. Manuscript. NA KarNC RAN. F. 1. Op. 43, Nro 107. Petrozavodsk.

Barantsev, A. P. Ljudikovskij dialekt karel'skogo jazyka (Fonetika i morfologija Svjatozeskogo areala). 1985. Manuscript. NA KarNC RAN. F. 1. Op. 6, Nro 164. Petrozavodsk.

Beljakov, A. A. Grammatika karel'skogo jazyka: Kalininskoe narečie sobstvenno-karel'skogo dialekta. 1948. Manuscript. NA KarNC RAN. F. 1. Op. 43, Nro 110. Petrozavodsk.

Bubrih, D. V. Grammatika karel'skogo jazyka: (fonetika i morfologija). Petrozavodsk: Karel'skij naučno-issledovatel'skij institut kul'tury. 1937.

Bubrih, D. V. Sopostavitel'naja grammatika russkogo, finskogo i karel'skogo jazykov. – TKF, 12. 1958, 3–24.

Genetz, A. Kertomus Suojärven pitäjäästä ja matkustuksistani siellä v. 1867. – Suomi, 8. Helsinki: SKS. 1870, 201–275.

Genetz, A. Wepsän pohjoiset etujoukot. – Ahlqvist, A. (ed.) Kieletär, 4, 3–32, Kieletär, 5, 3–26. Helsingissä: J. C. Frenckellin ja Pojan tykönä. 1872.

Genetz, A. Tutkimus Venäjän Karjalan kielestä: Kielennäytteitä, sanakirja ja kielioppi. [Suomi 2: 14]. Helsingissä: [SKS]. 1880.

Genetz, A. Tutkimus Aunuksen kielestä: Kielennäytteitä, sanakirja ja kielioppi. Suomi, 2: 17. Helsingissä: SKS. 1885, 1–194.

Hakulinen, L., Kalima, J. & Uotila, T. E. Itä-Karjalan murreopas: äänne- ja muoto-oppia, tekstejä, sanastoa. [Helsinki]: Otava. 1942.

Makarov, G. N. Karel'skij jazyk. – Jazyki narodov SSSR. T. 3. Finno-ugorskie i samodijskie jazyki. Moskva: Nauka. 1966, 61–80.

Manžin, K. V. Očerk ves'egonskogo govora sobstvenno-karel'skogo dialekta karel'skogo jazyka. 1964. Manuscript. NA KarNC RAN. F. 1. Op. 5, Nro 263. Petrozavodsk.

Markianova, L. F. Karjalan kielioppi: 5–9. Petroskoi: Periodika. 2002.

Ojansuu, H. Karjalan kielen opas: Kielennäytteitä, sanakirja ja äänneopillisia esimerkkejä. Helsingissä: SKS. 1907.

Palmeos, P. Karjala valdai murrak. Emakeele Seltsi Toimetised Nr. 5. Tallinn: Eesti NSV Teaduste Akadeemia. 1962.

Pyöli, R. Livvinkarjalan kielioppi. Helsinki: Karjalan Kielen Seura. 2011.

Rigoev, A. E. & Sergeev, M. E. Karel'skoin kielen grammatika: nepolnoin srednein i srednein školan učebnikka. II čuasti. Sintaksis. Petrozavodsk: Kargosizdat. 1939.

Rjagojev, V. D. Tihvinskij govor karel'skogo jazyka. Leningrad: Nauka. 1977.

[180] Compiled with the assistance of FM Susanna Tavi. Includes both published and unpublished sources.

Rjagojev, V. D. Očerki po livvikovskomu dialektu karel'skogo jazyka (fonetika i morfologija). 1987. Manuscript. NA KarNC RAN.F. 1. Op. 6, Nrot 304–305. Petrozavodsk.
Zaikov, P. Karjalan kielioppie I. Iänne- ta muoto-oppie: Study material. Petroskoi: Petroskoin valtionyliopisto. 1992.
Zaikov, P. Karjalan kielioppie II. Muoto-oppie: Study material. Petroskoi: Petroskoin valtionyliopisto. 1993.
Zaikov, P. M. Grammatika karel'skogo jazyka: Fonetika i morfologija. Petrozavodsk: Periodika. 1999.
Zaikov, P. Karjalan kielioppi: 5–9. Petroskoi: Periodika. 2002.
Zaikov, P. Vienankarjalan kielioppi: Lisänä harjotukšie ta lukemisto. Helsinki: Karjalan Sivistysseura ry. 2013.

Phonetics, phonology

Airila, M. r-äänne suomessa ja sukukielissä. – Virittäjä, 37. 1933, 461–472.
Airila, M. Die Diphthonge uo, üö, ie in der hauptbetonten Silbe im Finnischen und in den nächstverwandten Sprachen. – FUF, 27. 1941, 189–204.
Airila, M. Pitkä i pääpainottomassa tavussa itämerensuomalaisissa kielissä. – Virittäjä, 48. 1944, 144–162.
Airila, M. Pääpainollisen tavun uo, üö, ie kantasuomessa. – Virittäjä, 50. 1946, 293–300.
Airila, M. uo > u, üö > u, ie > i h:n edellä. – Virittäjä, 49. 1945, 203.
Anisimov, N. A. Konečnye glasnye i soglasnye v formah nominativa edinstvennogo čisla v karel'skom govore s. Kotkozera Oloneckogo rajona. – SFU, 5. Petrozavodsk. 1949, 99–122.
Anisimov, N. A. Fonetika sela Kotkozera. 1948. Manuscript. NA KarNC RAN F. 1. Op. 43, Nro 108. Petrozavodsk.
Barantsev, A. P. O fonologičeskom statuse palatalizovannyh kontoidov ljudikovskih govorov. – Tezisy doklada na Naučnoj konfrencii, posvjaššennoj itogam rabot instituta za 1963 g. Petrozavodsk. 1964, 3–5.
Barantsev, A. P. O strukture konsonantnyh grupp v ljudikovskom dialekte karel'skogo jazyka. – SFU, 2. 1966, 7–12.
Barantsev, A. P. Fonematika ljudikovskogo dialekta karel'skogo jazyka. – Pribaltijsko-finskoe jazykoznanie. Voprosy fonetiki, grammatiki i leksikologii. Leningrad: Nauka. 1967, 3–19.
Barantsev, A. P. Fonologičeskie sredstva ljudikovskoj reči. Deskriptivnoe opisanie. Leningrad: Nauka. 1975.
Barantsev, A. P. O livvikovskoj vokaličeskoj dejstvitel'nosti v konce XVIII veka. – XVII Vsesojuznaja finno-ugorskaja konferencija. Jazykoznanie. Tezisy dokladov 1. Ustinov. 1987. 39.
Barantsev, A. P. O proishoždenii ljudikovskih diftongov na -u v paradigme odnosložnyh slov. – Veenker, W. Viertes Internationales Symposion "Uralische Phoologie" 4.–8. September 1989 in Hamburg: Thesen zu den Vorträgen und Referaten. Hamburg: Finnisch-Ugrisches Seminar der Universität Hamburg. 1989, 15–19.
Beljakov, A. A. Rezul'taty vlijanija russkogo jazyka na karel'skuju fonetiku i leksiku. Manuscript. NA KarNC RAN. F. 15. Op. 1, Nro 20. s.a.
Beljakov, A.A. Fonetika karel'skogo dialekta s. Tolmači Kalininskoj obl. – SFU, 5. Petrozavodsk. 1949, 67–98.
Bergsland, K. Palataalinasaalin edustuksesta itämerensuomessa. – Fenno-Ugrica: Juhlakirja Lauri Postin kuusikymmenvuotispäiväksi 17.3.1968. SUST 145. Helsinki: SUS. 1968, 20–22.
Bubrih, D. V. K voprosu ob istoričeskoj posledovatel'nosti fonetičeskih sdvigov v livvikovskom narečii karel'skogo jazyka. – IKFBNIB AN SSSR, 1–2. 1947, 118–123.
Bubrih, D. V. Svistjaščie i šipjaščie soglasnye v karel'skih dialektah. – Učenye zapiski LGU, 2.

1947, 129–159.
Collinder, B. Kantasuomen s ~ h: kantalapin s ~ š toisen tavun vokaalin jäljessä. – Virittäjä, 32. 1928, 237–251.
Donner, K. Salmin murteen kvantiteettisuhteista. Helsinki: SKS. 1912.
Genetz, A. Versuch einer karelischen Lautlehre. [Helsingfors]: [Genetz]. 1877.
Genetz, A. Lautphysiologische Einführung in das Studium der vestfinnischen Sprachen mit besonderer Berücksichtigung des Karelischen. Helsingfors. 1877.
Gromova, L. G. Fonetičeskie osobennosti jazyka tverskogo pamjatnika karel'skoj pis'mennosti Evangelija ot Matfeja. – Csúcs, S. et al. (ed.) Congressus XI Internationalis Fenno-Ugristarum, Piliscsaba 2010: Pars VI. Dissertationes sectionum: Linguistica. Piliscsaba. 2011, 127–134.
Heikkilä, M. Itämerensuomen ehdollisesta äänteenmuutoksesta /ai/ > /ei/. – Virittäjä, 144. 2013, 583–592.
Holman, E. The diphthongization of Finnish long mid vowels as part of a homeostatic process. – Papers from the Conference on General Linguistics, Lammi 22.–23.6.1977. Turku: [Suomen kielitieteellinen yhdistys]. 1977, 1–15.
Holman, E. Allomorphic and dialectal cohesion in the light of Baltic-Finnic grade alternation. Helsinki: Helsingin yliopisto, yleisen kielitieteen laitos. 1975.
Hämäläinen, M. M. O razvitii glasnyh v konce slova v karel'skom i vepsskom jazykah. – TKF AN SSSR, 39. 1963, 12–22.
Itkonen, E. Onko kantasuomessa ollut keskivokaaleja? – Virittäjä, 49. 1942, 158–182, 298–299.
Itkonen, E. Varhaiskantasuomen pääpainottoman ai-diftongin kahtalaisen kehityksen syistä. – Virittäjä, 46. 1942, 117–125, 205–206.
Itkonen, E. Varhaiskantasuomen pääpainottoman ai-diftongin kehityksestä. – Virittäjä, 49. 1945, 603–611.
Itkonen, T. Proto-Finnic final consonants: their history in the Finnic languages with particular reference to the Finnish dialects. Introduction: the history of -k in Finnish. Dissertation. SUST 138:1. Helsinki: SUS. 1965.
Itkonen, T. Itäsuomalaisen liudennuksen fonologinen paradoksi. – Fenno-Ugrica: Juhlakirja Lauri Postin kuusikymmenvuotispäiväksi 17.3.1968. SUST 145. Helsinki: SUS. 1968, 76–116.
Itkonen, T. Zur Synchronie und Diachronie der ostfinnischen Palatalisation. – Studia Fennica, 14. 1969, 1–31.
Itkonen, T. Aunuksen äänneopin erikoispiirteet ja aunukselaismurteiden synty. – Virittäjä, 75. 1971, 153–185.
Itkonen, T. Die Stufenwechselverhältnisse des Olonetzischen und die Entstehung der olonetzischen Mundarten. – Ariste, P. et al. Congressus tertius internationalis Fenno-Ugristarum: Tallinnae habitus 17.–23.8.1970. 1, Acta linguistica. Tallinn: Valgus. 1975, 221–226.
Itkonen, T. Zur Geschichte der ts-Verbindungen in den westfinnischen Dialekten. – Leskinen, H. (ed.) Heutige Wege der finnischen Dialektologie. Studia Fennica 24. 1981, 11–28.
Itkonen, T. Erään vokaalivyyhden selvittelyä. – Virittäjä, 91. 1987, 164–208.
Itkonen, T. Lyydiläismurteiden triftongeista. – Palander M. et al. (ed.) Murteiden matkassa: Juhlakirja Alpo Räisäsen 60-vuotispäiväksi. Joensuu: Joensuun yliopiston humanistinen tiedekunta. 1995, 81–91.
Kalima, J. Karjala-aunuksen ja vepsän š-alkuisista sanoista. – Suomi, 5. 1930, 194–201.
Kalima, J. Aunuksen -rn- > -r-. – Virittäjä, 37. 1933, 459–461.
Kalima, J. Eräs lyydiläis-vepsäläinen äänneilmiö. – Virittäjä, 3. 1939, 377–381.
Kalima, J. Slaavilaisperäinen sanastomme: Tutkimus itämerensuomalaisten kielten slaavilaisista lainasanoista. Helsinki: SKS. 1952.
Kalima, J. Zur karelisch-olonetzischen Lautgeschichte. – FUF, 16. 1923, 163–176
Kettunen, L. Vokaalisoinnun iästä. – Esitelmät ja pöytäkirjat / Suomalainen tiedeakatemia.

Helsinki. 1921, 25.
Kettunen, L. Miten on selitettävä suomenkielen a~e, ä~e vaihtelu? – Virittäjä, 28. 1924, 57–70, 89–108.
Kettunen, L. Gab es Stufenwechsel im Urfinnischen? – Nyelvtudomanyi közlemenyek, 50. Budapest. 1936, 170–183.
Kettunen, L. Ovatko diftongit uo, üö, ie alkuperäisiä? – Virittäjä, 50. 1946, 19–28.
Kettunen, L. Eikö kantasuomessa ole ollut keskikielen vokaaleja? – Virittäjä, 52. 1948, 124–144.
Kettunen, L. Vielä vähän kantasuomen keskikielen vokaaleista. – Virittäjä, 52. 1948, 299–300.
Kettunen, L. Astevaihtelun salaisuus. – Virittäjä, 53. 1949, 69–75, 182–183.
Kujola, J. Äänneoppillinen tutkimus Salmin murteesta. Suomi 4: 10. Helsinki: SKS. 1910.
Kunnas, N. Miten muuttuu runokylien kieli: Reaaliaikatutkimus jälkitavujen A-loppuisten vokaalijonojen variaatiosta vienalaismurteissa. Dissertation. Oulu: Oulun yliopisto, suomen kielen, informaatiotutkimuksen ja logopedian laitos. 2007.
Laagus, A. Segmentaalsete foneemide distributsioon karjala keele Djorža murrakus. – Eesti keele ringi töid, 2. 1970, 168–190.
Laanest A. Einige Lautgeschichtliche Fragen des Ižorischen und Altkarelischen. – SFU, 6. 1970, 37–44.
Laanest, A. Itämerensuomalaisten kielten soinnillisten klusiilien fonologian kysymyksiä. – Ariste, P. et al. Congressus tertius internationalis Fenno-Ugristarum: Tallinnae habitus 17.–23.8.1970. 1, Acta linguistica. Tallinn: Valgus. 1975, 250–253.
Laanest, A. Über die Entwicklung der schwachen Stufe von k und t im Ižorischen und in nachverwandten Sprachen. – SFU, 12. 1976, 171–178.
Leppik, M. O. O nefonologičeskom haraktere čeredovanija stupenej v pribaltijsko-finskom prajazyke. – SFU, 4. 1968, 12.
Leskinen, E. Tulemajärven murteen vokalismi. Helsinki: SKS. 1933.
Leskinen, H. Luoteis-Laatokan murteiden äännehistoria. 1. Konsonantit. Helsinki: SKS. 1963.
Leskinen, H. Über die Phonemsysteme der karelischen Sprache. – Hajdú, P. & Honti, L. (ed.) Studien zur phonologischen Beschreibung uralischer Sprachen. Budapest: Akadémiai Kiadó. 1984, 247–257.
Leskinen, H. Vepsän, karjalan ja inkeroisen asemasta kolmen äännepiirteen valossa. – Itämerensuomalaiset kielikontaktit: Itämerensuomalainen symposium 7. kansainvälisessä fennougristikongressissa Debrecenissä 27.8–1.9.1990. Helsinki: Valtion painatuskeskus. 1990, 72–79.
Liljeblad, T. Tunkuan murteen konsonantismi: Käsiteltynä myöhäiskantasuomesta lähtien. Helsinki: SKS. 1931. [myös: Suomi 5: 13. Helsinki: SKS. 1932]
Makarov, G. N. Konečnye glasnye v govore s. Kotkozero livvikovskogo dialekta. – SFU, 5. 1949, 99–122.
Markianova, L. F. O morfofonologičeskih čeredovanijah glasnyh na morfemnom šve karel'skogo proizvodnogo glagola. – Fenno-Ugristica, 6. 1980. 67–78.
Markianova, L. F. Fonetika livvikovskogo dialekta: učebnoe posobie. Petrozavodsk: Iz-vo PetrGU. 1992.
Markianova, L. Livvin murdehen foneetiekku. Petroskoi: Petroskoin valtionyliopisto. 1992.
Markianova, L. F. Sočetaemost' soglasnyh v karel'skom jazyke. – Finno-ugristika, 4. Saransk: Krasnyj Oktjabr'. 2000, 127–133.
Markianova, L. F. & Suhanova, V. S. Morfofonologičeskaja adaptacija nekotoryh russkih zaimstvovanij v glagoloobrazovatel'noj sisteme karel'skogo jazyka. – Problemy russkofinnougors-kogo dvujazyčija i mež"jazykovyh kontaktov: mežvuz. temat. sbornik naučnyh trudov. Joškar-Ola. 1988, 38–42.
Moosberg, N. Om utvecklingen af samfinskt s i den ryskkarelska dialekten i Vuonninen. – Le Monde Orientale, 6. 1912, 19–26.
Mägiste, J. Kaksi itämerensuomalaisen äännehistorian kysymystä. – Virittäjä, 58. 1957, 141–

