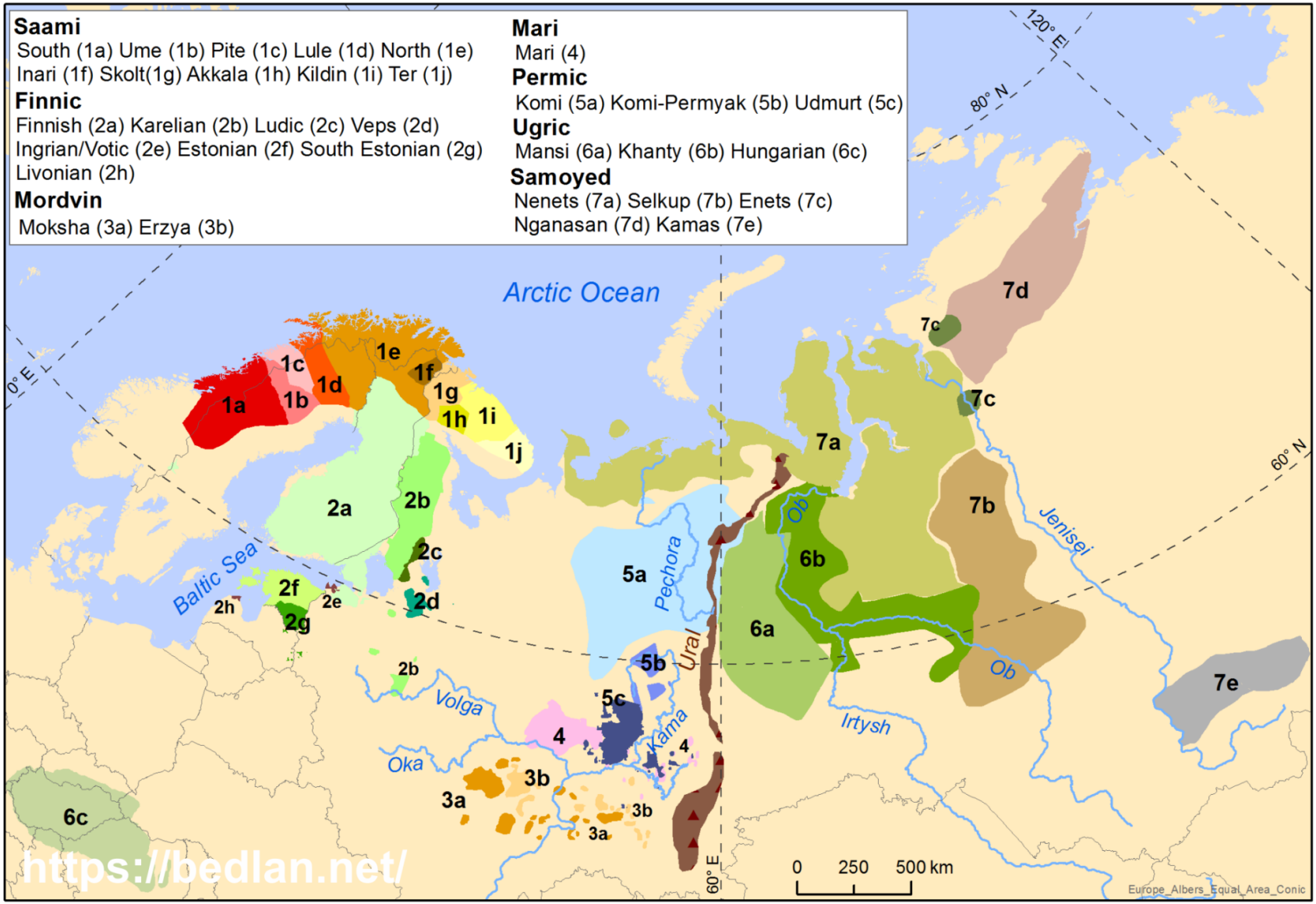
Phonology of Uralic: the introduction

Sasha Shikunova

HSE University (Moscow)

