

## About the graphic and dialectal features in Udmurt dictionaries in the 18th century

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**SUMMARY :** *In this article we present a complete corpus of differences between the Udmurt word lists collected by J.E. Fisher and G.F. Miller in the XVIII century. This is important because it is generally believed that there were a lot of mistakes in the first dictionaries in the languages of the peoples of Russia. And the different spelling of certain words made by two authors is usually given as confirmation of this idea. In this article, we plan to show that the variability of spelling can be associated not with errors, but with dialect differences due to the fact that the material could have been collected in different areas. In the first part of the article all differences between I. Fisher's and G. Miller's wordlists are collected and analyzed. In the second part of the article we show that the study of the place of accent in these lists proves that the list of I. Fisher is not a simple copy of G. Miller's one. The place of accent in these lists coincides with the place of accent in etymological analogues of these words in Komi-Yazva language.*

**Keywords:** *Udmurt dialect, accent, first dictionaries*

In this article we present a complete corpus of differences between the Udmurt word lists collected by J.E. Fisher and G.F. Miller in the XVIII century. This is important because it is generally believed that there were a lot of mistakes in the first dictionaries in the languages of the peoples of Russia. And the different spelling of certain words made by two authors is usually given as confirmation of this idea. In this article, we plan to show that the variability of spelling can be associated not with errors, but with dialect differences due to the fact that the material could have been collected in different areas.

The differences in the lists collected by J.E. Fisher and G.F. Miller can be classified into two types: 1) variations in the Latin transcription of the same Udmurt word, with differences in the letter composition between Fisher and Miller, and 2) cases where the letter composition remains the same, but there are differences in diacritics. There are also instances where differences occur in both the letter composition and diacritics. As will be demonstrated below, it is appropriate to study these two types of differences separately.

The following table provides a list of differences of the first type. They are divided into several thematic groups to demonstrate that these variations did not occur spontaneously as transcription errors but were based on specific systems for transcribing Udmurt phonemes into Latin characters.

*Table 1. Differences in the Letter Composition of Udmurt Words in the Lists of J.E. Fisher and G.F. Miller.*

	<b>J.E. Fisher</b>	<b>G.F. Miller</b>
Indication of softness	<i>adjämi</i> 'human'	<i>Adjami</i>
	<i>árnä</i> 'week'	<i>Arna</i>
Indication of sonority at the end of the word	<i>piëll</i> 'ear'	<i>Piel</i>
	<i>warr</i> 'servant'	<i>War</i>
Indication of -s	<i>küs</i> 'bubble'	<i>Küss</i>
	<i>ssed-uswès</i> 'lead'	<i>Ssed-uswèss</i>
	<i>tédi-uswès</i> 'tin'	<i>Tedi-uswèss</i>
Appearance of -h at the end of the	<i>lümüuh</i> 'snow'	<i>Lümü</i>

word	<i>luòh</i> 'sand'	<i>Luò</i>
	<i>muntschò</i> 'bathhouse'	<i>Muntschòh</i>
	<i>urobò</i> 'cart'	<i>Urobòh</i>
Non-systematic inconsistencies	<i>doss</i> 'ten'	<i>Dass</i>
	<i>düü</i> 'camel'	<i>Düü</i>
	<i>gósy</i> 'rope'	<i>Gósjí</i>
	<i>kuspi</i> 'birch tree'	<i>Küspi</i>
	<i>nel</i> 'arrow'	<i>Niel</i>
	<i>tödi-tui</i> 'brass'	<i>Tédi-Tui</i>
	<i>telès</i> 'month'	<i>Tolès</i>
	<i>wui</i> 'butter'	<i>Wuy</i>
	<i>parsspi</i> 'piglet'	<i>Párspi</i>
Mistakes by Miller, right transcription by Fisher	<i>tschuckasä</i> 'morning'	<i>Tschuikasä</i>
	<i>pochtsch-árnä</i> 'четверг'	<i>Poch-árnä</i>

Thus, it is evident that the differences in the graphics are relatively few, but some of them demonstrate a systematic nature. However, in principle, it is theoretically possible that these differences arose due to J.E. Fisher making some changes while transcribing the list from the data collected by G.F. Miller. The analysis of the data regarding stress placement in the lists of J.E. Fisher and G.F. Miller appears to be much more intriguing.