146.
Nahkola, K. Miksi astevaihtelu fonemaattistui? – Virittäjä, 99. 1995, 173–190.
Nilsson, T. K. Ein urfinnisches Nasalassimilationsgezetz. – LU, 31. 1995, 241–250.
Nirvi, R. E. Suistamon keskusmurteen vokalismi. Suomi 5: 13. Helsinki: SKS. 1932.
Nirvi, R. E. Eräs pohjoissavolainen diftongi-ilmiö. – Virittäjä, 55. 1951, 417–423.
Novak, I. P. Drevnekarel'skaja sistema čeredovanija stupenej soglasnyh. – Materialy XXXIX meždunarodnoj filologičeskoj konferencii. Sankt-Peterburg. 2010, 79–83.
Novak, I. P. Vepsskij substrat v sisteme čeredovanija soglasnyh karel'skogo jazyka. – Trudy KarNC RAN, Serija "Gumanitarnye issledovanija", 2. Petrozavodsk. 2011, 148–152.
Novak, I. P. Čeredovanie stupenej soglasnyh v livvikovskom narečii karel'skogo jazyka. – Bubrihovskie čtenija. Petrozavodsk. 2011, 92–100.
Novak, I. P. Čeredovanie stupenej soglasnyh v sobstvenno karel'skom narečii karel'skogo jazyka. – Učenye zapiski Petrozavodskogo gosudarstvennogo universiteta, Serija: Obščestvennye i gumanitarnye nauki, 1 (114) fevral'. Petrozavodsk: PetrGU. 2011, 53–57.
Novak, I. P. Čeredovanie stupenej soglasnyh kak morfofonologičeskoe javlenie (na materiale karel'skogo jazyka). – Materialy XL meždunarodnoj filologičeskoj konferencii. Sankt-Peterburg: Filologičeskij fakul'tet SPbGU. 2011, 57–60.
Novak, I. P. Formirovanie i funkcionirovanie čeredovanija stupenej soglasnyh v tverskih dialektah karel'skogo jazyka. – Tverskie karely: istorija, jazyk, kultura. Tver': TvGU. 2011, 137–145.
Novak, I. P. Rol' vepsskogo jazyka v stanovlenii karel'skoj al'ternacionnoj sistemy. – Vepsskie areal'nye issledovanija. Petrozavodsk: KarNC RAN. 2013, 166–174.
Novak, I. P. Stanovlenie al'ternacionnoj sistemy soglasnyh karel'skoj dialektnoj reči. Petrozavodsk: KarNC RAN. 2014.
Novak, I. P. Fonetičeskaja adaptacija russkih zaimstvovanij v tverskom narečii karel'skogo jazyka. – Vestnik tverskogo gosudarstvennogo universiteta: Filologija, 3. Tver': TvGU. 2015, 172–181.
Novak, I. P. Fonetičeskie markery pogranič̌nyh livvikovskih i ljudikovskih karel'skih govorov. – Lokal'nye issledovanija Južnoj Karelii: opyt kompleksnogo analiza. Petrozavodsk: KarNC RAN. 2015, 143–189.
Novak, I. P. Tverskie dialekty karel'skogo jazyka: Fonetika. Fonologija. Petrozavodsk: KarNC RAN. 2016.
Oinas, F. l' > j venäjän murteissa. – Virittäjä, 64. 1960, 389–392.
Ojansuu, H. Karjalan äänneoppi. Helsinki: SKS. 1905.
Ojansuu, H. Pieniä lisiä astevaihteluoppiin. – Virittäjä, 9. 1905, 54–55.
Ojansuu, H. Savolaismurteiden äänteellisten erikoisuuksien iästä. – Suomalaisen tiedeakatemian esitelmät ja pyötäkirjat 1910. I. Helsinki. 1910, 98–105.
Ojansuu, H. Karjala-Aunuksen äännehistoria. Helsinki: SKS. 1918.
Ojansuu, H. Pieni lisäys "Karjalan Äänneoppiin". – Virittäjä, 27. 1923, 10–12.
Pahomov, M. Muinaisvepsän tytärkielten historiallista äänneoppia: Kuujärven lyydiläismurteen klusiilit astevaihtelusuhteineen. 2000. Manuscript.
Palmeos, P. Über den Vokalismus der Zubcover Mundart des Karelischen. – SFU, 2. 1966, 1–5.
Palmeos, P. Mõningaist astmevahelduskü̈simustest karjala keele Djorža murrakus. – FennoUgrica: Juhlakirja Lauri Postin kuusikymmenvuotispäiväksi 17.3.1968. SUST 145. Helsinki: SUS. 1968, 178–182.
Palmeos, P. Astmevaheldus karjala Djorža murrakus. – ESA, 19–20. 1973–1974 (1975), 227–235.
Palmeos, P. Über die satzphonetischen Veränderungen in der Djorža-Mundart des Karelischen. – Ariste, P. et al. Congressus tertius internationalis Fenno-Ugristarum: Tallinnae habitus 17.–23.8.1970. 1, Acta linguistica. Tallinn: Valgus. 1975, 319–321.
Palomäki, U. Aina vain astevaihtelun arvoituksesta. – Kallio, P. et al. Kiinnostuksesta kieleen, 13. Åbo: Åbo Akademi. 2001, 144–158.

Peltola, R. Karjalan kiea ja eräs pohjoisisovenäjän murteiden äänneominaisuus. – Virittäjä, 62. 1958, 274–281.
Penttilä, A. Suomen ja sen lähempien sukukielten painotusoppia. Kielipsykologinen tutkimuskoe. Dissertation. Turku: Tekijä. 1926.
Pikamäe, A. Čeredovanie stupenej soglasnyh v osnove slova v pribaltijsko-finskih i saamskom jazykah. Avtoreferat dissertacii na soiskanie učenoj stepeni kandidata filologičeskih nauk. Tartu. 1956.
Posti, L. Kantasuomen äännehistorian kysymyksiä. – Virittäjä, 51. 1947, 248–253, 337.
Posti, L. Remarks on the treatment of Proto-Finnic s in Karelian and Veps. – Commentationes Fenno-Ugricae in honorem Y. H. Toivonen. SUST 98. Helsinki. 1950, [385] –391.
Posti, L. Suomen murteiden äännehistorian kysymyksiä. – Virittäjä, 55. 1951, 407–416.
Posti, L. From Pre-Finnic to late Proto-Finnic. – FUF, 31. 1953, 1–91.
Posti, L. Kantasuomen äännehistorian luentojen pääkohdat. Helsinki. 1966. Moniste.
Ravila, P. Eräitä varhaiskantasuomalaisia analogiatapauksia. – Virittäjä, 43. 1939, 107–112, 308.
Ravila, P. Astevaihtelun arvoitus. – Virittäjä, 55. 1951, 309.
Saukkonen, P. Zur Geschichte des ostseefinnischen ö. – Ariste, P. et al. Congressus tertius internationalis Fenno-Ugristarum: Tallinnae habitus 17.–23.8.1970. 1, Acta linguistica. Tallinn:
Valgus. 1975, 357–361.
Setälä, E. N. Yhteissuomalaisten klusiilien historia: Luku Yhteissuomalaisesta äännehistoriasta.
Helsinki: SKS. 1890.
Setälä, E. N. Yhteissuomalainen äännehistoria: 1 vihko, Klusiilit. Helsinki: SKS. 1891.
Setälä, E. N. Über Quantitätswechsel im Finnisch-Ugrischen: Vorläuftige Mitteilung. Helsingfors: [kustantaja tuntematon]. 1896.
Setälä, E. N. Zu dem Alter des Stufenwechsels. – FUF, 11. 1911, 14–15.
Setälä, E. N. Über Art, Umfang und Alter des Stufenwechsels im Finnisch-ugrischen und Samojedischen. – FUF, 12. 1912, 1–128.
Smirnova-Bubrih, D. V. Osnovnaja linija razvitija dolgih glasnyh pervogo sloga v karel'skom jazyke. – IKFBNIB AN SSSR, 4. 1948, 84–87.
Steinitz, W. Geschichte des finnisch-ugrischen Vokalismus. 2., mit einem Anhang und Wortregister erweiterte Auflage. Berlin: Akademie-Verlag. [1944] 1964.
Suhonen, S. Fragen der Phonotaktik der ostseefinnischen Sprachen. – Ariste. P. et al. Congressus tertius internationalis Fenno-Ugristarum: Tallinnae habitus 17.–23.8.1970. 1, Acta linguistica. Tallinn: Valgus. 1975, 374–378.
Suomi, K. Itämerensuomen vokaaliharmoniasta, neutraaleista vokaaleista ja keskivokaaleista. – Virittäjä, 87. 1983, 508–518.
Suova, E. Lyydiläismurteiden loppu-h: stä. – Virittäjä, 39. 1935, 461–470.
Toivonen, Y. H. Zur Geschichte der finnisch-ugrischen inlautenden Affrikaten. – FUF, 19. 1928, 1–270.
Toivonen, Y. H. Myöhäsyntyisistä affrikaatoista itämerensuomalaisissa kielissä. – Virittäjä, 34. 1930, 91–98.
Toivonen, Y. H. Kantasuomen *tts ~ ts, *ts ~ s. – Virittäjä, 36. 1932, 145–150.
Toivonen, Y. H. Zur Hypothese über einen Lautwandel h < j in den ostseefinnischen Sprachen. – Ural-altaische Jahrbücher, 24. 1952, 42–50.
Tunkelo, E. A. Erään n: n katoamisesta. – Virittäjä, 29. 1925, 136–140.
Tunkelo, E. A. Puheäänellisen ja puheäänettömän loppukonsonantin vaihtelusta lyydiläismurteissa ja vepsässä. – Virittäjä, 29. 1925, 8–26.
Tunkelo, E. A. "Majakkatulta kohti". – Virittäjä, 42. 1938, 509–510.
Tunkelo, E. A. Pääpainottoman lyhyen ja pitkän i: n vaihtelusta itämerensuomalaisissa kielissä. [Suomi 5: 20, 2]. Helsinki: SKS. 1938.
Tunkelo, E. A. Jatkoa keskusteluun pääpainottomasta pitkästä i:stä. – Virittäjä, 47. 1943, 99–108, 131–132.

Tunkelo, E. A. h: n ja i: n tai j: n vaihtelusta lyydiläisten murteissa ja viron kielessä. – Virittäjä, 50. 1946, 247–255.

Tunkelo, E. A. Inkeroismurteiston asemasta. Suomen kielen ja karjalan murteita silmällä pitäen äännehistorian kannalta tarkastellut. Helsinki: SKS. 1952.

Turunen, A. Lyydiläismurteiden äännehistoria I. Konsonantit. SUST 89. Helsinki: SUS. 1946.

Turunen, A. Itäisten savolaismurteiden äännehistoria. SKST 253. Helsinki: SKS. 1959.

Turunen, A. Lyydiläismurteiden äännehistoria II. Vokaalit. SUST 99. Helsinki: SUS. 1950.

Virtaranta, P. Eteläkarjalaisten murteiden s. – Suomi, 104. Helsinki: SKS. 1947, 1–39.

Virtaranta, P. Über das s im Karelischen. – Hadju P. & Honti L. Studien zur phonologischen Beschreibung uralischen Sprachen. Biblioteca Uralica 7. Budapest: Akademiai Kiado. 1984, 259–274.

Wichman, Y. Zur Geschichte der finnisch-ugrischen anlautenden Affrikaten, bes. im Ungarischen und im Finnischen. – FUF, 11. 1911, 173–289.

Wiik, K. Itämerensuomalaisten kielten allomorfian runsauden syistä eli tavujen voimakkuudesta itämerensuomessa. – Sananmuodostuksen ongelmia: seminaari Selissä 3.–4.9.1981. Suomen kielitieteellisen yhdistyksen julkaisuja, 7. Turku: Suomen kielitieteellinen yhdistys. 1982, 35–47.

Wiik, K. Itämerensuomen välivokaalien diftongiutumisen syistä. – Kielitieteellisiä lastuja, 2. Lastut 11–20. Turku: Suomen kielitieteellinen yhdistys. 1982, 39–43.

Wiik, K. Kuinka kantasuomen äänteenmuutos e-i tapahtui. – Kielitieteellisiä lastuja, 2. Lastut 11–20. Turku: Suomen kielitieteellinen yhdistys. 1982, 28–33.

Wiik, K. Olivatko myöhäiskantasuomen lyhyet geminaatat lyhytalkuisia vai lyhytloppuisia? – Kielitieteellisiä lastuja, 2. Lastut 11–20. Turku: Suomen kielitieteellinen yhdistys. 1982, 34–38.

Wiik, K. Miksei munoja vaikka kanoja?: kantasuomen toisen tavun a+i-diftongin a:n kahtalaisen kehittymisen pohdiskelua. Turun yliopiston suomalaisen ja yleisen kielitieteen laitoksen julkaisuja 20. Turku: Turun yliopisto. 1984.

Zaikov, P. M. Fonetičeskie i morfologičeskie osobennosti dialektov karel'skogo jazyka. – Materialy meždunarodnoj naučno-metodičeskoj konferencii prepodavatelej i aspirantov, posvjaščennoj 75-letiju kafedry finno-ugorskoj filologii SPbGU: 16–17 марта 2000 г. SanktPeterburg: Izdat-vo SPbGU. 2000, 45–54.

Zaikov, P. s ja š distribuutio raja-karjalaismurteissa. – XL Kielitieteen päivät 2013. Tampere. 2013, 52.

Zaikov, P. M. Distribucija i fonologičeskij status /s/ i /š/ v dialektah karel'skogo jazyka. – Finnougorskie jazyki i kultury v sociokul'turnom landšafte Rossii: materialy V Vserossijskoj konferencii finno-ugrovedov. Petrozavodsk, 25–28 ijunja 2014 g. Petrozavodsk: KarNC RAN. 2014, 11–13.

Zaitseva, N. G. Oppozicija geminirovannyh i negeminirovannyh affiksov v dialektah karel'skogo jazyka. – Pribaltijsko-finskoe jazykoznanie: Sbornik statej, posvjaščennyh 80-letiju G. M. Kerta. Petrozavodsk: KarNC RAN. 2003, 106–111.

Zlobina, V. E. Fonetika oloneckogo govora karel'skogo jazyka. Avtoreferat dissertacii na soiskanie učenoj stepeni kandidata filologičeskih nauk. Petrozavodsk. 1948. Manuscript.

Zlobina, V. Osobennosti v čeredovanii stupenej soglasnyh v livvikovskom dialekte. – Tezizy dokladov na III naučnoj sessii Karelo-Fin. gos. un-ta. 19–22 nojabrja 1948 g. Nro 18 Petrozavodsk. 1948.

Zlobina, V. O nekotoryh zvukovyh izmenenijah v odnom iz govorov karel'skogo jazyka. – SFU, 3. 1967, 97–99.

Õispuu, J. Zur Synkope und Apokope in Verbparadigma der Djorža-Mundart des Karelischen. – SFU, 21. 1985, 171–181.

Õispuu, J. Die Apokope und die Deklination des Nomens in der Djorža-Mundart des Karelischen. – SFU, 24. 1988, 9–12.

Morphology

Adeľ, E. L. Uslovnoe naklonenie v kareľskom jazyke. – Pribaltijsko-finskoe jazykoznanie. Petrozavodsk. 1994, 27–40.

Adeľ, E. L. Sistema glagol'nogo slovoizmenenija padanskogo govora kareľskogo jazyka. Avtoreferat dissertacii na soiskanie učenoj stepeni kandidata filologičeskih nauk. Moskva. 1995.

Adeľ, E. L. Glagol'noe slovoizmenenie v kareľskom jazyke. Petrozavodsk. 1998.

Agranat, T. B. O zalogovyh protivopostavlenijah v pribaltijsko-finskih jazykah. – Materialy meždunarodnoj naučno-metodičeskoj konferencii prepodavatelej i aspirantov, posvjaščennoj 75-letiju kafedry finno-ugorskoj filologii SPbGU: 16–17 marta 2000 g. Sankt-Peterburg: Izd-vo SPbGU. 2000, 55–60.

Agranat, T. B. Sravniteľnyj analiz grammatičeskih sistem pribaltijsko-finskih jazykov: principy intragenetičeskoj tipoligii. Manuscript. Rukopis'dissertacii na soiskanie učenoj stepeni doktora filologičeskih nauk. Moskva. 2009.

Alvre, P. Mitmuse genitiivi vormide arengust karjala keeles. – ESA, 12. 1966, 125–147.

Alvre, P. On the Baltic–Fennic Dative (with special reference to the Liv language). – SFU, 3. 1967, 171–181.

Alvre, P. Läänemeresoome eδa-, eδä-adjektiividest. – Fenno-Ugrica: Juhlakirja Lauri Postin kuusikymmenvuotispäiväksi 17.3.1968. SUST 145. Helsinki: SUS. 1968, 7–11.

Alvre, P. Läänemeresoome *δě, *δe – noomenite tüvedest. – ESA, 14–15. 1968–1969, 151–170.

Alvre, P. Läänemeresoome keelte mitmusetüvedest. – TÜT, 344. 1975, 17–29.

Alvre, P. Ühesilbiliste noomenite mitmusetüvedest soome keeles. – ESA, 22. 1976, 127–142.

Alvre, P. Zu einigen ostseefinnischen Postpositionen. – SFU, 17. 1981, 87–90.

Alvre, P. Zur Struktur det ostseefinnischen Pronomen. – SFU, 21. 1985, 157–165.

Alvre, P. Über die Herkunft der ostseefinnischen Adjektive mit -lanta, -läntä. – SFU, 17. 1985, 241–246.

Alvre, P. Ein eigentümliches Adverb in den ostseefinnischen Sprachen. – LU, 28. 1992, 81–88.