EGG 2023, last updated July 31, 2023


Saami
South (1a) Ume (1b) Pite (1c) Lule (1d) North (1e)
Inari (1f) Skolt(1g) Akkala (1h) Kildin (1i) Ter (1j)
Finnic
Finnish (2a) Karelian (2b) Ludic (2c) Veps (2d)
Ingrian/Votic (2e) Estonian (2f) South Estonian (2g)
Livonian (2h)
Mordvin
Moksha (3a) Erzya (3b)
Mari
Mari (4)
Permic
Komi (5a) Komi-Permyak (5b) Udmurt (5c)
Ugric
Mansi (6a) Khanty (6b) Hungarian (6c)
Samoyed
Nenets (7a) Selkup (7b) Enets (7c)
Nganasan (7d) Kamas (7e)
Arctic Ocean
Baltic Sea
Pechora
Ural
Ob
Jenisei
Irtysh
Volga
Oka
Kama
0° E
60° E
120° E
80° N
60° N
0
250
500 km
Europe_Albers_Equal_Area_Conic
https://bedlan.net/

Uralic family

- 42 languages, according to Ethnologue
- Spoken by approximately 25 million people [source]
- Largest language is Hungarian ($\sim$17 mil), a lot of minority languages on different levels of endangerement
- Branches that can be uncontroversially established (Salminen 2002)
  - Finnic
  - Mari
  - Mordvin
  - Permian
  - Sami
  - Samoyed
  - Hungarian, Khanty, Mansi