**Comparative Analysis of Stress Placement in Udmurt Materials by J.E. Fisher and G.F. Miller, and in Komi-Zyryan Dialects**

Upon analysing the stress placement in Udmurt words from the lists of J.E. Fisher and G.F. Miller and comparing them with their etymological parallels in the Komi-Zyryan dialect, we arrived at a striking conclusion: in words with a Finno-Ugric etymology (i.e., in the original lexicon), the stress placement in Udmurt words (in cases where the word has stress marked in the lists of Fisher and Miller) always coincides with the stress placement in the etymological parallels in the Komi-Zyryan dialect.

Table 2. Group 1

J.E. Fisher	G.F. Miller	Komi-Yazva
<i>tschúni</i> 'foal'	<i>Tschúni</i>	<i>ч'ан'</i> (ч'án'uc)
<i>déddi</i> 'sledge'	<i>Déddi</i>	<i>д'эд'эн</i>
<i>gógi</i> 'navel'	<i>Gógi</i>	<i>гэг'</i> (гэг'эн')
<i>gósy</i> 'rope'	<i>Gósjí</i>	<i>гуз</i> (гúзэн)
<i>iskò</i> 'sleep'	<i>Iskò</i>	<i>уз'на</i>

<i>jedi</i> 'barley'	<i>Jedi</i>	идйá
<i>hulèm</i> 'to die'	<i>Kulèm</i>	кулнə
<i>kúmis</i> 'green onion'	<i>Kúmis</i>	ку'мич'
<i>kurèk</i> 'chicken'	<i>Kurèk</i>	курə́г
<i>pénmet</i> 'dark'	<i>Pénmet</i>	пíмəт
<i>pukskò</i> 'I am sitting'	<i>Pukskò</i>	пукáлнə
<i>pukòn</i> 'chair'	<i>Pukòn</i>	пукáлнə
<i>púni</i> 'spoon'	<i>Púni</i>	пан' (пáн'əн)
<i>púrti</i> 'cauldron'	<i>Púrti</i>	пú́ртис
<i>sülskò</i> 'I am standing'	<i>Sülskò</i>	сулáлнə
<i>surèss</i> 'road'	<i>Surèss</i>	с'урдú 'spine'
<i>šutèm</i> 'hungry'	<i>Šutèm</i>	с'имáлнə кəнə м
<i>schúndi</i> 'sun'	<i>Schúndi</i>	шóнди
<i>schúnut</i> 'warm'	<i>Schúnut</i>	шóнəт

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Group 2 is the most crucial for the purposes of this study (to prove the scientific value of J.E. Fisher's materials). This group consists of words in which the stress placement in Fisher's list coincides with the stress placement in their etymological parallels in the Komi-Zyryan language, while in Miller's list, the stress marking is absent.

Table 3. Group 2

<b>J.E. Fisher</b>	<b>G.F. Miller</b>	<b>Komi-Yazva</b>
<i>ditschi</i> 'fox'	<i>Ditschi</i>	рүч' (рүч'úс)

<i>júggut</i> ‘light’	<i>Juggut</i>	йўга
<i>mi sülskàm</i> ‘we are standing’	<i>Sülkom</i>	сулалнә
<i>mon sülskò</i> ‘I am standing’	<i>Mon sülsko</i>	сулалнә
<i>mon pukskò</i> ‘I am sitting’	<i>Mon puksko</i>	пукáлнә
<i>wi sülem</i> ‘You (plural) are standing’	<i>Wi sülem</i>	сулалнә
<i>ton sülskò</i> ‘You (singular) are standing’	<i>Ton sülsko</i>	сулалнә
<i>dschidtäsä</i> ‘evening’	<i>Dschasa</i>	рәтс’á ‘nightly’
<i>nisèk</i> ‘rye’	<i>Ziseck</i>	рүз’á з, рүз’óз

The next group of words (Group 3) also demonstrates that stress placement in the lists of Fisher and Miller does not always coincide, but when it differs, Miller's transcription is more accurate. Group 3 consists of words in which the stress placement in Miller's list coincides with the stress placement in their etymological parallels in the Komi-Zyryan dialect, while in Fisher's list, stress falls on a different syllable.