Alvre, P. Ostseefinnische Tempusadverbien auf -se, – si. – LU, 34. 1998, 353–360.

Alvre, P. Exzessiv und Pseudoexzessiv in den ostseefinnischen Sprachen (besonders im Estnischen). – LU, 37. 2001, 1–9.

Alvre, P. Russische Lehnelemente in Indefinitpronomen und -adverbien der ostseefinnischen. – LU, 48. 2002, 161–164.

Ariste, P. Sisekohakäänete kujunemisest läänemere keeltes. – Eesti NSV Teaduste Akadeemia toimetised: Ühiskonnateadused, 1. 1954, 41–48.

Ariste, P. Über terminativische Konstruktionen in den ostseefinnischen Sprachen unter bezonderer Berücksichtigung des Estnischen. – LU, 30. 1994, 248–253.

Audova, I. Die ostseefinnischen Deverbativa auf *-pa/-pä und *-ja/-jä in der Funktion des adjektivischen Attributs. – LU, 39. 2003, 1–19.

Barantsev, A. P. O nekotoryh osobennostjah sistemy glagola ljudikovskogo dialekta kareľskogo jazyka. – Sbornik naučnyh rabot studentov Petrozavod. gosudarstvennogo universiteta. 6. Petrozavodsk. 1962, 55–56.

Barantsev, A. P. K probleme poslelożnyh padežej v kareľskom jazyke. – Ariste P. et al. Congressus tertius internationalis Fenno-Ugristarum: Tallinnae habitus 17.–23.8.1970. 1, Acta linguistica. Tallinn: Valgus. 1975, 200–203.

Beljakov, A. A. Kategorija čisla v kareľskom partitive. – UZLGU, 2. 1948, 160–164.

Beljakov, A. A. O kareľskih ličnyh mestoimenijah 1 i 2 lica. – IKFNIB AN SSSR, 2. 1948, 89–95.

Beljakov, A. A. Morfologičeskaja sistema sobstvenno-kareľskogo dialekta (kalininskoe narečie). – TKF, 1. 1954, 78–79.

Beljakov, A. A. Upotreblenie form partitiva v kareľskih dialektah. – IKKF, 5. 1958, 143–147.

Beljakov, A. A. Padežnye pokazateli partitiva v kalininskih govorah kareľskogo jazyka. –

Vsesojuznoe soveščanie po voprosam finno-ugorskoj filologii. Petrozavodsk. 1961, 38–40.

Beljakov, A. A. Okončanija partitiva v karel'skom jazyke karel Kalininskoj oblasti. – Voprosy finno-ugorskogo jazykoznanija. Grammatika i leksikologija. Moskva-Leningrad: Nauka. 1964, 89–95.

Beljakov, A. A. Leksičeskaja osnova karel'skogo glagola (sobstvenno-karel'skij dialekt). – Tezisy dokladov i soobščenij na Vsesojuznoj konferencii po finno-ugrovedeniju. Ijun', 1965. Syktyvkar. 1965, 16–19.

Bogdanov, N. I. K voprosu o vozvratnyh formah glagola v dialekte Mihajlovskogo sel'skogo soveta Oloneckogo rajona Karelo-Finskoj SSR. – IKFNIB AN SSSR, 1–2. 1947, 132–134.

Bogdanova, E.V.Verbien refleksiivitaivutuksesta karjalan murteissa. – Õdagumeresoomõ veeremaaq = Läänemeresoome perifeeriad. Võro Instituudi Toimõtiseq, 6. Võru. 1999, 224–229.

Bogdanova, E. V. Vozvratnoe sprjaženie v dialektah karel'skogo jazyka. Manuscript. Rukopis' dissertacii na soiskanie učenoj stepeni kandidata filologičeskih nauk. Petrozavodsk. 2003.

Bussenius, A. Zur ostseefinnischen Morphologie. Stammesalternation im Ostseefinnischen Ungarische Bibliothek, 24. Berlin: Walter de Gruyter. 1939.

Bubrih, D. V. Proishoždenie s-ovyh vnutrenne-mestnyh padežej v zapadnyh gruppirovkah finno-ugorskih jazykov. – UZKFGU, 1. 1946, 27–45.

Bubrih, D. V. Finskie imena -inen (-ise) i ih svjazi v drugih finno-ugorskih jazykah. – Tezisy dokladov na Naučnoj konferencii po voprosam finno-ugorskoj filologii, 23 janv.–4 fev. 1947 g. Leningrad: Izd-vo LGU. 1947, 30–31.

Bubrih, D. V. Proishoždenie imen na -inen s osnovoj na -ise v pribaltijsko-finskih jazykah. – SFU, 5. 1949, 4–32. Danilov, V. Obščie funkcii inessiva v mordovskih i pribaltijsko-finskih jazykah. – SFU, 9. 1973, 185–194.

Danilov, V. Èlativ i ego funkcii v mordovskih i pribaltijsko-finskih jazykah. – TÜT, 344. 1975, 72–89.

Dubrovina, Z. M. Ob obrazovanii vtoričnyh padežej iz poslelożnyh konstrukcij v pribaltijskofinskih jazykah. – Vestnik LGU, 14. 1956, 69–86. Evseev, V. Ja. K voprosu o slovoobrazujuščih suffiksah v imenah geroev karel'skih run. – Voprosy finno-ugrovedenija, 5. Joškar-Ola. 1970, 197–203.

Fedotova, V. P. Očerk sintaksisa karel'skogo jazyka. Petrozavodsk. 1990.

Genetz, A. Lautphysiologische Einführung in das Studium der vestfinnischen Sprachen mit besonderer Berücksichtigung des Karelischen. Helsingfors: J. C. Frenckell & Son. 1877.

Giloeva, N. M. Karjalan kielen indefiniittisten pronominien muodostuminen. – Õdagumeresoomõ ütistüseq = Läänemeresoome ühendusteed. Võro Instituudi Toimõtiseq, 11. Võru. 2001, 38–46.

Giloeva, N. M. Voprositel'nye, neopredelennye i obobščitel'no-opredelitel'nye mestoimenija v dialektah karel'skogo jazyka. Manuscript. Rukopis' dissertacii na soiskanie učenoj stepeni kandidata filologičeskih nauk. Petrozavodsk. 2004.

Holvoet, A. Impersonals and passives in Baltic and Finnic. – Dahl, Ö. & Koptjevskaja-Tamm, M. (ed.) Circum-Baltic languages. Volume 2: Grammar and typology. Studies in Language Companion Series 55. Amsterdam: John Benjamins. 2001, 363–389.

Hämäläinen, M. M. Vnutrenne-mestnye i vnešne-mestnye padeži v karel'skom jazyke. – Tezisy dokladov na Naučnoj sessii, posvjaščennoj povedeniju itogov naučno-issledovatel'skih rabot filiala za 1953–1954 gg. Petrozavodsk. 1955.

Hämäläinen, M. M. Ob aggljutinatah v vepsskom jazyke i v južnokarel'skih govorah karel'skogo jazyka. – TKA AN SSSR, 12. 1958, 83–94.

Hämäläinen, M. M. O razvitii vnutrennemestnyh padežej v severo-vostočnoj gruppe pribaltijsko-finskih jazykov. – TKF, 23. 1960, 84–109.

Hämäläinen, M. M. O razvitii vnutrennemestnyh padežej v severo-vostočnoj gruppe

pribaltijsko-finskih jazykov. – Pribaltijsko-finskoe jazykoznanie. Moskva-Leningrad. 1961, 84–109.

Hämäläinen, M. M. Vnešne-mestnye padeži v severo-vostočnoj gruppe pribaltijsko-finskih jazykov. – Voprosy finno-ugorskogo jazykoznanija: K 70-letiju so dnja roždenija členakorrespondenta AN SSSR D. V. Bubriha. Moskva-Leningrad. 1962, 109–126.

Ikola, O. Perfektin ja pluskvamperfektin synnystä. – Virittäjä, 64. 1960, 364–367.

Itkonen, E. Gibt es im Ostseefinnischen Spuren einen Duals? – Studia Fennica, 9. Helsinki. 1961, 1–20.

Itkonen, E. Onko itämerensuomessa jälkiä duaalista? – Virittäjä, 59. 1955, 161–175.

Itkonen, E. Zur Frühgeschichte der lappischen und finnischen Lokalkasus. – Kahla, M. & Räisänen, A. Congressus secundus internationalis Fenno-ugristarum Helsingiae habitus 23.–28.8.1965: Pars 1, Acta linguistica. Helsinki: Societas Fenno-Ugrica. 1968, 202–211.

Kalinova, Ja. V. Vzaimodejstvie russkih i pribaltijsko-finskih predikativnyh stradateľnyh pričastij po dannyh ètih govorov. – Filologičeskie nauki, 6. 1999, 93–101.

Kangasmaa-Minn, E. Adverbaalisesta genetiivistä. – Sananjalka, 8. Turku: Suomen kielen seura. 1966, 39–63.

Kangasmaa-Minn, E. Genitiv und Lativ, Adjektiv und Plural. – FUF, 40. 1973, 74–87.

Karelson, R. Sojuzy v pribaltijsko-finskih jazykah. Avtoreferat dissertacii na soiskanie učenoj stepeni kandidata filologičeskih nauk. Tartu. 1959.

Karelson, R. Pronoomenitüvedest ko- ja ku-pärineved sidesõnad läänemeresoome keeltes. – ESA, 5. 1959, 151–189.

Karelson, R. Pronoomenitüvest se- tulenevad sidesõnad läänemeresoome keeltes. – ESA, 7. 1961, 122–141.

Karelson, R. Nekotorye problemy predloga i posleloga v pribaltijsko-finskih jazykah. – SFU, 8. 1972, 16–18.

Karelson, R. O razvitii pribaltijsko-finskih sojuzov ot glagola so značeniem otricanija. – SFU, 8, 1972, 93–94.

Karelson, R. O nekotoryh problemah narečja i predloga-posleloga v pribaltijsko-finskih jazykah. – Voprosy finno-ugrovedenija. Jazykoznanie. Časť 1. Syktyvkar. 1979, 48–49.

Karelson, R. Der Anteil des Verneinungsverbs an der Entstehung der Konjunktionen in den ostseefinnischen Sprachen. – SFU, 15. 1979, 65–70.

Kehayov, P. & Torn-Leesik, R. Modal verbs in Balto-Finnic. – Haan, F. d. & Hansen, B. (ed.) Modals in the languages of Europe. A reference work. Empirical Approaches to Language Typology 44. Berlin: Mouton de Gruyter. 2009, 363–401.

Kert, G. M. & Markianova, L. F. Obščie slovoobrazovateľnye modeli glagola v karelʼskom i saamskih jazykah. – K istorii malyh narodnostej Evropejskogo Severa SSSR. Petrozavodsk: Karelʼskij filial AN SSSR. 1979, 103–110.

Kettunen, L. Mikä on alkuperäisin ollut kin partikkelin loppukonsonantti? – Virittäjä, 11. 1907, 133–140.

Kettunen, L. Passiivin tunnuksesta. – Virittäjä, 19. 1915, 107–112.

Kettunen, L. Der Abessiv auf -tta / -ttä in Finnischen. – FUF, 29. 1946, 109–110.

Kettunen, L. -uus vai -us? – Virittäjä, 51. 1947, 188–192.

Kettunen, L. Die Herkunft des Terminativs, Genitivs, Instruktivs und Komitativs. Annales Academiae scientiarum Fennicae, Series B. Helsinki: Suomalainen tiedeakatemia. 1956.

Kettunen, L. Suomen postpositsionista kera, keralla ’kanssa’. – Virittäjä, 26. 1922, 104–105.

Kiparsky, V. Nominativus cum infinitivo ims:ssa ja indo-eur. kielissä. – Virittäjä, 50. 1946, 456–460.

Koivisto, V. Itämerensuomen refleksiiviverbien semantiikkaa: Karjalan ja suomen itämurteiden refleksiivitaivutus. Licentiate thesis. Helsinki: Helsingin yliopisto. 1989.

Koivisto, V. Itämerensuomen refleksiivitaivutuksen ja mediaalitaivutuksen suhteesta – Virittäjä, 93. 1989, 102–110.

Koivisto, V. Lyydin ze-refleksiivijohdosten synnyn ongelma. – Virittäjä, 97. 1993, 187–202.

Koivisto, V. Itämerensuomen refleksiivit. Dissertation. SKST 622. Helsinki: SKS. 1995.
Koivisto, V. The essive in Karelian. – Groot, C. d. (ed.) Uralic essive and the expression of impermanent state. Amsterdam; Philadelphia: John Benjamins Publishing Company. 2017, 161–184.
Kok, M. Varjon kieliopillistuminen: Itse-sanan paradigman rakenne ja merkityksenkehitys itäisessä itämerensuomessa. Dissertation. Joensuu: University of Eastern Finland. 2016.
Kont, K. Translatiivist läänemeresoome keeltes ja mordva ning lapi keeles. – ESA, 1. 1955, 162–170.
Kont, K. Ob"ekt v pribaltijsko-finskih jazykah (padežnye formy). Avtoreferat dissertacii na soiskanie učenoj stepeni kandidata filologičeskih nauk. Tallinn. 1959.
Koponen, E. Eräiden itämerensuomen johdinten esihistoria. – Virittäjä, 102. 1998, 413–416.
Korhonen, M. Zur Geschichte den negativen Präteritums und Perfekts im Ostseefinnischen und im Lappischen. – Commentationes fenno-ugricae: In honorem Erkki Itkonen: sexagenarii die XXVI mensis aprilis anno MCMLXXIII. SUST, 150. Helsinki: SUS. 1973, 174–184.
Kovaleva, S. V. & Rodionova, A. P. Formirovanie norm karel'skogo jazyka na materiale leksiki i grammatiki. – Izvestija Samarskogo naučnogo centra Rossijskoj akademii nauk, 2. Samara. 2008, 242–251.
Kovaleva, S. V. & Rodionova, A. P. Tradicionnoe i novoe v leksike i grammatike karel'skogo jazyka. Petrozavodsk: KarNC RAN. 2011.
Kovaleva, S. V. & Rodionova, A. P. Tradicija i novacija v leksičeskom i grammatičeskom stroe karel'skogo jazyka. – Vestnik Permskogo universiteta. Rossijskaja i zarubežnaja filologija, 1. Perm'. 2012, 17–25.
Kreinin, V.-R. Post- ja prepositsioonid ning adverbid karjala keeles (kaliinini murdes). Master's thesis. Tartu. 1969.
Kross, K. Die Grenze zwischen dem Kasus und dem Adverb im Instruktiv der ostseefinnischen Sprachen. – SFU, 19. 1983, 241–253.
Kukk, T. Zu Adverbialsuffixen der Tichviner Mundart des Karelischen. – SFU, 19. 1983, 10–15.
Kukk, T. Slovoobrazovanie narečij v karel'skom jazyke. Avtoreferat dissertacii na soiskanie učenoj strepeni kandidata filologičeskih nauk. Finno-ugorskie jazyki. Manuscript. Tartu. 1987.
Laakso, J. Translatiivinen verbinjohdin NE itämerensuomalaisissa kielissä. Dissertation. SUST, 204. Helsinki: SUS. 1990.
Laalo, K. Imperfektimuotojen ti~si vaihtelu suomen murteissa. Dissertation. SKST 483. Helsinki: SKS. 1988.
Laanest, A. Partitiivi abil väljendatud substantiivsest atribuudist läänemeresoome keeltes. – ESA, 4. 1958, 214–232.
Laanest, A. Über ostseefinnische Nomina auf -k. – LU, 27. 1991, 233–240.
Larjavaara, M. Itämerensuomen demonstratiivit I. Karjala, aunus ja vepsä. Dissertation. SKST 433. [Helsinki]: SKS. 1986.
Larjavaara, M. Itämerensuomen koillisryhmän synkretistiset paikallissijat. – Virittäjä, 90. 1986, 413–427.
Larjavaara, M. Karjalan kielen partitiiviobjekti. – Virittäjä, 94. 1990, 419–437.
Larjavaara, M. Prolatiivi ennen ja nyt. – Virittäjä, 99. 1995, 609–616.
Lazar, O. The formation of abstract nouns in the Uralic languages. Diss. Univ. of Uppsala. Stockholm: Almqvist and Wiksell. 1975.
Lehtinen, T. Itämerensuomen verbien historiallista johto-oppia: suomen avajaa, karkajaa -tyyppiset verbit ja niiden vastineet lähisukukielissä. Dissertation. SUST, 169. Helsinki: SUS. 1979.
Lehtinen, T. Karjalan supistumaverbien imperfektityypit: tyyppien ikäsuhteista erityisesti vienalaismurteiden valossa. – Virittäjä, 86. 1982, 1–21.
Lehtinen, T. Eräiden paradigmatyyppien taustaa. – Virittäjä, 88. 1984, 17–46.

Lehtinen, T. Itämerensuomen passiivin alkuperästä. Suomi, 129. Helsinki: SKS. 1984.
Lehtinen, T. Venäjän verbisemantiikkaa itämerensuomessa: karjalan ja vepsän inkoatiiviverbit. – Sananjalka 27. Turku: Suomen kielen seura. 1985, 63–84.
Leino, P. Havaintoja suomen ja karjala-aunuksen IV infinitiivistä. – Kalevalaseuran vuosikirja, 45. Porvoo-Helsinki: WSOY. 1965, 241–264.
Leppik, E. Pealiikmete asendist karjala keele valdai murde lauses. – ESA, 7. 1961, 175–192.
Leppik, E. Subjektist karjala keele valdai murrakus. – ESA, 8. 1962, 171–183.
Leppik, E. Eitavast predikaadist Karjala Valdai murrakus. – ESA, 10. 1964, 183–186.
Leppik, E. Preesensi ja imperfekti suhteist Karjala Valdai murraku koond- ja liitlauseist. – ESA, 12. 1966, 149–155.
Leskinen, H. Passiivin käytöstä monikon 3. persoonan funktiossa. – Itkonen, T. et al. Verba docent: Juhlakirja Lauri Hakulisen 60-vuotispäiväksi 6.10.1959. SKST, 263. Helsinki: SKS. 1959, 327–329.
Leskinen, H. Die Konstruktionstypus anna ~ laske + finite Verbform in den osfi. Sprachen und im Lappischen. SUSA, 67. Helsinki: SUS. 1966.
Leskinen, H. Eräs aunuksen imperatiivimuodoste. – Virittäjä, 71. 1967, 256–258.
Leskinen, H. Imperatiivin muodostus itämerensuomalaisissa kielissä: 2, Karjala-aunus. [Helsinki]: [kustantaja tuntematon]. 1967.
Leskinen, H. Spuren des analütischen Imperativs im Finnischen. – Kahla, M. & Räisänen, A. Congressus secundus internationalis Fenno-ugristarum Helsingiae habitus 23.–28.8.1965: Pars 1, Acta linguistica. Helsinki: Societas Fenno-Ugrica. 1968, 304–312.
Leskinen, H. Imperatiivin muodostus itämerensuomalaisissa kielissä: 1. Suomi. Helsinki: SKS. 1970.
Leskinen, H. Zur Imperativsystem in den ostseefinnischen Sprachen. – Ariste, P. et al. Congressus tertius internationalis Fenno-Ugristarum: Tallinnae habitus 17.–23.8.1970. 1, Acta linguistica. Tallinn: Valgus. 1975, 275–280.
Leskinen, H. Kalevalaiset optatiivimme. – Virittäjä, 76. 1972, 398–408.
Majtinskaja, K. E. Istoriko-sopostavitel'naja morfologija finno-ugorskih jazykov. Moskva: Nauka. 1979.
Majtinskaja, K. E. Služebnye slova v finno-ugorskih jazykah. Moskva: Nauka. 1982.
Mark, J. Die Possessivsuffixe in den uralischen Sprachen: 1. Hälfte. Dissertation. Helsingfors: Finnisch-Ugrische Gesellschaft. 1923.
Makarov, G. N. Složnye slova sočinitel'nogo tipa v karel'skom jazyke. – Tezisy dokladov i soobščenij na Vsesojuznoj konferencii po voprosam finno-ugorskogo jazykoznanija. Sent. – okt. 1963 g. Užgorod. 1963, 8–10.
Makarov, G. N. O grammatičeskih priznakah složnogo slova v karel'skom jazyke. – SFU, 1. 1965, 71–78.
Markianova, L. F. O nekotoryh slovoobrazoval'tenyh modeljah karel'skogo jazyka. – Voprosy finno-ugrovedenija. Jazykoznanie. Časť 1. Syktyvkar. 1979, 10–11.
Markianova, L. F. O sootnošenii ljudikovskih i sobstvenno-karel'skih èlementov v nekotoryh glagol'nyh slovoobrazovatel'nyh suffiksah livvikovskogo narečija karel'skogo jazyka. – Karhu, E. G. et al. Itämerensuomalaisen filologian symposiumi –79: Esitelmien tiivistelmät = Simpozium –79 po pribaltijsko-finskoj filologii: tezisy dokladov. Petrozavodsk: Akademija nauk SSSR. Karel'skij filial. 1979, 106–109.
Markianova, L. F. O porjadke raspoloženija i sočetaemosti slovoobrazujuščih suffiksov v proizvodnom karel'skom glagole. – SFU, 15. 1979, 26–32.
Markianova, L. F. Suffiksal'noe glagol'noe slovoobrazovanie v karel'skom jazyke. Avtoreferat dissertacii na soiskanie učenoj stepeni kandidata filologičeskih nauk Tartu: [ilman kustantajaa]. 1980.
Markianova, L. F. Ob usečenii proizvodnoj osnovy karel'skogo proizvodnogo glagola. – SFU, 18. 1982, 161–163.
Markianova, L. F. Glagol'noe slovoobrazovanie v karel'skom jazyke. Petrozavodsk: Karelija.

1985.
Markianova, L. F. Frekventativnye suffiksy v karel'skom jazyke. – Pribaltijsko-finskoe jazykoznanie. Voprosy leksikologii i grammatiki: sbornik statej. Petrozavodsk. 1988, 91–100.
Markianova, L. F. O nekotoryh tipologičeskih osobennostjah glagoloobrazovanija v pribaltijsko-finskih jazykah severnoj gruppy. – Voprosy finno-ugorskoj filologii, 5. Leningrad: Izd-vo LGU. 1990, 119–128.
Markianova, L. F. O vlijanii russkogo jazyka na sintaksis i semantiku padežej livvikovskogo dialekta karel'skogo jazyka. – Pribaltijsko-finskoe jazykoznanie. Sbornik statej. Petrozavodsk: KarNC RAN. 1991, 29–32.
Markianova, L. F. Otymennye glagoly v karel'skom jazyke. – Pribaltijsko-finskoe jazykoznanie. Sbornik statej. Petrozavodsk: KarNC RAN. 1991, 76–82.
Markianova, L. F. Morfologija livvikovskogo dialekta. Imena i služebnye slova. Petrozavodsk: Izd-vo PetrGU. 1993.
Markianova, L. Livvin murdehen morfolougii. Nominat da abusanat. Opastusmoniste. Petroskoi: Petroskoin valdivonüliopisto. 1993.
Markianova, L. Livvin murdehen morfolougii. Nominat da abusanat. Opastusmoniste. Petroskoi: Izd-vo PetrGU. 1993.
Markianova, L. F. Morfologija livvikovskogo dialekta. Glagol. Narečie. Učebnoe posobie. Petrozavodsk: Izd-vo PetrGU. 1995.
Markianova, L. Livvin murdehen morfolougii. Verbit. Adverbit. Opastusmoniste. Petroskoi: Izd-vo PetrGU. 1995.
Markianova, L. F. O morfofonologičeskih čeredovanijah v slovoizmenitel'noj sisteme karel'skogo jazyka. – Voprosy finno-ugorskoj filologii. Sankt-Peterburg: Izd-vo SPbGU. 1997, 11–18.
Must, G. Der Äquativ in den ostseefinnischen Sprachen. – SUSA, 57. 1953, 1–6.
Mäetamm, K. Noomenite tuletussufiksid karjala keele Djorža murrakus. Master's thesis. Tartu. 1968.
Mägiste, J. Paari verbiformansi lainamisest karj.-aunuse ja vepsa keeles. – Eesti keel, 5–6. 1925, 112–119.
Mägiste, J. oi-johtimisia reduplikatiivisia vahvikesanojako? – Virittäjä, 31. 1927, 95–99.
Mägiste, J. oi-, ei-deminutiivid länemeresoome keelis: läänemeresoome nominaaltuletus. I = Die oi, ei-deminutiva der Ostseefinnischen Sprachen. I. Acta et Commentationes Universitatis Tartuensis (Dorpatensis: B, 1 (12 [2]). Tartu: [Tartu Ülikool]. 1928.
Mägiste, J. Zum karel.-lüd-weps. Gerandium auf -hu-, -hü-. – SUSA, 72. Juhlakirja Aulis J. Joen kuusikymmenvuotispäiväksi 2.6.1973. Helsinki: SUS. 1973, 234–238.
Nazarova, A. Yksi- ja kaksitavuisten nominien vartalotyypit karjalan kielen aunuksen murteessa. – Fenno-ugristica. Tartu Ülikooli toimetised, 902. Tartu: Tartu Ülikool. 1990, 135–146.
Nazarova, A. K voprose o prolative v karel'skom jazyke: (livvikovskij dialekt). – Fennougristica. Tartu Ülikooli toimetised, 902. Tartu: Tartu Ülikool. 1990, 129–134.
Nazarova, A. Noomenite mitmus karjala keele aunuse murdes. – Fenno-ugristica. Tartu Ülikooli toimetised, 938. Tartu: Tartu Ülikool. 1992, 76–81.
Neetar, H. Ühest partitiivi funktsioonist karjala valdai murdes. – ESA, 5. 1959, 251–252.
Nirvi, R. E. Passiivimuotojen aktiivistumisesta. Suomi, 104. Helsinki: SKS. 1947.
Norvik, M. Future time reference in the Finnic languages: LEE (NE)- verbs. – SUSA, 94.
Helsinki: SUS. 2013, 125–164. Available at https://www.sgr.fi/susa/94/SUSA94.pdf.
Novak, I. P. Al'ternacija soglasnyh v sisteme imennogo slovoizmenenija karel'skogo jazyka. – Vestnik MGOY. Serija "Lingvistika", 4. Moskva. 2011, 53–58.
Novak, I. P. Slučaj affiksal'nogo pleonazma v karel'skom jazyke (po rezul'tatam issledovanija imennoj slovoizmenitel'noj sistemy tverskih karel'skih dialektov). – Finno-ugorskaja mozaika. Petrozavodsk. 2016, 153–160.

Novak, I. P. & Egorova, A. A. Sistema poslelożnyh padežej v periferijnyh dialektah karel'skogo jazyka. – Bubrihovskie čtenija: Gumanitarnye nauki na Evropejskom Severe. Petrozavodsk. 2015, 267–272. Available at http://resources.krc.karelia.ru/illh/doc/knigi_stati/bubrih_cht_2015.pdf.

Oinas, F. J. The development of some postpositional cases in Balto-Finnic languages. SUST 123. Helsinki: SKS. 1961.

Ojajärvi, A. Partitiivista ja sen käyttöalan laajentumisesta. – Virittäjä, 54. 1950, 236–242.

Ojajärvi, A. Sijojen merkitystehtävistä Itä-Karjalan Maaselän murteissa: Nominatiivi, genetiivi, akkusatiivi ja partitiivi: vertaileva funktio-opillinen tutkimus. Dissertation. SUST XCVII. Helsinki: SUS. 1950.

Ojanen, M. Adjektiivikategoria venäläis-lyydiläisissä kontakteissa: Lingvistinen interferenssitutkimus. Dissertation. SUST, 188. Helsinki: SUS. 1985.

Ojansuu, H. Lisiä persoonapronominien taivutusoppiin. – Virittäjä, 14. 1910, 30–38.

Ojansuu, H. Karitiivisen -ton (-toin) -ttoma- johtimen liittyminen monikkovartaloon. – Virittäjä, 25. 1921, 71–73.

Ojansuu, H. Itämerensuomalaisten kielten pronominioppia. Turun suomalaisen yliopiston julkaisuja, Sarja B 1, 3. Turku: [Turun yliopisto]. 1922.

Palmeos, P. Hilistekkinud käänded karjala Djorža murrakus. – SUSA, 72. Juhlakirja Aulis J. Joen kuusikymmenvuotispäiväksi 2.6.1973. Helsinki: SUS. 1973, 276–284.

Palmeos, P. Karjala valdai murraku -kko- -kkö- ja -kkois- -kköis- imperatiivist. – ESA, 8. 1962, 184–185.

Palmeos, P. Kaassõnad karjala Djorža murrakus. – TÜT, 397. 1976, 64–84.

Pal'meos, P. Predlogi i poslelogi v d'ěržanskom govore. – Finno-ugristika, 3. Saransk. 1976, 154.

Palmeos, P. Denominaalsed noomenisufiksid karjala Djorza murrakus. – ESA, 25. 1979, 5–24.

Palmeos, P. Inessiiv karjala Djorza murrakus. – Fenno-ugristica, 6. Tartu. 1980, 85–93.

Palmeos, P. Elatiiv karjala Djorza murrakus. – Fenno-ugristica, 7. Tartu. 1980, 49–62.

Pal'meos, P. Suffiks -nik v pribaltijsko-finskih jazykah. – SFU, 8. 1982, 1–7.

Palmeos, P. Denominaalsed verbisufiksid karjala keele Djorža murrakus. – FennoUgristica, 14. 1987, 87–99.

Posti, L. Eräs itämerensuomalainen genetiivimuodostus. – Virittäjä, 41. 1937, 282–293, 377–378.

Posti, L. Itämerensuomalaisten kielten passiivin tunnusten suhteesta. – Virittäjä, 49. 1945, 355–368, 502–503.

Posti, L. Itämerensuomalaisen verbitaivutuksen kysymyksiä. – Virittäjä, 65. 1961, 351–360.

Posti, L. Fragen der ostseefinnischen Verbalflexion. – Ortutay Gy. (red.) Congressus internationalis Fenno-Ugristarum, Budapestini habitus, 20–24. IX. 1960. Budapest: Akadémiai Kiadó. 1963, 216–225.

Posti, L. Fragen der ostseefinnischen Verbalflexion. – Ariste, P. et al. Congressus tertius internationalis Fenno-Ugristarum: Tallinnae habitus 17.–23.8.1970. 1, Acta linguistica. Tallinn: Valgus. 1975, 327–334.

Posti, L. The Origin and Development of the Reflexive Conjugation in the Finnic Languages. – Congressus quintus internationalis Fenno-Ugristarum. Turku 20.–27.VIII.1980.

Pars 1, Sessiones plenares. Turku: Suomen Kielen Seura. 1980, 111–144. Prii, R. Allatiiv-adessiiv seoses posti- ja prepositsi-oonidega karjala keeles. – ESA, 10. 1964, 187–190.

Pukki, H. Ims. *-kko ja *-kkas. – Virittäjä, 49. 1945, 554–566, 634.

Pulkkinen, P. Supistumaverbien imperfektityypit karjala-aunuksessa. Suomi, 113: 2. Helsinki: SKS. 1968.

Punttila, M. Absoluuttisen superlatiivisuuden ilmaiseminen karjalan kielessä. – Materialy VI Meždunarodnogo kongressa finno-ugrovedov. 2. Moskva: Nauka. 1990. 381–385.

Punžina, A. V. K upotrebleniju pokazatelej množestvennogo čisla v kalininskih govorah karel'skogo jazyka. – Voprosy sovetskogo finno-ugrovedenija. Jazykoznanie. Tezisy

dokladov. Saransk. 1972, 125–126.
Punžina, A. V. Imennye kategorii v kalininskih govorah karel'skogo jazyka. Manuscript.
Rukopis' dissertacii na soiskanie učenoj stepeni kandidata filologičeskih nauk. Petrozavodsk. 1975.
Punžina, A. V. K upotrebleniju pokazatelej množestvennogo čisla v kalininskih govorah karel'skogo jazyka. – Voprosy finno-ugrovedenija, 6. Saransk. 1975, 161–166.
Punžina, A. V. Partitiv v karel'skom jazyke (na materiale kalininskh govorov). – SFU, 12. 1976. 21–27.
Põldma, M. Verbi finiitsed vormid karjala keele Djorža murrakus. Master's thesis. Tartu. 1967.
Rapola, M. "Vaksen pituus". – Virittäjä, 49. 1945, 369–374, 503.
Rjagojev, V. D. Prolativnye obrazovanija na -čči, -či. – Pribaltijsko-finskoe jazykoznanie. Petrozavodsk: KarNC RAN. 1994, 19–27.
Rjagojev, V. D. Slovoobrazujuščie i formoobrazujuščie časticy v karel'skom jazyke. – Pribaltijsko-finskoe jazykoznanie. Voprosy fonetiki, grammatiki i leksikologii. Leningrad: Nauka. 1967, 59–63.
Rodionova, A. P. Posleložnye padeži v novopis'mennom karel'skom jazyke (livvikovskoe narečie). – Bubrihovskie čtenija: Problemy issledovanija i prepodavanija pribaltijsko-finskoj filologii. Petrozavodsk. 2005, 249–253.
Rodionova, A. P. Pribaltijsko-finskie poslelogi na karel'sko-livvikovskoj počve. – Meždunarodnye vzaimodejstvija v poliètničeskom prostranstve pograničnogo regiona: Sbornik materialov meždunarodnoj naučnoj konferencii. Petrozavodsk. 2005, 404–407.
Rodionova, A. Livvin postpositiosijoista. – Haurinen, O. & Sulkala, H. Tutkielmia vähemmistökielistä Jäämereltä Liivinrantaan: Vähemmistökielten tutkimus- ja koulutusverkoston raportti. 5. Oulu: Oulun yliopisto. 2006, 27–30.
Rodionova, A. P. Prostranstvo i vremja v morfosintaksičeskih konstrukcijah karel'skogo jazyka. – Materialy XXXIX Meždunarodnoj filologičeskoj konferencii 15–20 marta 2010 g. "Uralistika". Sankt-Peterburg: Filologičeskij fakul'tet SPbGU. 2010, 83–88.
Rodionova, A. P. Semantika poslelogov i posleložnyh konstrukcij v tekstah tradicionnyh karel'skih èpičeskih pesen.– "Kalevala" v konstekste regional'noj i mirovoj kul'tury. Materialy meždunarodnoj naučnoj konferencii, posvjaščennoj 160-letiju izdanija "Kalevaly". Petrozavodsk: KarNC RAN. 2010, 384–390.
Rodionova, A. Tila ja paikka karjalan kielen kieliopissa. – Ruum, kotus ja kotussõnimed. Ruum, koht ja kohanimed. Space, place and place names. Võro Instituudi toimõndusõq 25. Võru. 2011, 108–117.
Rodionova, A. P. Antropomorfnaja semantika lokal'nyh posleložnyh konstrukcij. – Materialy XV meždunarodnoj filologičeskoj konferencii. Uralistika. 14–19 marta 2011 g. Sankt-Peterburg. 2011, 78–83.
Rodionova, A. P. Semantika vremeni: grammatičeskij aspekt. – Bubrihovskie čtenija: voprosy istoričeskogo razvitija i sovremennogo sostojanija jazykov i kul'tur pribaltijsko-finskih narodov. Petrozavodsk. 2011, 132–142.
Rodionova, A. P. Semantika pričiny v grammatike karel'skogo jazyka. – Materialy XLI Meždunarodnoj filologičeskoj konferencii. 26–31 marta 2012 g. Sekcija "Uralistika". SanktPeterburg: Filologičeskij fakul'tet SPbGU. 2012, 68–74.
Rodionova, A. P. Morfologičeskie markery dialektnoj reči govorov Južnoj Karelii. – Lokal'nye issledovanija Južnoj Karelii: opyt kompleksnogo analiza. Petrozavodsk. 2015, 190–204.
Rodionova, A. P. Semantika karel'skoj grammatiki. Petrozavodsk: KarNC RAN. 2015.
Rodionova, A. P. O nekotoryh osobennostjah ljudikovskogo glagola. – Tverskie karely: 400 let na zemle. Doklady Meždunarodnoj naučno-praktičeskoj konferencii (Lihoslav', 18–19 maja 2017 goda). Tver': TvGU. 2017, 106–113.
Rodionova, A. P. O nekotoryh osobennostjah imennogo slovoizmenenija v karel'sko-ljudikovskij dialektnoj reči. – Vestnik ugrovedenija, 8. 2018, 284–293.
Rohlin, A. S. Vozvratnye formy glagolov v karel'skom jazyke. Avtoreferat dissertacii na