Table 4. Group 3

<b>J.E. Fisher</b>	<b>G.F. Miller</b>	<b>Komi-Yazva</b>
<i>tschorik</i> ‘fish’	<i>Tschórik</i>	ч’эри
<i>túron</i> ‘grass’	<i>Turòn</i>	турá н, турóн

Group 4 consists of words in which stress marking is absent in Miller's list, while in Fisher's list, the stress contradicts the Komi-Zyryan data.

Table 5. Group 4

<b>J.E. Fisher</b>	<b>G.F. Miller</b>	<b>Komi-Yazva</b>
<i>atskò</i> ‘I see’	<i>Atsko</i>	áз’з’илно

<i>mýnnine</i> 'To go'	<i>Mynnine</i>	<i>муннэ</i>
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Indeed, groups 3 and 4 seem to contain words where J.E. Fisher made errors<sup>7</sup>. The small number of such words demonstrates that the stress data collected by J.E. Fisher in the Udmurt language is relatively accurate. The last group (Group 5) consists of words that can be called "true exceptions." In these words, the stress placement in Fisher's list and the Latin part of Miller's list coincides but differs from the stress placement in their etymological parallels in the Komi-Zyryan dialect. However, it is important to note that in the Cyrillic part of Miller's list, stress is absent in these words.

Table 6. Group 7<sup>8</sup>

J.E. Fisher	G.F. Miller	Komi-Yazva
<i>büрдem</i> 'crying'	<i>Büрдem</i>	<i>бүрдэм</i>
<i>júni</i> 'to drink'	<i>Júni</i>	<i>йунэ</i>
<i>sermét</i> 'bridle'	<i>Sermèt</i>	<i>с'эрмэт</i>

It appears that two out of three exceptions can be explained. In the word udm. *júni* 'to drink', Komi-Yazva *júni* 'to drink', the stress falls on the first syllable, representing the reflex of an etymologically long vowel (compared to Finnish *juo-* 'to drink'). According to the findings in [Normanskaja 2008], the rule regarding the reflex of stress on etymologically short vowels, does not apply to etymologically long vowels.

Similarly, the word udm. *sermét* 'bridle', Komi *с'эрмэт* 'bridle', is believed to be a Mari loanword (cf. Mari *шөрмыч*, dialectal *se'rməts*, *šórmüt's'* 'bridle') see a detailed analysis of the literature in [Hausenberg 1973]. Some researchers, like G. Beretski, propose an alternative hypothesis of Mari loanwords from the Permyak languages. However, the etymology *\*s'ermVtti* 'bridle' [Sammallahti 1988], which involves comparing Permyak and Mari words, is considered highly problematic. The Udmurt word *büрдem* 'crying' and the Komi-Yazva word *бүрдэм* also lack a Finno-Permyak etymology according to [UEW].

Thus, it is evident that:

In the Latin part of Miller's list, there are three exceptions (Group 5) where stress placement does not coincide with the stress placement in the etymological parallels in the Komi-Yazva dialect. One of these exceptions features an etymologically long vowel, while the other two lack Finno-Permyak etymology and could be loanwords, meaning that the stress placement in these words might simply match that of the source language. For instance, in loanwords from the Tatar language in Fisher's and Miller's lists, stress placement mostly coincides with the stress in Tatar words. In all other words in the Latin part of Miller's list, stress placement matches the stress in the etymological parallels in the Komi-Yazva dialect.

In Fisher's list, stress placement in Udmurt words differs from the stress placement in the Komi-Yazva dialect in seven cases (groups 3, 4, 5). The higher number of exceptions in Fisher's list compared to Miller's list is likely due to the lower precision of Fisher's data. This imprecision was also evident when Fisher transcribed Udmurt sounds using German graphemes. The number of typos/mistakes in his work is considerably higher compared to G.F. Miller's work. On the other hand, Group 2, which comprises nine words where stress placement in Fisher's list coincides with the stress placement in their etymological parallels in the Komi-Yazva dialect, while stress is absent in Miller's list, shows that J.E. Fisher did not place the stress randomly and did not simply copy it from Miller's data.