soiskanie učenoj stepeni kandidata filologičeskih nauk. Leningrad, 1941. Manuscript.
Ruoppila, V. Suhteen adverbiaalista itämerensuomalaisissa kielissä. – Virittäjä, 49. 1945, 55–126.
Ruoppila, V. Die Formen des Genitiv II Pluralis in Alten Kalevala. – FUF, 1–3. 1974, 185–193.
Ruppel, K. Zu den ostseefinnischen Lokalkasussystemen. – Finnisch-Ugrische Mitteilungen, 10. Hamburg: Buske. 1986, 347–352.
Rätsep, H. Läänemeresoome keelte t-lise infinitiivi päritoluga seoses olevaid probleeme. – ESA, 1. 1955, 153–162.
Sarhimaa, A. Infinitiivirakenne nesessiivisyyden ilmaisukeinona karjala-aunuksessa. – Virittäjä, 96. 1992, 323–348
Saukkonen, P. Itämerensuomalaisten kielten tulosijainfinitiivirakenteiden historiaa. I. Johdanto. Adverbaali infinitiivi. Dissertation. SUST, 137. Helsinki: SUS. 1965.
Saukkonen, P. Itämerensuomalaisten kielten tulosijainfinitiivirakenteiden historiaa II. Adverbaali infinitiivi (täydennys). Adnominaali infinitiivi. Absoluutti infinitiivi. Elliptinen infinitiivi. SUST 137. Helsinki: SUS. 1966.
Savijärvi, I. Itämerensuomalaisten kielten kieltoverbi: 1, Suomi. Dissertation. SKST, 333. Helsinki: SKS. 1977.
Savijärvi, I. Fakultatiivisten kieltoainesten ja kieltoverbin ellipsin suhteesta itämerensuomalaisissa kielissä. – Virittäjä, 88. 1978, 145–159.
Savijärvi, I. Passiivin ja monikkomuotojen suhteesta itäisissä ims. kielissä. – Jakab L. Congressus septimus internationalis Fenno-Ugristarum, Debrecen 27.VIII.–2.IX.1990: 3 B, Sessiones sectionum dissertationes: linguistica. Debrecen: [Kossuth Lajos Tudományegyetem]. 1990, 222–227.
Savijärvi, I. Venäjän partikkeli ni karjalassa ja vepsässä. – Palander M. (ed.) Agricolasta Inkeriin. Juhlakirja Ilkka Savijärven 60-vuotispäiväksi. Studia Carelica Humanistica 17. Joensuu: Joensuun yliopiston humanistinen tiedekunta. 2001 [1986]. 79–111.
Setälä, E. N. Suomen passiivista. – Virittäjä, 20. 1916, 57–65.
Suhanova, V. S. K semantike pritjažatel'nyh suffiksov v pribaltijsko-finskih i permskih jazykah. – UZPGU, 7. 1957, 285–292.
Suhonen, S. Lähisukukielten muoto-oppia ja lainasuhteita. Castrenianumin toimitteita, 9. Helsinki: SUS. 1974.
Suoniemi-Taipale, I. Itämerensuomalaisten kielten prolatiivi. Dissertation. SKST, 616.
Helsinki: SKS. 1994.
Särkkä, T. Itämerensuomalaisten kielten eksessiivi. Dissertation. SKST, 291. Helsinki: SKS. 1969.
Särkkä, T. Yleisten paikallissijojen lokaalin ja temporaalin käytön kehityksestä itämerensuomalaisissa kielissä. – Virittäjä, 74. 1970, 1–11.
Sõmmer, A. Väliskohakäänete tähendusfunktsioonid karjala keele kaliinini murdes. Tartu. 1968.
Tamme, T. Sisekohakäänete tähendusfunktsioonid karjala keele kaliinini murdes. Master's thesis. Tartu. 1967.
Tarasov, V. P. Upotreblenie pričastij nezakončennogo dejstvija v karel'skom jazyke. – TKF, 39. 1963, 65–69.
Tunkelo, E. A. Alkusuomen genitiivi absoluuttisen nimen apuglossana: Semologinen tutkimuskoe. SKST 120, osa 2. Helsinki: SKS. 1919–1920.
Tunkelo, E. A. Alkusuomen genitiivin funktsiosta: Semologinen tutkimuskoe. 1:2, Alkusuomen genitiivi absoluuttisen nimen apuglossana. SKST, 120. Helsinki: SKS. 1919.
Tunkelo, E. A. Lyydiläismurteiden refleksiivinen verbintunnus -ze-. – Virittäjä, 28. 1924, 27–33.
Tunkelo, E. A. Eräistä suomen, karjala-aunuksen ja vepsän refleksiivitunnuksista. – SUST, 52. 1924, 352–386.
Tunkelo, E. A. Nomineista, joissa johtimena on -hinen. – Virittäjä, 34. 1930, 370–392.

Tunkelo, E. A. Eräs kuollut denominaalijohdin. – Virittäjä, 36. 1932, 389–396; Virittäjä, 37. 1933, 9–37.
Tunkelo, E. A. Eräistä vepsän, lyydiläismurteiden y.m. pronominaaleista y.m. – Virittäjä, 39. 1935, 60–73.
Tunkelo, E. A. Lisähavaintoja t-loppuisesta passiivin II partisiipista. – Virittäjä, 42. 1938, 451–454.
Tunkelo, E. A. Lisiä suomen ja karjalan II partisiipin historiaan. – Virittäjä, 43. 1939, 165–184.
Tunkelo, E. A. Vienalaismurteiden aktiivin II partisiipin tunnuksesta: Lisiä suomen ja karjalan II partisiipin historiaan. 2. Helsinki: [kustantaja tuntematon]. 1939.
Tunkelo, E. A. Über einen urfinnischen Trennungskasus auf tta ~ ttä. – FUF, 24. 1937, 1–28.
Tunkelo, E. A. Über die Trennungskasus in den ostseefinnischen Sprachen. – Ariste, P. et al. Congressus tertius internationalis Fenno-Ugristarum: Tallinnae habitus 17.–23.8.1970. 1, Acta linguistica. Tallinn: Valgus. 1975, 379–385.
Tuomi, T. Itämurteiden loi-monikosta ja eräistä sekundaareista monikon merkeistä. – Suni H. (ed.) Laatokan piiri: Juhlakirja Heikki Leskisen 60-vuotispäiväksi 10.10.1990. Kotuksen julkaisuja 60. Helsinki: VAPK-kustannus. 1990, 190–200.
Turunen, A. Vepsän ja lyydin karitiiviadjektiivit ja niiden analogiset muotoryhmänvaihdokset. – Virittäjä, 64. 1960, 320–326.
Turunen, A. Der Nominativ Singular bei den Bezeichnungen der Zahlwörter mit zehn in den wepsischen, lüdischen und olonetzischen Dialekten. – Commentationes fenno-ugricae in honorem Paavo Ravila. SUST, 125. Helsinki: SUS. 1962, 599–610.
Turunen, A. Konsonanttivartaloisuus vepsän ja lyydin III infinitiivin muodoissa. – Virittäjä, 70. 1966, 54–63.
Turunen, A. Vepsän, lyydin ja karjalan hämärtyneitä yhdyssanoja. – Fenno-Ugrica: Juhlakirja Lauri Postin kuusikymmenvuotispäiväksi 17.3.1968. SUST 145. Helsinki: SUS. 1968, 225–233.
Turunen, A. Die abgeleiteten verbena auf -oitta im Wepsischen und Lüdischen. – FUF, 1–3. 1973, 225–239.
Turunen, A. Vepsän ja lyydin verbinjohtimet -ganden – -gänden ja -škanden – -škänden. – SUST, 150. 1973, 433–452.
Turunen, A. Vepsän ja lyydin verbinjohtimet -ganden [kongruenssi] ~ -gänden ja -škanden [kongruenssi] ~ -škänden. Opuscula Instituti linguae Fennicae, Universitas Helsingiensis, 29. Helsinki: Helsingin yliopisto. 1973.
Turunen, A. Vepsän, lyydin ja karjalan du- dü- ja zu- zü- johtimiset intransitiiviverbit. – Juhlakirja Aulis J. Joen kuusikymmenvuotispäiväksi 2.6.1973. SUSA, 72. Helsinki: SUS. 1973, 452–459.
Turunen, A. Über die Trennungskasus in den ostseefinnischen Sprachen. – Ariste, P. et al. Congressus tertius internationalis Fenno-Ugristarum: Tallinnae habitus 17.–23.8.1970. 1, Acta linguistica. Tallinn: Valgus. 1975, 30–31.
Turunen, A. Sprachliche Relikte der nach Binnenrussland übergesiedelten Karelier im jetzigen Finnisch-Karelien. – Materialy VI Meždunarodnogo kongressa finno-ugrovedov. 2. Moskva: Nauka. 1990, 442–447.
Uotila, T. E. Itämerensuomen -ri johdin. – Virittäjä, 46. 1942, 277–284, 347.
Uusitupa, M. Rajakarjalaismurteiden avoimet persoonaviittaukset. Dissertation. Joensuu:
University of Eastern Finland. 2017.
Vijtso, T.-R. O nekotoryh pribaltijsko-finskih fonologičeskih pravilah i prafinno-ugorskih imennyh *e-osnovah. – SFU, 9. 1973, 91–97.
Virtaranta, P. *maδen ¯ -tyyppinen mon. genetiivi. – Virittäjä, 55. 1951, 394–406, 517–518.
Virtaranta, P. Eräästä karjalais-vepsäläisestä kollektiivijohtimesta. – Itkonen, T. et al. Verba docent: Juhlakirja Lauri Hakulisen 60-vuotispäiväksi 6.10.1959. SKST, 263. Helsinki: SKS. 1959, 403–422.
Virtaranta, P. Über die Partikeln auf -li in den ostseefi. Sprachen. – Commentationes

fennougricae in honorem Paavo Ravila. SUST, 125. Helsinki: SUS. 1962, 625–669.
Virtaranta, P. Haljärven lyydiläismurteen muoto-oppia. SUST, 190. Helsinki: SUS. 1986.
Zaikov, P. M. Leksičeskaja osnova glagola v severnokarel'skih govorah. – Pribaltijskofinskoe jazykoznanie. Voprosy leksikologii i grammatiki: sbornik statej. Petrozavodsk: Karel'skij filial AN SSSR. 1988, 110–122.
Zaikov, P. M. Grammatičeskaja osnova glagola v severnokarel'skih govorah. – Pribaltijskofinskoe jazykoznanie: Sbornik statej. Petrozavodsk. 1994, 4–19.
Zaikov, P. Onko karjalassa passiivia? – Õdagumeresoomõveeremaaq = Läänemeresoome perifeeriad. Võro Instituudi Toimõtiseq, 6. Võru. 1999, 243–248.
Zaikov, P. M. Morfofonologičeskie čeredovanija glasnyh v sisteme slovoizmenenija karel'skogo jazyka (na materiale severno-karel'skih govorov). – Pribaltijsko-finskoe jazykoznanie. Sbornik statej. Petrozavodsk: KarNC RAN. 1991, 3–11.
Zaikov, P. M. Glagol'noe slovoizmeneie v karel'skom jazyke. Avtoreferat dissertacii na soiskanie učenoj stepeni doktora filologičeskih nauk. Petrozavodsk. 1997.
Zaikov, P. M. Glagol v karel'skom jazyka: (grammatičeskie kategorii lica-čisla, vremeni i naklonenija). Petrozavodsk: Izd-vo PetrGU. 2000.
Zaikov, P. Geminaatallisten ja ei geminaatallisten tunnusten distribuutio karjalan murteissa. – Karjalainen, M. et al. Merkityksen ongelmasta vähemmistökielten oikeuksiin: Juhlakirja professori Helena Sulkalan 60-vuotispäivänä. Oulu: Oulun yliopisto. 2007, 261–272.
Zlobina, V. E. Russko-karel'skie jazykovye kontakty i izmenenija v grammatičeskoj strukture imen v odnom iz govorov karel'skogo jazyka. – Vsesojuznaja konferencija po finno-ugorskomu jazykoznaniju: Tezisy k dokladam i nekotorye doklady, Iževsk: Udmurtija. 1967, 9–10.
Zlobina, V. E. Jazykovye kontakty i izmenenija v grammatičeskoj strukture jazykov. – Pribaltijsko-finskoe jazykoznanie: Voprosy vzaimodejstvija pribaltijsko-finskih jazykov s inosistemnymi jazykami. Leningrad: Nauka. 1971, 33–37.
Õispuu, J. Glagoly russkogo proishoždenija i formy ih infinitiva I v tihvinskom govore karel'skogo jazyka. – SFU, 16. 1980, 167–173.
Õispuu, J. Zum morphologischen Hintergrund der karelischen Imperativform l'äk'k' ö ~ l'äk'k'ä ~ l'äk'k' e ~ l'äk'k'i. – SFU, 18. 1982, 164–167.
Õispuu, J. Der Konditional in den Sprachinseln des eigentlichkarelischen Dialekts. – SFU, 20. 1984, 8–12.
Õispuu, J. Principy morfologičeskoj klassifikacii karel'skogo glagola. – SFU, 20. 1984, 91–98.
Õispuu, J. Sistema glagol'nogo slovoizmenenija v južnokarel'skih periferijnyh govorah. Rukopis' dissertacii na soiskanie učenoj stepeni kandidata filologičeskih nauk. Tartu. 1985.
Õispuu, J. Sistema glagol'nogo slovoizmenenija v južnokarel'skih periferijnyh govorah. Avtoreferat dissertacii na soiskanie učenoj stepeni kandidata filologičeskih nauk. Tartu. 1985.
Õispuu, J. Die Apokope und die Deklination des Nomens in der Djorža-Mundart des Karelischen. – SFU, 1. 1988, 9–12
Õispuu, J. Djorža-Karjalan nominitaivutus: symposiumi 88 (Turku, 30.08–02.09.88). Tallinna: Eesti NSV Teaduste Akadeemia. 1988.
Õispuu, J. O gradacii prilagatel'nyh v južno-karel'skih jazykovyh ostrovah. – Pribaltijskofinskoe jazykoznanie. Sbornik statej. Petrozavodsk: KarNC RAN. 1991, 11–18.
Õispuu, J. Verbivartalo ja verbin taivutustyyppien määrittelyä varsinaiskarjalassa. – Materialy VI Meždunarodnogo kongressa finno-ugrovedov. 2. Moskva: Nauka. 1990, 371–373.
Õispuu, J. Nominikäyttöä tverin karjalan murteelle käännetyssä "Matveista svätoi jovangelissa". – Eesti keele ja kirjanduse kateedri töid, 3. Tallinna Pedagoogikaülikool. Tallinn. 1992, 85–123.
Õispuu, J. Karjala keelesaarte sõnamuutmissüsteem = Inflectional system of Karelian enclaves. Acta Universitatis Socialium et Artis ducandi Tallinnensis. Tallinna Pedagoogikaülikooli

Toimetised. A1. Humaniora. Tallinn: Tallinna Pedagoogikaülikool. 1994.
Õispuu, J. Djorža karjala vormisõnastik = Morphological dictionary of Djorža Karelian. Tallinn: Tallinna Pedagoogikaülikool. 1995.
Õispuu, J. Der Einfluss des Russischen auf die Verbrektion im Karelischen. – LU, 34. 1998, 30–33.
Õunas, E. Adverbiaal karjala kaliinini murdes. Master's thesis. Tartu. 1967.