The question arises: why does the stress placement in Fisher's and Miller's lists coincide with the stress placement in the etymological parallels specifically in the Komi-Yazva dialect? Is this coincidence merely accidental? Are there any other pieces of evidence indicating that the stress placement represented in the Komi-Yazva dialect and in Fisher's and Miller's lists in the Udmurt language is a reflex of Proto-Permyak stress that has remained unchanged in these languages?

To answer this question, we can look to the findings in [Normanskaja 2018], which demonstrate that stress placement in the Komi-Yazva language aligns with Proto-Permyak stress.

Thus, our proposed hypothesis about the possibility of extrapolating stress synchronically represented in the Komi-Yazva language to the Proto-Permyak level and the significant influence of this stress placement on the development of the vowel system in the Komi and Udmurt languages has received new confirmation based on the materials from the ancient Udmurt lists of G.F. Miller and J.E. Fisher. It was previously believed that stress in the Udmurt language was almost always fixed on the first syllable; now we see that in the ancient

Udmurt language, except for borrowings, it essentially coincided with the stress placement in the Komi-Yazva language. These data demonstrate the necessity of reconstructing variable stress for the Proto-Permyak language, which practically remained unchanged in both the modern Komi-Yazva dialect and the ancient Udmurt language as was recorded by G.F. Miller and J.E. Fisher.

Considering our proposed reconstruction of the vowel system, we can reconstruct the Proto-Permyak stress placement even without reflexes of a specific word in the Komi-Yazva dialects, based only on the reflexes of vowels in other Komi and Udmurt dialects. If the reflexes of Proto-Permyak \* *u* , \**u* are found in the first syllable, and in the palatalizing position Komi and Udmurt have *i*, then the stress was on the second syllable. If there are reflexes of other vowels, then the stress was on the first syllable.

Let us examine words that do not have reflexes in the Komi-Yazva dialect but have stress markings in Fisher's or Miller's lists and have reflexes in other Komi dialects. It turns out that in these cases, the Proto-Permyak and ancient Udmurt stress placements also fully coincide.

Proto-Permyak stress on the first syllable

Table 9

J.E. Fisher	G.F. Miller	Permyak languages
<i>gósti</i> 'to write'	<i>Gósti</i>	Komi <i>gižni</i> , Udmurt <i>gežni</i> , Udmurt <i>gožjani</i> 'To write'
<i>sárni</i> 'gold'	<i>Sárni</i>	Komi, Udmurt <i>zarn'i</i> 'gold'
<i>góndir</i> 'bear'	<i>Gondir</i>	Komi <i>gundir</i> 'beast, dragon, snake', Udmurt <i>gondir</i> 'bear'
<i>sáris</i> 'sea'	<i>Saris</i>	Komi <i>sariž'</i> , Udmurt <i>zarež'</i>

2) Proto-Permyak stress on the second syllable: reflexes of Proto-Permyak \* *u* , \**u* are present in the udmurt language, *i* in the palatalizing position

Table 10

J.E. Fisher	G.F. Miller	Permyak languages
<i>isì</i> 'hat'	<i>Isì</i>	коми <i>uz'</i> 'wort cap, upper sheaf of wort', Udmurt <i>iz'i, iz'i, uz'i</i> 'hat'
<i>irgòn</i> 'copper'	<i>Irgòn</i>	Komi <i>irge n</i> , Udmurt <i>irgon</i>
<i>pillèm</i> 'cloud'	<i>Pillèm</i>	Komi <i>piv</i> 'cloud', Udmurt <i>pilem</i> 'cloud'
<i>sustèl</i> 'candle'	<i>Sustèl</i>	Komi <i>s'is'tas'ni</i> 'to stick to', <i>s'us'</i> 'wax'
<i>kusò</i> 'owner'	<i>Kuso</i>	Komi <i>kuz'</i> 'wood goblin', удм. <i>kuz'o</i> 'owner'
<i>nulèss</i> 'fir tree'	<i>Nulèss</i>	Komi <i>n'il</i> , Udmurt <i>n'ilpu</i>
<i>sisìm</i> 'seven'	<i>Sisim</i>	Komi <i>s'iz'im</i> , Udmurt <i>s'iz'im</i>
<i>tilò-burdò</i> 'bird'	<i>Tilo-burdo</i>	Komi <i>tiv</i> 'birds feather', Udmurt <i>tili</i> 'feather'