Dialect research

Ahtia, E. Raja-Karjalan murteista ja niiden viljelystä. – Karjalan heimo. 1949, 62–64.
ALFE 1–3 = Atlas Linguarum Fennicarum = Itämerensuomalainen kielikartasto = Lingvističeskij atlas pribaltijsko-finskih jazykov 1–3. Päätoim. T. Tuomi. SKST 800. Helsinki: SKS & Kotus. 2004–2010.
Anttikoski, E. O formirovanii karel'skogo jazyka. Available at http://www.kirjazh.spb.ru/karel/ant1.htm. Accessed 15.12.2016.
Ariste, P. Formirovanie pribaltijsko-finskih jazykov i drevnejšij period ih razvitija. – Voprosy ètničeskoj istorii èstonskogo naroda. Tallin. 1956, 5–27.
Ariste, P. A Case of Language Contact in the East Baltic Area. – SFU, 4. 1968, 81–84.
Ariste, P. Estonian and Karelian (Izhorian) Language Contacts. – SFU, 13. 1977, 7–1.
Barantsev, A. P. O nekotoryh aktual'nyh problemah issledovanija ljudikovskoj reči. – Virtaranta, P. & Koivusalo, E. Suomalais-ugrilaisen kielentutkimuksen symposiumi Petroskoissa 26.–27.3.1974: Petrozavodsk 26.–27.3.1974 simpozium po finno-ugorskomu jazykoznaniju. Helsinki: [Helsingin yliopisto]: SUS [jakaja]. 1975, 43–62.
Barantsev, A. Eteläkarjalaisten murteiden alkuperän ongelmasta. – Karjalan synty: Symposio 30.6.–2.7.1976 Joensuu: alustukset. Joensuu: Joensuun korkeakoulu. 1977, 63–64.
Barantsev, A. P. K voprosu o vzaimodejstvii jazykov južnoj Karelii v pervoj polovine XVII veka. – Karhu, E. G. et al. Itämerensuomalaisen filologian symposiumi –79: Esitelmien tiivistelmät = Simpozium –79 po pribaltijsko-finskoj filologii: tezisy dokladov. Petrozavodsk: AN SSSR. Karel'skij filial. 1979, 110–112.
Barantsev, A. P. O vzaimodejstvii jazykov južnoj Karelii v načale XVII veka. – Häkkinen, K. et al. Congressus quintus internationalis Fenno-Ugristarum, Turku 20.–27.VIII.1980. Turku: Suomen kielen seura. 1980, 321–329.
Barantsev, A. P. O nekotoryh aktual'nyh problemah issledovanija ljudikovskoj reči. – Virtaranta, P. & Koivusalo, E. Suomalais-ugrilaisen kielentutkimuksen symposiumi Petroskoissa 26.–27.3.1974: Petrozavodsk 26.–27.3.1974 simpozium po finno-ugorskomu jazykoznaniju. Helsinki: [Helsingin yliopisto]: SUS [jakaja]. 1975, 43–62.
Beljakov, A. A. Složenie i napravlenie razvitija karel'skogo jazyka (na materiale kalininskogo narečija). 1950. Manuscript. NA KarNC RAN.
Beljakov, A. A. Sovemennyj karel'skij dialekt s. Tolmači. Avtoreferat dissertacii na soiskanie učenoj stepeni kandidata filologičeskih nauk. Leningrad. 1946. Manuscript.
Beljakov, A. A. Jazykovye javlenija, opredeljajuščie granicy dialektov i govorov karel'skogo jazyka v KarASSR. – Pribaltijsko-finskoe jazykoznanie, 12. 1958, 49–62.
Bubrih, D. V. Instrukcija k sobiraniju materiala po finno-karel'skim govoram. – Trudy Kraevedčeskoj komissii. LOIKFUN, 2. 1928, 1–10.
Bubrih, D. V. Karely i karel'skij jazyk. Moskva: Izd-vo Mosoblispolkoma. 1932. Available at http://crecleco.seriot.ch/textes/Bubrix32.html.
Bubrih, D. V. Programma po sobiraniju materiala dlja dialektologičeskogo atlasa karel'skogo jazyka. Petrozavodsk: Karel'skij naučno-issledovatel'skij institut kul'tury. 1937.
Bubrih, D. V. & Anisimov, N. A. Programma po sobiraniju materiala dlja dialektologičeskogo atlasa karel'skogo jazyka. 2-e izd., dop. Petrozavodsk: Gosizdat. Karelo-Finskoj SSR. 1946.
Bubrih, D. V. Proishoždenie karel'skogo naroda: Povest' o sojuznike i druga russkogo naroda

na severe. Petroskoi: Gosizdat Karelo-Finskoj SSR. 1947. Available at http://www.kirjazh.spb.ru/ biblio/bubrih/bubrih0.htm.
Bubrih, D. V. Istoričeskoe prošloe karel'skogo naroda v svete lingvističeskih dannyh. – Izvestija Karelo-finskoj naučno-issledovatel'skoj bazy AN SSSR, 3. Petrozavodsk. 1948, 42–50.
Bubrih, D. V. O drevnej pribaltijsko-finskoj reči. – IKANIB AN SSSR, 1. 1949, 47–56.
Bubrih, D. V. Russkoe gosudarstvo i formirovanie karel'skogo naroda. – Pribaltijsko-finskoe jazykoznanie. Voprosy vzaimodejstvija pribaltijsko-finskih jazykov s inosistemnymi jazykami: K 80-letiju so dnja roždenija D. V. Bubriha. Leningrad: Nauka. 1971, 3–22.
Bubrih, D. V., Beljakov, A. A. & Punžina, A. V. Dialektologičeskij atlas karel'skogo jazyka: Karjalan kielen murrekartasto. L. Sarvas (ed.) Kotuksen julkaisuja, 97. Helsinki: Société Finno-Ougrienne. 1997.
Bulkin, A. A. Geografičeskaja razobščennost' i subètnosy karel. Rukopis' dissertacii na soiskainie učenoj stepeni kandidata filologičeskih nauk. Sankt-Peterburg. 2005.
Gromova, L. G. Dvujazyčie kak uslovie i perspektiva sohranenija i razvitija jazyka i kul'tury tverskih karel. – Istorija, kul'tura tverskih karel: Perspektivy razvitija. Materialy meždunarodnoj konferencii. Tver': TvGU. 1997, 12–24.
Grünthal, R. Itämerensuomalaisten kielten erilaisuus ja samuus. – Virittäjä, 108. 2004, 102–105.
Grünthal, R. Karjala kielten ja murteiden rajapintana. – Raivio, K. et al. Rajalla. Tiede rajojaan etsimässä. Helsinki: Gaudeamus. 2007, 108–117.
Haidu, P. Ural'skie jazyki i narody. Moskva: Progress. 1985.
Hakulinen, L. Suomen kielen rakenne ja kehitys. 4. korjattu ja lisätty painos. Helsinki: Otava. 1979.
Harakka, P. Karjalan kieli Suomessa. – Carelia, 3. 2002, 44–47.
Heikkinen, A., Hämynen, T. & Sihvo, H. Kahden Karjalan välillä: Kahden Riikin riitamaalla.
Joensuu: Joensuun yliopiston humanistinen tiedekunta: Joensuun yliopiston kirjasto [jakaja]. 1994.
Hirvonen, T. Ilomantsin Mutalahden puheenparteen vaikuttaneista tekijöistä. – Sihvo, H. (ed.) Karjala. Idän ja lännen silta. Kalevalaseuran vuosikirja 53. Porvoo: WSOY. 1973, 78–82.
Häkkinen, K. Suomen kielen äänne- ja muotorakenteen historiallista taustaa. Fennistica, 6. Turku: Åbo Akademi. 1985.
Itkonen, E. Kantasuomen äännehistoria. – Virittäjä, 57. 1953, 306–311.
Itkonen, T. Karjalaiset ja Kuolan-Lappi. – Kalevalaseuran vuosikirja, 22. Porvoo: WSOY. 1942, 40–55.
Itkonen, T. Historiantakaiset Häme ja Suomi kielentutkijan näkökulmasta. – Historiallinen Aikakauskirja 1972. Helsinki: Suomen historiallinen seura. 1972, 85–112.
Itkonen, T. Kantasuomesta suomeen. – Kautto, R. (ed.) Suomen tieteen ulottuvuuksia: Tieteen päivät 10.–12.1.1977. Porvoo: WSOY. 1978, 63–82.
Itkonen, T. Välikatsaus suomen kielen juuriin. – Virittäjä, 87. 1983, 190–229, 349–386.
Jazyki narodov SSSR. T. 3. Finno-ugorskie i samodijskie jazyki. Moskva: Nauka. 1966.
Jeskanen, M. "Karielat hormilla keššeššä." Sisä-Venäjän, erityisesti Tverin alueen karjalaiset. – Nevalainen, P. & Sihvo, H. (ed.) Karjala. Historia, kansa, kulttuuri. Helsinki: SKS. 1998, 255–276.
Jeskanen, M. 2005: Karjalan kieli ja karjalankieliset Suomessa. – Palander, M. & Nupponen, A.-M. (ed.) Monenlaiset karjalaiset. Suomen karjalaisten kielellinen identiteetti. Studia Carelica Humanistica 20. Joensuu: Joensuun yliopiston humanistinen tiedekunta. 2005, 215–285.
Jeskanen, M. Karjalan kieli Suojärvellä. – Hämynen, T. (ed.) Omal mual, vierahal mual. Suojärven historia III. Nurmes: Suojärven Pitäjäseura ry. 2011, 352–357.
Kalima, J. Entisen Käkisalmen läänin alueen aikaisemmasta kielimuodosta. – Virittäjä, 38. 1934, 254–256.
Kangasmaa-Minn, E. Suomen äännehistorian suuntaviivat. [Turun yliopisto]. 1978.

Kangasmaa-Minn, E. (1979). Suomen äännehistorian suuntaviivat (2., korj. p.). Turku: [Turun yliopisto]. 1979.
Karjalainen, K. F. Karjalan kielimurteet. – Härkönen, I. & Ahava, P. Karjalan kirja: 2 osa. Porvoo: WSOY. 1910, 3–6.
Karjalainen, K. F. Karjalan kielestä. – Homén, T. Itä-Karjala ja Kuollan Lappi. Helsinki: Otava. 1918, 151–155.
Karjalan kielen murrehatlasan klusterat. Available at karjalankieliopit.krc.karelia.ru.
Kert, G. M. Karel'skij jazyk. – Žerbin, A. S. et al. Karely Karel'skoj ASSR. Petrozavodsk: Karelija. 1983, 63–75.
Kettunen, L. Itä-Karjalan murteista. – Itsenäinen Suomi, 8–9. 1941, 56–58.
Kettunen, L. Karjalaisen heimon ja "karjalan kielen" ijästä ja alkuperästä. – Virittäjä, 44. 1940, 129–144, 282–301.
Kettunen, L. Karjalan kieli ja heimo. – Lehtinen, E. Suvulta suvulle: Karjalan sivistysseuran 50-vuotisjuhlajulkaisu 1906–1956. Valkeakoski. 1956, 97–100.
Kettunen, L. Karjalan kieli ja heimo. – Karjalan heimo. 1958, 100–101.
Kettunen, L. Suomen lähisukukielten luonteenomaiset piirteet. SUST 119. Helsinki: SUS. 1960.
Koivisto, V. Border Karelian Dialects – a Diffuse Variety of Karelian. – Palander, M.,
Riionheimo, H. & Koivisto, V. On the border of language and dialect. Helsinki: Finnish Literature Society (SKS). 2018, 56–84.
Korhonen, M. Karjalaisten ja saamelaisten yhteydet kielentutkimuksen valossa. – Karjalan synty: Symposio 30.6.–2.7.1976 Joensuu: alustukset. Joensuu: Joensuun korkeakoulu. 1977, 75–82.
Kovaleva, S. Kieli, kielimuoto vai murre? – Läänemeresoome keeled kaartidel. Itämerensuomalaiset kielet kartalla. 24.–26.10.2013. Tezizy konferencii. Võru. 2013, 8.
Kovaleva, S. V. Karely-ljudiki: sovremennaja sociolingvističeskaja situacija. – Finnougorskie jazyki i kul'tury v sociolingvističeskom landšafte Rossii. Materialy V Vserossijskoj konferencii finno-ugrovedov. Petrozavodsk: KarNC RAN. 2014, 284–286. Available at http://elibrary.krc.karelia.ru/345/1/mater_fin_ugr_konf.pdf.
Kovaleva, S. V. Ljudikovskoe narečie karel'skogo jazyka: problemy revitalizacii. – Materialy 43 Meždunarodnoj filologičeskoj naučnoj konferencii. Sekcija "Uralistika". 11–16 marta 2014. Sankt-Peterburg. 2014, 25–30.
Kujola, J. Sananen lyydiläisistä ja heidän kielistään. – Härkönen, I. & Ahava, P. Karjalan kirja: 2 osa. Porvoo: WSOY. 1910, 162–171.
Kunnas, N. Viena Karelians as Observers of Dialect Differences in Their Heritage. – Palander, M., Riionheimo H. & Koivisto, V. On the border of language and dialect. Helsinki: Finnish Literature Society (SKS). 2018, 123–155.
Laakso, J. et al. Tutkimusprojekti ELDIA (European Language Diversity for All: suomenkielinen tiivistelmä loppuraportista. 2013. Available at https://phaidra.univie.ac.at/detail_object/o:304814.
Laakso, J. et al. Otčet ob okončatel'nyh rezul'tatah meždunarodnogo issledovatel'skogo proekta ELDIA (European Language Diversity for All). 2013. Available at https://phaidra.univie.ac.at/detail_object/o:376832.
Laanest, A. Itämerensuomalaisten kielten ryhmityskysymyksiä. – Virittäjä, 76. 1972, 113–120.
Laanest, A. Kontakty ižorskogo jazyka s sosednimi blizkorodstvennymi jazykami. – SFU, 13. 1977, 253–260.
Laanest, A. Muinaiskarjalan fonologisia ja morfologisia piirteitä. – Gulya, J. et al. Congressus quartus internationalis Fenno-Ugristarum, Budapestini habitus 9.–15. Septembris 1975: Pars 4, Acta sectionis ethnographicae. Budapest: Akadémiai kiadó. 1981, 13–17.
Laanest, A. Sissejuhatus läänemeresoome keeltesse. Tallinn: Eesti NSV Teaduste Akadeemia Keele ja Kirjanduse Instituut. 1975.
Lehtinen, T. Kielen vuosituhannet: Suomen kielen kehitys kantauralista varhaissuomeen. Tietolipas 215. Helsinki: SKS. 2007.

Letonmäki, L. Karjalainen kielialue. – Izvestija Obščestva izučenija Karelii, 1. 1924, 59–63.
Leskinen, H. Itä-Karjalan historiaa kielentutkimuksen valossa. – Karjalan historiaa. Jyväskylä-Helsinki: Gummerus. 1938, 21–31.
Leskinen, H. Karjalaisten ja savolaisten kieli. – Kotiseutu, 3–4. Helsinki: Kotiseutuliitto. 1976, 66–70.
Leskinen, H. Karjalaiset ja savolaiset kielentutkimuksen näkökulmasta. – Karjalan synty: Symposio 30.6.–2.7.1976 Joensuu: alustukset. Joensuu: Joensuun korkeakoulu. 1977, 102–109.
Leskinen, H. Suomen itämurteet keskiajan ja uuden ajan taitteessa. – Virittäjä, 68. 1964, 97–115.
Leskinen, H. Karjala ja karjalaiset kielentutkimuksen näkökulmasta. – Nevalainen, P. & Sihvo, H. Karjala: Historia, kansa, kulttuuri. Helsinki: SKS. 1998, 352–382.
Lytkin, V. I. et al. Osnovy finno-ugorskogo jazykoznanija: Pribaltijsko-finskie, saamskij i mordovskie jazyki. Moskva: Nauka. 1975.
Makarov, G. N. Karel'skij jazyk. – Jazyki narodov SSSR. T. III. Finno-ugorskie i samodijskie jazyki. Moskva: Nauka. 1966, 61–80.
Markianova, L. Karjalan kieli rajantakaisessa Karjalassa. – Kokkonen, P. (ed.) Sukukansaohjelman arki. Suomalais-ugrilainen perintö ja arkipäivä. Studia Fenno-Ugrica 21.9.–16.11.2004. Castrenianumin toimitteita 64. Helsinki-Saarijärvi: M. A. Castrénin Seura, SUS, Helsingin yliopisto. 2005, 59–66.
Mullonen, I. I. Vvedenie v finno-ugrovedenie = Johdatusta fennougristiikkaan. Petrozavodsk: PetrGU. 2007.
Mustakallio, J. Vuokkiniemen Akonlahden kylän ynnä sitä ympäröivien kylien kielimurteesta. – Virittäjä, 1. 1883, 38–85.
Nagurnaja, S. V. Ljudikovskoe narečie karel'skogo jazyka: problemy i rešenija. – Materialy XLV Meždunarodnoj filologičeskoj konferencii. Sankt-Peterburg: SPbGU. 2016, 671–672.
Nevalainen, P. & Sihvo, H. (ed.) Karjala. Historia, kansa, kulttuuri. SKST 705. Helsinki: SKS. 1998.
Noormägi, K. Venäjän vaikutuksesta Tverin karjalassa. – Leskinen, H. et al. (ed.) Congressus octavus internationalis Fenno-Ugristarum. Jyväskylä 10.–15.8.1995. Pars IV. Sessiones Sectionum. Syntaxis et semantica & Contactus linguistici et status hodiernus linguarum & Cetera linguistica. Jyväskylä: Gummerus. 1996, 99–102.
Novak, I. P. & Egorova, A.A. Jazyk kak zerkalo istorii karel'skogo naroda (na južnokarel'skom dialektnom materiale sobstvenno karel'skogo narečija). – Kraevedčeskie čtenija: materialy X naučnoj konferencii (11–12.02.2016). Petrozavodsk. 2016, 121–126.
Novak, I. P. & Rodionova, A. P. Fonetičeskie i grammatičeskie markery karel'skoj dialektnoj reči. – Naučnoe obozrenie: Gumanitarnye issledovanija, 7. 2014, 117–129.
Oinas, F. Venäläisperäisiä aineksia itäisissä lähisukukielissä. – Virittäjä, 55. 1951, 123–128.
Ojansuu, H. Karjalan (ja Aunuksen) kielestä. – Härkönen, I. & Ahava, P. Karjalan kirja: 2 osa. Porvoo: WSOY. 1910, 10–16.
Ojansuu, H. Yhtä ja toista karjala-aunuksesta ja vepsästä. I. – Virittäjä, 20. 1916, 17–22.
Ojansuu, H. Yhtä ja toista karjala-aunuksesta ja vepsästä. II. – Virittäjä, 21. 1917, 113–119.
Pahomov, M. Lyydin kieli. – Carelia, 11. Petroskoi. 2000, 146–149.
Pahomov, M. Lyydiläiset ja lyydin kieli. – Lüüdilaine. Lyydiläisen Seuran vuosikirja. 2005, 8.
Pahomov, M. Lyydin kansan alkuperästä. – Carelia, 6. Petroskoi. 2007, 32–36.
Pahomov, M. Lyydiläiskysymys: Kansa vai heimo, kieli vai murre? Dissertation. Helsinki: Helsinki: Helsingin yliopisto & Lyydiläinen Seura. 2017. Available at http://urn.fi/URN:ISBN:978-951-51-2903-1.
Palander, M. Suomalaistuvatko vienalaismurteet? – Virittäjä, 111. 2007, 409–417.
Palander, M. & Nupponen, A.-M. (ed.) Monenlaiset karjalaiset. Suomen karjalaisten kielellinen identiteetti. Studia Carelica Humanistica 20. Joensuun yliopiston humanistinen tiedekunta. Joensuu. 2005.

Palander, M., Riionheimo, H. & Koivisto, V. On the border of language and dialect. Helsinki: Finnish Literature Society (SKS). 2018.
Palmeos, P. Märkmeid karjala valdai murdest. – ESA, 3. 1957, 180–198.
Palmeos, P. Karjala valdai murret uurimas. – Keel ja Kirjandus, 4–5. Tallinn: Eesti NSV teaduste akadeemia. 1958, 293–298.
Palmeos, P. Kõige lõunapoolsemate karjalaste juures. – Kodumurre, 7. Tallinn: Eesti NSV Teaduste Akadeemia Emakeele Selts. 1965, 35–44.
Palmeos, P. Jälle karjalastel küläs. – Keel ja Kirjandus, 1. Tallinn: Eesti NSV teaduste akadeemia. 1967, 31–35.
Palmeos, P. Pilk kõige lõunapoolsemale karjala murrakule. – ESA, 11. 1965, 215–225.
Palmeos, P. Über die südlichste karelische Mundart. – Kahla, M. & Räisänen, A. Congressus secundus internationalis Fenno-Ugristarum Helsingiae habitus 23.–28.8.1965: Pars 1, Acta linguistica. Helsinki: Societas Fenno-Ugrica. 1968, 376–380.
Palmeos, P. Djorža ääres. – Palmeos, P. et al. Saaremaast sajaanideni ja kaugemalegi. Tallinn: Valgus. 1970, 111–125.
Pal'meos, P. Ju. & Eliseev, Ju. S. Pribaltijsko-finskie i saamskij jazyki. – Sovetskoe jazykoznanie za 50 let. Moskva: Nauka. 1967, 215–222.
Pribaltijsko-finskie narody. Istorija i sud'by rodstvennyh narodov. Jokipii, M. (sost.): Jyväskylä: Atena. 1995. [alkuperäisteos Itämerensuomalaiset: Heimokansojen historiaa ja kohtaloita. Jyväskylä: Atena. 1995]
Pribaltijsko-finskie narody Rossii. Otv. red. Klement'ev, E. I. & Šlygina, N. V. Moskva: Nauka. 2003.
Programmy po sobiraniju materialov dlja dialektologičeskogo atlasa karel'skogo jazyka. NA KarNC RAN. F. 1, Op. 38, Nrot 21–167. 1937.
Pyöli, R. Venäläistyvä aunuksenkarjala: Kielenulkoiset ja -sisäiset indikaattorit kielenvaihtotilanteessa. Dissertation. Joensuu: Joensuun yliopisto. 1996.
Pyöli, R. Elostu paginan välis: Nykyaunusta ja karjalaiskulttuuria. Tervo: Salmi-säätiö. 2000.
Pyöli, R. Salmilaisten kieli. – Hämynen, T. et al. (ed.) Rajoil da randamil: Salmi ja salmilaiset 1617–1948. [Kuopio]: [Salmi-Säätiö]. 2015, 499–525.
Rapola, M. Itä-Karjalan murteen suhde Suomen yleiskieleen. – Suomalainen Suomi. 6–7. Helsinki. 1941, 274–281.
Rapola, M. Suomen kielen äännehistorian luennot. SKST, 283. Helsinki: SKS. 1966.
Rjagojev, V. D. O nekotoryh osobennostjah reči tihvinskih karel. – Naučnaja konferencija po itogam rabot za 1965 god. Petrozavodsk. 1966, 21–26.
Rjagojev, V. D. Issledovanija po tihvinskomu narečiju karel'skogo jazyka. – Virtaranta, P. & Koivusalo, E. Suomalais-ugrilaisen kielentutkimuksen symposiumi Petroskoissa 26.–27.3.1974:
Petrozavodsk 26.–27.3.1974 simpozium po finno-ugorskomu jazykoznaniju. Helsinki: [Helsingin yliopisto]: SUS [jakaja]. 1975, 192–199.
Rjagojev, V. D. Karel'skij jazyk. – Jazyki mira. Ural'skie jazyki. Moskva: Nauka. 1993, 63–76.
Rjagojev, V. D. Karel'skij jazyk. – Jazyki Rossijskoj Federacii i sosednih gosudarstv. II. Moskva: Nauka. 2001, 75–85.
Rjagojev, V. D. Karel'skij jazyk. – Pribaltijsko-finskie narody Rossii. Otv. red. Klement'ev, E. I. & Šlygina, N. V. Moskva: Nauka. 2003, 185–192.
Rodionova, A. Lyydiläiset itämerensuomalaisten kielten kartalla. – Läänemeresoome keeled kaartidel. Itämerensuomalaiset kielet kartalla. 24.–26.10.2013. Tezizy konferencii. Võru. 2013, 15.
Rodionova, A. P. Markery dialektnoj reči karelov-ljudikov. – Finno-ugorskie jazyki i kul'tury v sociokul'turnom landšafte Rossii: materialy V Vserossijskoj finno-ugrovedov. Petrozavodsk, 25–28 ijunja 2014 g. Petrozavodsk: KarNC RAN. 2014, 52–54.
Rodionova, A. P. Pohde, pohď, pohď'u: o nekotoryh osobennostjah karel'sko-ljudikovskoj dialektnoj reči. – Materialy 43 Meždunarodnoj filologičeskoj naučnoj konferencii.

Sekcija ”Uralistika”. 11–16 marta 2014. Sankt-Peterburg. 2014, 73–77.
Rodionova, A. P. Sovremennoe sostojanie ljudikovskogo narečija karel'skogo jazyka. – Materialy XLIV Meždunarodnoj filologičeskoj konferencii 10–15 marta 2015 g. Uralistika. Sankt-Peterburg: Filologičeskij fakul'tet SPbGU. 2015, 88–92.
Rodionova, A. P. & Nagurnaja, S. V. Ljudikovskoe narečie karel'skogo jazyka: problemy stanovlenija literaturnoj normy. – Finno-ugorskij mir, 2. Saransk. 2018, 48–57.
Rodionova A. P., Nagurnaja, S. V. & Čikina, N. V. Ljudiki: voprosy sohranenija jazyka i kul'tury. Issledovanija i materialy. Petrozavodsk: KarNC RAN. 2017.
Ruoppila, V. Karjalaiset ja savolaiset. – Kotiseutu, 4–5. Helsinki: Kotiseutuliitto. 1959, 85–90.
Salminen, T. Pohjoisten itämerensuomalaisten kielten luokittelun ongelmia. – Grünthal, R. & Laakso, J. Oekeeta asijoo: Commentationes Fenno-Ugricae in honorem Seppo Suhonen sexagenarii 16.V.1998. SUST, 228. Helsinki: SUS. 1998, 390–406.
Sarhimaa, A. Karjalan kansat ja kielet kontakteissa. Asutushistoriallista taustaa ja lingvistisiä seurauksia. – Virittäjä, 99. 1995, 191–223.
Sarhimaa, A. Syntactic transfer, contact-induced change, and the evolution of bilingual mixed codes. Focus on Karelian-Russian language alternation. Dissertation. Studia Fennica Linguistica 9. Helsinki: Finnish Literature Society. 1999.
Sarhimaa, A. The Karelian language in Finland: an overview of a language in context. WPELD 3. 2011. Available at http://phaidra.univie.ac.at/o:102613.
Sarhimaa, A. Karjalan kieli Suomessa: ELDIA-projektin tuloksia. Studies in European language diversity, 27.1. Mainz; Wien; Helsinki: ELDIA. 2013. Available at https://phaidra.univie.ac.at/detail_object/o:409753.
Sarhimaa, A. Karjalan kieli Suomes: ELDIA-projektan tuloksii. Lyhendetys suomenkielizes raportas livvikse kiändi M. Penttonen. Studies in European Language Diversity 27.2. Mainz; Wien; Helsinki: ELDIA. 2013. Available at https://phaidra.univie.ac.at/detail_object/o:409754.
Sarhimaa, A. Karjalan kieli Suomes: ELDIA-projektan tuloksie. Suomenkielizes lyhennelmäs varzinkarjalaksi kiändännyh P. Harakka. Studies in European Language Diversity 27.3. Mainz; Wien; Helsinki: ELDIA. 2013. Available at https://phaidra.univie.ac.at/detail_object/o:409755.
Sarhimaa, A. Karjalan kieli Šuomešša: ELDIA-projektin tulokšie. ELDIA-projektin tulokšie. Lyhennykšen šuomenkieliseštä raportista vienakši kiänti V. Karakina. Studies in European Language Diversity 27.4. Mainz; Wien; Helsinki: ELDIA. 2013. Available at https://phaidra.univie.ac.at/detail_object/o:409756.
Sarhimaa, A. Karelian in Finland: ELDIA Case Specific Report. Studies in European Language Diversity 27. Mainz; Wien; Helsinki: ELDIA. 2016. Available at http://phaidra.univie.ac.at/o:471733.
Sarhimaa, A. Vaietut ja vaiennetut: Karjalankieliset karjalaiset Suomessa. Tietolipas 256. Helsinki: SKS. 2017.
Serebrennikov, B. A. K probleme smešenija dialektov. – Pribaltijsko-finskoe jazykoznanie, 5. Leningrad: Nauka. 1971, 23–32.
Sihvo, H. Polemiikkia karjalan kielestä karjalaislehdistössä ja kirjallisuudessa. – Virittäjä, 72. 1968, 390–397.
Suhonen, S. Geschichte der ostseefinnischen Sprachen. – Sinor, D. The Uralic languages: description, history, and foreign influences. Leiden; New York: Brill. 1988, 288–313.
Suutari, P. Karjala-kuvaa rakentamassa. SKST, 1389. Helsinki: SKS. 2013.
Turunen, A. Lyydin asema vepsän ja karjala-aunuksen välimurteistona. – Virittäjä, 51. 1947, 1–12.
Turunen, A. Suojärven murre. – Pelkonen, L. (ed.) Suojärvi: 1. Pieksämäki: Suosäätiö. 1965, 27–38.
Turunen, A. Raja-Karjalan murteet ja vepsän kieli. – Sihvo, H. (ed.) Karjala: Idän ja lännen silta. Kalevalaseuran vuosikirja, 53. Porvoo: WSOY. 1973, 83–94.

Turunen, A. Vepsa, lüüdi ja karjala murrete tekkest ning nende ja teiste läänemeresoome keelte vahelistest suhetest – Läänemeresoome filoloogia sümpoosion 1973. Teesid. Tallinn: Eesti NSV Teaduste Akadeemia Keele ja Kirjanduse Instituut. 1973, 30–31.

Turunen, A. Suomen entisen Raja-Karjalan murteet ja niiden suhde rajantakaisiin ja Suomenpuoleisiin naapurimurteisiin. – Vuorela, L. A. (ed.) Suomalainen Tiedeakatemia: Esitelmät ja pöytäkirjat. 1975. Helsinki: Suomalainen Tiedeakatemia. 1976, 123–133.

Turunen, A. Lyydin ja aunuksen karjalaisia superstraatti-ilmiöitä. – Symposiumi 77; Helsinki 5.–11. 9. 1977: Esitelmien ja tiedonantojen tiivistelmät. Helsinki. 1977, 69.

Turunen, A. Lyydiläiset murresaarekkeet Karjalan tasavallan venäjänkielisellä alueella. – Posti L. (ed.) Kielen ja kulttuurin kentältä. Neuvostoliittoinstituutin vuosikirja N:o 25. Helsinki: [Neuvostoliittoinstituutti]. 1977, 173–186.

Turunen, A. The Carelian language in Finland. – Sinor, D. (ed.) Studies in Finno-Ugric linguistics in honor of Alo Raun. Bloomington: [Indiana University]. 1977, 353–371.

Turunen, A. Murteiden taistelua karjalassa. – Laatunen, S. (ed.). Lännen maita ja Karjalan kyliä. Lännen maita ja Karjalan kyliä. Kalevalaseuran vuosikirja, 58. Porvoo: WSOY. 1978, 90–98.

Turunen, A. Raja-Karjalan murteet. – Heikkilä, R. et al. Karjala: 2, Karjalan maisema ja luonto. Hämeenlinna: Karisto. 1982, 65–89.

Turunen, A. The Balto-Finnic languages. – Sinor, D. The Uralic languages: description, history, and foreign influences. Leiden; New York: Brill. 1988, 58–83.

Vahros, M. Karjalan kansan syntykysymys Bubrihin mukaan. – Virittäjä, 61. 1957, 141–146.

Vehvilainen, P. V. On the problem of superstrata and substrata in Balto-Finnic. – Journal of the Association for the Advancement of Baltic Studies (AABS). New York. 1972, 165–170.

Virtaranta, P. Tverin karjalaisten entistä elämää. Porvoo: WSOY. 1961.

Virtaranta, P. Suomussalmen karjalaiskylien kielioloista. – Fenno-Ugrica: Juhlakirja Lauri Postin kuusikymmenvuotispäiväksi 17.3.1968. SUST 145. Helsinki: SUS. 1968, 254–275.

Virtaranta, P. Die Dialekte des Karelischen. Gruppierung (mit Kurtzcharakteristika) und einige Fragen des Ursprungs. – SFU, 8. 1972, 7–27.

Virtaranta, P. Über den olonetzischen Konduši-Dialekt. – FUF, 40. 1973, 259–277.

Virtaranta, P. Die karelischen Dialekte. – Ariste, P. et al. Congressus tertius internationalis FennoUgristarum: Tallinnae habitus 17.–23.8.1970. 1, Acta linguistica. Tallinn: Valgus. 1975, 410–414.

Virtaranta, P. The dialects of the Karelian language. – Ariste, P. et al. Congressus tertius internationalis Fenno-Ugristarum: Tallinnae habitus 17.–23.8.1970. 1, Acta linguistica. Tallinn: Valgus. 1975, 410–414.

Virtaranta, P. Karjalaisista entisessä Tverin läänisssä. – Heikkilä, R. et al. Karjala: 2, Karjalan maisema ja luonto. Hämeenlinna: Karisto. 1982, 41–63.

Virtaranta, P. Kriterien zur Klassifizierung der Dialekte des Karelischen. – Veenker, W. (ed.) Dialectologia Uralica: Materialien des ersten Internationalen Symposions zur Dialektologie der uralischen Sprachen 4.–7. September 1984 in Hamburg. Wiesbaden: Harrassowitz. 1985, 117–137.

Virtaranta, P. Itämerensuomalaiset kielet. – Jokipii, M. Itämerensuomalaiset: Heimokansojen historiaa ja kohtaloita. Jyväskylä: Atena. 1995, 15–29.

Wiik, K. Karjalan kielen murteet. Kvantitatiivinen tutkimus. – Klesment, P. et al. Uralistika müüdid ja faktid = Myths and facts in uralistics. Tartu: Tartu ülikool. Uurali keelte haru. 2004.

Zaikov, P. M. Dialektologija karel'skogo jazyka. Petrozavodsk: RIO PetrGU. 1987.

Zlobina, V. E. O russko-karel'skih jazykovyh kontaktah (na materiale leksiki sobstvennokarel'skogo dialekta karel Kalininskoj oblasti). – Naučnaja konferencija, posvjaščennaja itogam raboty Instituta jazyka, literatury i istorii Karel'skogo filiala Akademii nauk SSSR za 1962 g. Petrozavodsk. 1963, 67–68.

Õispuu, J. Karjalased ja karjala murded. – Kaheksa keelt, kaheksa rahvast. Tallinn: TPedI

Kirjastus.1998, 37–49.