Upon analysis we can see that approximately in half of the cases, stress is unmarked in Miller's list, while Fischer's list indicates stress that accurately corresponds to the Proto-Permyak stress. Thus Fischer's list is more complete compared to Miller's list, and has received unexpected support from the Komi-Yazva data and

ultimately Proto-Permyak data. This fact allows us to argue that Fischer's list was not simply a copy of Miller's list.

### **Analysis of the dialectal features of the Udmurt materials of J.E. Fischer and G.F. Miller:**

In L.M. Ivshin's article, attention is drawn to the fact that some Udmurt vowel phonemes in Fischer's transcription<sup>12</sup> were recorded in several different ways. For instance, the vowel *j* is recorded using German letters *ü, i, y, ui, u<sup>13</sup>, e, o, a*; the vowel *ɛ* is recorded using German letters *e, i, ü, u, e / ö<sup>14</sup>*; and the vowel *e* is recorded using German letters *e, ie, ä, i*.

This ambiguous representation of these Udmurt sounds catches the researcher's attention. Even more surprising is the fact that both Miller and Fischer consistently represent these sounds in the same way in each specific word. If Fischer's records were not copied from Miller's materials, then the only explanation for this diversity is that the scholars indeed heard different sounds in the same places of the common Udmurt phonemes.

L.M. Ivshin puts forth the assumption that Fischer collected material from speakers of various Northern and Southern Udmurt dialects. And these dialect speakers had significant differences in the pronunciation of the sound which, in modern Udmurt literary language, sounds as *j*.

We noticed that for these three vowel sounds *j, ɛ, e*, there is one (or two) most frequent way of representation, while other variants are more rare. It turns out that these less common variants are distributed in clusters throughout the list. For example, the representation of *j* through *ui* is found in a localised portion of the list — from numbers 174 to 187.

Below we present information about the distribution of the variants of the three vowel sounds *j, ɛ, e* throughout the numbered<sup>15</sup> word list:

**1.** The two most frequent<sup>16</sup> variants of the Udmurt vowel *j* in Miller's and Fischer's records are *i* and *ü*. These occur in all parts of the list.

The representation of Udmurt *j* through *ui* is found in the lists of Miller and Fischer in the following words: *muis* **174** 'roe', *puis* **175** 'flour', *wuischi / wischi* **184** 'root', *buisch* **187** 'tail'.

The representation of Udmurt *j* through *e* is found in the lists of Miller and Fischer in the words<sup>17</sup>: *isene* **197** 'to sleep', *weräne* **203** 'to say', *mýnnine* **205** 'to go', *pénmet* **234** 'dark'.

**2.** The most frequent representation method of the Udmurt vowel *ɛ* in Miller's and Fischer's records is *e*. It is found in the following words: *jegù* **42** 'cellar (pit with ice)', *ssed-uswès* **51** 'lead', *nel* **123** 'sagitta, bowstring', *déddi* **125** 'sledge', *tschêsch* **163** 'anas', *jel* **167** 'milk'.

The second representation method, which is encountered repeatedly, is using the letter *ü*: *küss-nunal* **25** 'dry day, Dies Saturni, Saturday'; *bürdèm* **216** 'lacrimo, to cry'; *küss* **238** 'dry'.

**3.** The Udmurt vowel *e* is most often represented by the German letter *e* in the majority of cases. This representation is found almost in all parts of the list.