Dictionaries

Beljakov, A. A. Russko-karel'skij orfografičeskij spravočnik dlja karel'skih škol. Moskva: Učpedgiz. 1935.
Bojko, T. P. & Markianova, L. F. Bol'šoj russko-karel'skij slovar' = Suuri ven`a-karjalaine sanakniigu (livvikovskoe narečie). Petrozavodsk: Verso. 2011.
Bojko, T. P. & Markianova, L. F. Bol'šoj russko-karel'skij slovar' (livvikovskoe narečie). 2-e izd. pererab. i dop. Petrozavodsk: Periodika. 2016.
Elomaa, J. & Laakso, J. Lyydiläismurteiden käänteissanasto. Lexica Societatis FennoUgricae, 9, 2. Helsinki: SUS. 1986.
Fedotova, V. P. Frazeologičeskij slovar' karel'skogo jazyka: spravočnoe izdanie. Petrozavodsk: Karelija. 2000.
Fedotova, V. P. Kratkij frazeologičeskij slovar' karel'skogo jazyka: sobstvenno-karel'skoe i livvikovskoe narečija. Petrozavodsk: Periodika. 2001.
Fedotova, V. P. Deskriptivnye glagoly v karel'skom jazyke: slovar'. Petrozavodsk: Periodika. 2002.
Fedotova, V. P. & Bojko, T. P. Slovar' sobstvenno-karel'skih govorov Karelii. Petrozavodsk: [no publisher]. 2009.
Georgievskij, M. D. Russko-korel'skij slovar'. Sankt-Peterburg: Tipografija V. D. Smirnova. 1908. Karjalan kielen verkkosanakirja. I–VI. Lexica Societatis fenno-ugricae XVI. Helsinki: SUS. 1968–2005. Available at http://kaino.kotus.fi/cgi-bin/kks/kks_etusivu.cgi
Kujola, J. Lyydiläismurteiden sanakirja. Lexica Societatis Fenno-Ugricae, 9. Helsinki: SUS. 1944.
Makarov, G. N. Russko-karel'skij slovar'. Petrozavodsk: Karelija. 1975.
Makarov, G. N. Slovar' karel'skogo jazyka: Livvikovskij dialekt. Petrozavodsk: Karelija. 1990.
Markianova, L. & Boiko, T. Karjal-ven'alaine sanakniigu [livvin murdehel]. Petroskoi: Karjala. 1996.
Markianova, L. & Pyöli, R. Sanakirja suomi-karjala. Kuopio: Salmi-säätiö. 2008.
Penttonen, M. Karjal-suomi-karjal sanakniigu. [no place of publication]: Karjalan kielen seura. 2006.
Penttonen, M. Karjal-suomi-karjal sanakniigu. Päivitetty ja täydennetty painos. [Helsinki]: Karjalan Kielen Seura r.y. 2016.
Pohjanvalo, P. Salmin murteen sanakirja. SKST, 233. Helsinki: SKS. 1947.
Pohjanvalo, P. Salmin murteen sanakirja: Dictionnaire du dialecte de Salmi. Täydennysosa. SKST, 233. Helsinki: SKS. 1950.
Punttila, M. Impilahden karjalan sanakirja. Helsinki: SUS; Kotus. 1998.
Punžina, A. V. Slovar' karel'skogo jazyka: Tverskie govory. Petrozavodsk: Karelija. 1994.
Pyöli, R. Sanakirja karjala-suomi (1st ed). Lahti: Raija Pyöli. 2016.
Sopostavitel'no-onomasiologičeskij slovar' dialektov karel'skogo, vepsskogo, saamskogo jazykov. Pod obščej red. Ju. S. Eliseeva i N. G. Zaicevoj. Petrozavodsk: KarNC RAN. 2007.
Zaikov, P. M. & Rugoeva, L. I. Karel'sko-russkij slovar'. Petrozavodsk: Periodika. 1999.
Zaikov, P. M. Russko-severnokarel'skij slovar' (Venäjä-viena šanakirja). Petrozavodsk: Periodika. 2015.

Language samples

Ahlqvist, A. Suomalainen murteiskirja: Tahi lukemisia viron, karjalan, vatjan, vepsän ja liivin kielillä suomalaisten sanastojen kanssa. Helsingissä: Edlund. 1869.

Ahtia, E. V. Rahvahan kandeleh: Karjalan lauluo, virttä, soarnoa da tieduo. Viipuri: Karj. kansalaisl. 1922.
Barantsev, A. P. Obrazcy ljudikovskoj reči. Petrozavodsk: Karelija. 1978.
Duhovnaja kultura segozerskih karel konca XIX–načala XX v. Sost. U. S. Konkka, A. P. Konkka. Leningrad: Nauka, Leningradskoe otdelenie. 1980.
Hakulinen, L., Kalima, J. & Uotila, T. E. Itä-Karjalan: äänne- ja muoto-oppia, tekstejä, sanastoa. [Hki]: Otava. 1942.
Joalaid, M. Vanasõnu ja kõnekäände Djorža karjalastelt. – ESA, 19–20. 1973–1974, 291–296.
Joki, A. J. M. A. Castrenin vienalaiset sadut. – Turunen, A. & Laatunen, S. (ed.) Lännen maita ja Karjalan kyliä. Kalevalaseuran vuosikirja, 58. Porvoo: WSOY. 1978, 187–198.
Kujola, J. Karjalan kielen opas: Kielennäytteitä ja sanasto. (uus. laitos). Helsinki: SUS. 1922.
Kujola, J. Tverin- ja novgorodinkarjalaisia satuja. Helsinki: SKS. 1932.
Kukk, T. Näiteid karjala keele Vesjegonski murrakust, I–IV. Tartu. 1984–1990.
Kukk, T. Näiteid karjala keele Vesjegonski murrakust. – Fenno-Ugristica, Nr. 11. 1984, 118–132.
Kukk, T. Näiteid karjala keele Vesjegonski murrakust, II. – Fenno-Ugristica, Nr. 13. 1986, 146–158.
Kukk, T. Näiteid karjala keele Vesjegonski murrakust III. – Fenno-Ugristica. 1989, 163–169.
Kukk, T. Vesjegonskin karjalaisten tšastuškoja. Helsinki: Castrenianum. 1989.
Kukk, T. Näiteid karjala keele Vesjegonski murrakust, IV. – Fenno-Ugristica. 1990, 164–170.
Leskinen, E. Karjalan kielen näytteitä: 1, Tverin ja Novgorodin karjalaa. Helsinki: SKS. 1932.
Leskinen, E. Karjalan kielen näytteitä: 2, Aunuksen ja Raja-Karjalan murteita. Helsinki: SKS. 1934.
Leskinen, E. Karjalan kielen näytteitä: 3, Ent. Poventsan ja Kemin kihlakuntien karjalaismurteita. Helsinki: SKS. 1936.
Leskinen, E. Näytteitä Pohjois-Aunuksen ja Vienan karjalaismurteista. Helsinki: SKS. 1937.
Leskinen, E. Itäkarjalaismurteiden näytteitä. Helsinki: SKS. 1956.
Makarov, G. N. Obrazcy karel'skoj reči: Kalininskie govory. Moskva-Leningrad: Izd. AN SSSR. 1963.
Makarov, G. N. Kalinini-karjala murdenäited. – ESA, 9. 1963, 151–164.
Makarov, G. N. & Rjagojev, V. D. Obrazcy karel'skoj reči: govory livvikovskogo dialekta karel'skogo jazyka. Leningrad: Nauka. 1969.
Material'naja kultura i dekorativno-prikladnoe iskusstvo segozerskih karel konca XIX–načala XX. Leningrad: Nauka, Leningradskoe otdelenie. 1981.
Marttinen, I. & Virtaranta, H.Iivo Marttisen kalastuskertomuksia Vienan Karjalasta.–Virtanen, L. et al. Veden viljaa. Kalevalaseuran vuosikirja, 56, Porvoo; Helsinki: WSOY. 1976, 181–215.
Miettinen, L. & Leino, P. Karjalaisia sananpolvia. Helsinki: SKS. 1971.
Novak, I. P. Rasšifrovki èkspedicionnyh materialov A. V. Punžinoj 1966–1973 gg. po Tverskoj Karelii. – Kul'tura povsednevnosti karel'skoj sem'i (konec XIX–pervaja treť XX v.). Petrozavodsk: KarNC RAN. 2014, 84–154.
Novak, I. P. Obrazcy tverskoj karel'skoj dialektnoj reči. – Novak, I. P. Tverskie dialekty karel'skogo jazyka: Fonetika. Fonologija. Petrozavodsk: KarNC RAN. 2016, 137–191.
Obrazcy dialektnyh tekstov. Karel'skie govory – Pribaltijsko-finskoe jazykoznanie, 5. Leningrad: Nauka. 1971, 123–157.
Ojansuu, H. Poimintoja karjalan kielestä. – Virittäjä, 8. 1904, 11–19.
Ojansuu, H. A., Kalima, J., Kettunen, L. E. & Kujola, J. Lyydiläisiä kielennäytteitä. SUST, 69. Helsinki: SUS. 1934.
Pahomov, M. Kuujärven lyydiläistekstejä. SUST, 263. Helsinki: SUS. 2011.
Palmeos, P. Karjala valdai murrak. Emakeele Seltsi Toimetised Nr. 5. Tallinn: Eesti NSV Teaduste Akadeemia. 1962.
Palmeos, P. Karjala Djorža murraku näiteid. – TÜT, 259. 1970, 263–273.

Punttila, M. Impilahden karjalaa. Castrenianumin toimitteita, 41. Helsinki: SUS. 1992.
Punzhina, A. Karjalan kielen näytteitä. – Punalippu, 10. 1970, 122.
Punžina, A. V. Slušaju karel'skij govor: obrazcy reči deržanskih i valdajskih karel = Kuundelen karielasta paginatabua: Ďoržan da Valdain karelian murrehtekstat. Petrozavodsk: Periodika. 2001.
Raja-Karjalan murteiden näytteitä. – Suomen kansan murrekirja: 2, Itämurteet. Porvoo; Helsinki: WSOY. 1945, 355–392.
Rjagojev, V. D. Obrazcy karel'skoj reči: Tihvinskij govor sobstvenno karel'skogo dialekta. Leningrad: Nauka. 1980.
Rjagojev, V. & Jeskanen, M. Näytteitä karjalan kielestä. 1: Karjalan tasavallan ja Sisä-Venäjän karjalaismurteet. = Obrazcy karel'skoj reči 1: Govory respubliki Karelii, tihvinskih i tverskih karel. Joensuu; Petroskoi: Joensuun yliopisto. 1994.
Tverin Karjalaa: K. F. Karjalaisen v. 1895 kokoamia kielennäytteitä. Eripainos E. Leskisen julkaisusta Karjalan kielen näytteitä I. Helsinki: SKS. 1932.
Vienalaisia lastenlauluja. Toim. P. Virtaranta. Castrenianumin toimitteita, 3. Helsinki: SUS. 1973.
Virtaranta, H. & Virtaranta, P. Kauas läksit karjalainen. Porvoo: WSOY. 1986.
Virtaranta, H. & Virtaranta, P. Karjalan kieltä ja kansankulttuuria. I. Tverinkarjalaisia kielennäytteitä. SUST, 205. Helsinki: SUS. 1990.
Virtaranta, P. Vienan kansa muistelee. Porvoo: WSOY. 1958.
Virtaranta, P. Tverin karjalaisten entistä elämää. Porvoo: WSOY. 1961.
Virtaranta, P. Lyydiläisiä tekstejä, 1–5. Helsinki: SUS. 1963–1984.
Virtaranta, P. Lyydiläisiä tekstejä: 1. SUST, 129. Helsinki: SUS. 1963.
Virtaranta, P. Lyydiläisiä tekstejä: 2. SUST, 130. Helsinki: SUS. 1963.
Virtaranta, P. Lyydiläisiä tekstejä: 3. SUST, 131. Helsinki: SUS. 1964.
Virtaranta, P. Karjalan tekstejä. [Helsinki]: [SKS]. 1968.
Virtaranta, P. Suomussalmen karjalaiskylien kielioloista. – Fenno-Ugrica: Juhlakirja Lauri Postin kuusikymmenvuotispäiväksi 17.3.1968. SUST 145. Helsinki: SUS. 1968, 254–275.
Virtaranta, P. Polku sammui: vienalaiskylien vaiheita rajan molemmin puolin. Helsinki: Kirjayhtymä. 1972.
Virtaranta, P. Karjalaisia sananlaskuja ja arvoituksia. Castrenianumin toimitteita, 15. Helsinki: [Helsingin yliopisto]. 1976.
Virtaranta, P. Vienan kyliä kiertämässä: karjalaiskylien entistä elämää Venehjärvestä Kostamukseen. Helsinki: Kirjayhtymä. 1978.
Virtaranta, P. Karjalaisista entisessä Tverin läänissä. [Hki]: [Helsingin yliopisto. Suomen kielen laitos]. 1980.
Virtaranta, P. Lyydiläisiä tekstejä: 5. SUST, 165. Helsinki: SUS. 1984.
Virtaranta, P. Lyydiläisiä tekstejä: 6, Anna Vasiljevna Tšesnakovan kerrontaa ja itkuvirsiä. SUST, 218. Helsinki: SUS. 1994.
Virtaranta, P. & Adler-Pajusalu, E. Lähisukukielten lukemisto. SKST, 280. Helsinki: SKS, 1967.
Virtaranta, P., Laukkanen K. & Peltola, R. Lyydiläisiä tekstejä: 4, Hakemistot. SUST, 132. Helsinki: SUS. 1976.
Virtaranta, P. & Suhonen, S. Lähisukukielet: Karelian, Ludic, Vepsian, Ingrian, Votic, Livonian = Finnic languages. Helsinki: SKS. 1978.
Virtaranta, P. & Virtaranta, H. Kultarengas korvaan: Vienalaisia satuja ja legendoja. SKST, 303. Helsinki: SKS. 1971.
Zaikov, P. M. Metodičeskij material po karel'skoj dialektologii dlja studentov III kursa. Petrozavodsk. 1988.
Zaikov, P. Luvemma vienankarjalaksi: 3–4 luokka. Petroskoi: Karjala. 1995.
Õispuu, J. Djorža karjala tekstid. Tallinn: Tallinna Pedagoogiline instituut. 1990.

Abbreviations

AN = Akademija nauk (Academy of Sciences)
ASSR = avtonomnaja sovetskaja socialističeskaja respublika (Autonomous Soviet Socialist Republics of the Soviet Union)
ESA = Emakeele Seltsi Aastaraamat. Tallinn
FUF = Finnisch-Ugrische Forschungen. Helsinki
Gosizdat. = Gosudarstvennoe izdatel'stvo (state publishing house)
IKKF = Izvestija Karel'skogo i Kol'skogo filialov AN SSR (Reports of the Karelian and Kola affiliates of the USSR Academy of Sciences)
IKFNIB AN SSSR = Izvestija Karelo-Finskoj naučno-issledovatel'skoj bazy AN SSSR (Reports of the Karelian-Finnish scientific research division of the USSR Academy of Sciences)
Izd-vo = izdatel'stvo (publish house)
Kargoizdat = Karel'skoe gosudarstvennoe izdatel'stvo (Karelia state publishing house)
KarNC RAN = Karel'skij naučnyj centr Rossijskoj akademii nauk (Karelian Scientific Center of the Russian Academy of Sciences). Petrozavodsk
Kotus = Kotimaisten kielten keskus (aiemmin: Kotimaisten kielten tutkimuskeskus). Helsinki
LGU = Leningradskij gosudarstvennyj universitet (Leningrad state university)
LOIKFUN = Leningradskoe obščestvo issledovatelej kul'tury finno-ugorskih narodnostej (Leningrad society of researchers of the cultures of Finno-Ugric peoples)
LU = Linguistica Uralica (1965–1989 nimellä Sovetskoe Finno-Ugrovedenie). Estonian Academy of Sciences. Tallinn
MGOY = Moskovskij gosudarstvennyj oblastnoj universitet (Moscow state oblast university)
NA = Naučnyj arhiv (scientific archive)
OLJA = Otdelenie literatury i jazyka RAN (Department of literature and language of Russian Academy of Sciences)
PetrGU = Petrozavodskij gosudarstvennyj universitet (Petrozavodsk state university)
RAN = Rossijskaja akademija nauk (Russian Academy of Sciences)
RIO = redaktirovanie i oformlenie (editing and formatting)
SFU = Sovetskoe Finno-Ugrovedenie (since 1990 Linguistica Uralica)
SKS = Suomalaisen Kirjallisuuden Seura. Helsinki
SKST = Suomalaisen Kirjallisuuden Seuran Toimituksia. Helsinki
SPbGU = Sankt-Peterburgskij gosudarstvennyj universitet (Saint Petersburg state university)
SSR = sovetskie socialističeskie respubliki (soviet socialist republics)
SSSR = Sojuz sovetskih socialističeskih respublik (Union of Soviet Socialist Republics, USSR)
SUS = Suomalais-Ugrilainen Seura / Société Finno-Ougrienne. Helsinki
SUSA = Suomalais-Ugrilaisen Seuran Aikakauskirja. Helsinki
SUST = Suomalais-Ugrilaisen Seuran Toimituksia. Helsinki
TKF = Trudy Karel'skogo filiala AN SSSR (Studies of the Karelian affiliate of the USSR Academy of Sciences)
TvGU = Tverskoj gosudarstvennyj universitet (Tver state university)
UZLGU = Učenye zapiski Leningradskogo gosudarstvennogo universiteta (Scientific publications of the Leningrad state university)
UZKFGU = Učenye zapiski Karelo-Finskogo gosudarstvennogo universiteta (Scientific publications of the Karelian-Finnish state university)
UZPGU = Učenye zapiski Petrozavodskogo gosudarstvennogo universiteta (Scientific publications of the Petrozavodsk state university)
TÜT = Tartu Riikliku Ülikooli toimetused. Tarto
VAPK = Valtion painatuskeskus. Helsinki