The second most frequent representation method, which is found exclusively in the last syllable of a multi-syllable word, is using the letter *ä*: *ssoräk* 'pluvia, it is raining'; *dschidtásä* 'vesper, evening (in the evening)'; *tschugä* 'verberare, to beat (he/she)'; *so sillä* 'stat, he/she is standing'; *tschuckasä* 'cras, tomorrow'; *tunnä* 'hodie, today'; *ussä* 'perendie, the day after tomorrow'. As noted in [Kelmakov 1998: 53], in all Udmurt dialects, the phoneme *e* appears in the auslaut before a vowel, which was noted by B. Munkacsi with the letter *ä* and by Y. Wichmann with the sign *ε*, for example: (Munkacsi) *kel'tä* ~ (Wichmann) *kel'te* 'he leaves'. It can be noticed that in the considered examples from Fischer's and Miller's materials, the representation of *e* through *ä* is exclusively found in the last open syllable of a multi-syllable word. Therefore, L.M. Ivshin's hypothesis that the representation of *e* through *ä* in the considered words is related to the appearance of the vowel *ä* in some peripheral Southern dialects, which developed under the influence of the Tatar language, does not seem entirely convincing.

In these mentioned dialects, the vowel *ä* appeared in place of the Udmurt *a*, not *e* [Kelmakov 1998: 58]. It is also evident that in Fischer's and Miller's materials, the representation of *e* through *ä* is specifically limited to one well-defined position.

In two cases, the representation with the combination *ie* is also recorded: in Miller's list *piél* and in Fischer's list *piéll* **77** 'aures, ears'; *sapièk* **102** 'ocreae, boots'.

Thus, based on the analysis of how the Udmurt sounds *j* and *ɛ* are represented using different German letters, several dialectal parts of the list can be distinguished:

Part I - words with numbers 1 to 25: a special representation of the Udmurt vowel *ɛ* using *ü*.

Part II - words with numbers 26 to 196: the standard (most frequent) representation of all Udmurt vowels:  $\epsilon$  using  $e$ ,  $j$  using  $i$  and  $\ddot{u}$ .

Part III - words with numbers 197 to 250: a special representation of  $j$  using  $e$  and  $\epsilon$  using  $\ddot{u}$ .

As shown in [Kelmakov 1998], the representation of vowels in Part II is the most typical for Udmurt dialects; it is present in Northern, Central dialects, and most Southern dialects.

Now let's analyse the representation of Udmurt phonemes in Part I and Part III of the list. According to [Kelmakov 1998], similar changes in the considered vowels occurred in peripheral Southern Udmurt dialects:

Udm.  $\epsilon$  (in the majority of Udmurt dialects - a mid-level unrounded vowel of the mid series) in the speech of peripheral-southern dialects: Kukmara, Shoshma, Bawli, Tatishla, Krasnoufimsk, as well as in the speech of the Varklet-Bodja village (southern dialect) shifted to a front-mid rounded vowel, which somewhat resembles the analogous vowel  $\ddot{o}$  in the Finnish and Hungarian languages but, unlike them, the Udmurt  $\ddot{o}^\circ$  has a slightly retracted quality, cf. the representation of  $\epsilon$  in the first and third parts of the list as  $\ddot{u}$ .

Udm.  $j$  (in the majority of Udmurt dialects - a high-level unrounded vowel of the mid series) in the Krasnoufimsk dialect (a peripheral southern dialect) is significantly advanced forward, of the mid series [Nasibullin 1978], compare the representation of  $j$  as  $e$  in the third part of the list.

Based on this, it can be assumed that Part I of the material (words with numbers 1 to 25) was recorded from speakers of Southern peripheral dialects (Kukmara, Shoshma, Bawli, Tatishly), Part II (words with numbers 26 to 196) from speakers of Northern or Central dialects, and Part III (words with numbers 197 to 250) from speakers of the Krasnoufimsk dialect.

With this hypothesis in mind, it is interesting to compare it to the known route of the second Kamchatka expedition and to the distribution map of the Udmurt dialects.

The route of the Second Kamchatka Expedition is known. Within the territory of Udmurt language distribution, it followed the path: Khlynov (Vyatka, Kirov) - Solikamsk - Turinsk.

We assume that the first part of the list was collected from speakers of the Shoshmink Dialect (Peripheral Southern Dialect), which is currently represented in the Kirov Oblast. Then, the expedition entered the region of the Northern and Central Dialects, where the second, largest part of the list was collected. The third part of the list was collected from speakers of the Krasnoufimsk Dialect, the easternmost Udmurt dialect, which is located closest to Turinsk. It is possible that during the time of the Second Kamchatka Expedition, the territories occupied by speakers of the peripheral Southern dialect were more extensive. However, in any case, the analysis of the map of Udmurt dialects and the route of the Second Kamchatka Expedition precisely confirms and even refines the results obtained through the linguistic analysis of the list of Udmurt words.

Thus, our study shows that the reason for the variation in the representation of Udmurt vowel phonemes using different German graphemes is not that Fischer and Miller were unaware of how to transcribe the corresponding sound but rather that the list of words was collected in different dialectal zones. Analysing the distribution of different types of interpretations of vowels across different parts of the list reveals their association with dialectal differences in the collected material.

Studying these data and comparing them with archival materials about the expedition's route can help refine the boundaries of Udmurt dialect areas in the 18th century and determine which phonetic changes characterising the modern dialects had already occurred at that time. It seems that the method we applied can also be used for analysing dialectal materials collected by G.F. Miller, J.E. Fisher, and other researchers on other Uralic languages. It is highly likely that it will provide fundamentally new information about the peculiarities of dialects of Uralic languages in past centuries.

#### **List of abbreviations**

Udm. - Udmurt  
PP — Proto-Permyak  
mar. — Mariysk  
PU — Proto-Uralic Komi  
vish. — Vishersk  
eav. — Eastern Vychegod  
yuz. — Yuzovsk  
us. — Upper Syslovsk  
fin. — Finnish  
ky. — Komi-Yazva  
FP — Finno-Permyak  
FU — Finno-Ugric



**Bibliography**

- [1]. Kelmakov V.K. A Brief Course in Udmurt Dialectology: Introduction. Phonetics. Morphology. Dialect Texts. Bibliography. Izhevsk, 1998.
- [2]. Lytkin V.I. Komi-Yazvinsky Dialect. Moscow, 1961.
- [3]. Lytkin V.I. Historical Vowel System of Permian Languages. Moscow, 1964.
- [4]. Lytkin V.I., Gulyaev E.S. Etymological Dictionary of the Komi Language. Moscow, 1970.
- [5]. Miller G.F. Description of the Pagan Peoples Living in the Kazan Province, Such as Cheremis, Chuvash, and Votyaks... (reprint of the 1791 edition): For the 300th anniversary of G.F. Miller's birth // G.F. Miller and the Study of Uralic Peoples (round table materials) / Ed. Helimski E. Hamburg, 2005.
- [6]. Nasibullin R.Sh. Observations on the Language of the Krasnoufimsk Udmurts // On the Dialects and Speeches of the Southern Udmurt Dialect. Izhevsk, 1978.
- [7]. Nasibullin R.Sh. Udmurt Dialects - An Ideal Object for Linguogeographic Research // Studia geographiam linguarum pertinentia. Eesti keele instituudi toimetused, 6. Tallinn, 2000.
- [8]. Normanskaja J.V. Reconstruction of Proto-Finnic-Volgaic Stress. Moscow, 2008.
- [9]. Normanskaja J.V. 2018 Reconstruction of the Proto-Uralic paradigmatic accent and its influence on the development of vocalism. Moscow, 2018.
- [10]. Tepyashina T.I. Monuments of Udmurt Writing of the 18th Century. Moscow, 1965.
- [11]. Haizenberg A.R. Animal Names in the Komi Language // Keel ja Kirjandus. Tallinn. 1973, 8.
- [12]. Csúcs S. An 18th Century Votyak Language Monument // Nyelvtudományi Közlemények. 1983, 2 (85). Pp. 311—320.
- [13]. Geisler M. Vowel Zero Alternation, Syncope, and Accent in the Permian Languages. Wiesbaden, 2005.
- [14]. Sammallahti P. Historical Phonology of the Uralic Languages // The Uralic Languages: Description, History, and Foreign Influences. Brill, 1988.
- [15]. Winkler E. On the Göttingen Vocabulary of Siberian Languages // Journal de la Société Finno-Ougrienne. 1997, 87. Pp. 281—308.
- [16]. Wichmann Y. Wotyak Vocabulary / Recorded by Wichmann Y., edited by Uotila T.E., Korhonen M., edited by Korhonen M. Helsinki, 1987 (Lexica Societatis Fenno-Ugricae, XXI).