Branches of Uralic

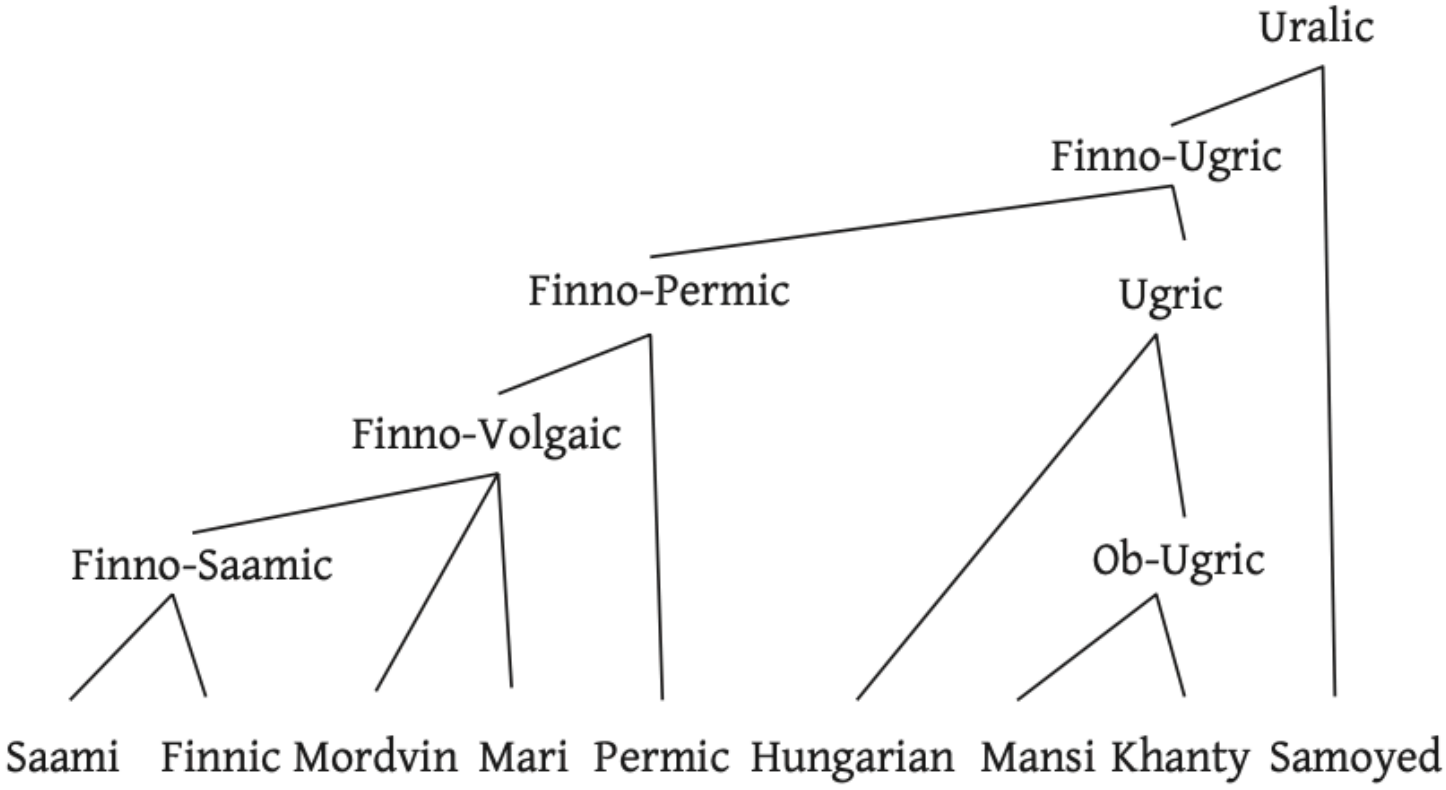


Figure 1.2 The taxonomical structure of the Uralic language family according to the view commonly held until the 1980s, but now widely contested

(Aikio 2022)

Branches of Uralic

- Finnic, Mari, Mordvin, Permian and Sami languages, together with Hungarian, Khanty and Mansi
- “To sum up the phonological and other evidence for the alleged proto-languages between Proto-Uralic and the level of the basic branches, it can be stated that there is very little of it” (Salminen 2002)

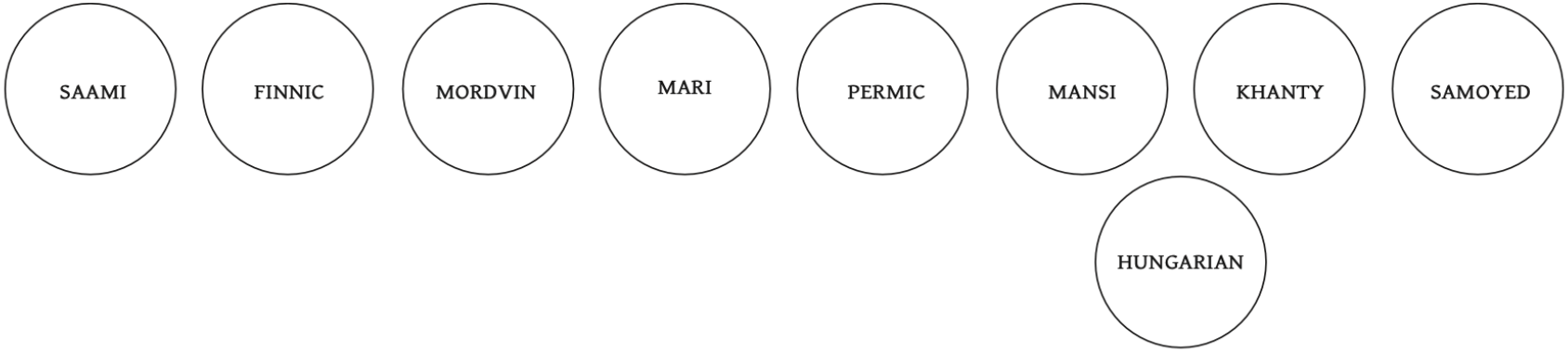


Figure 1.1 The branches of the Uralic family in an approximate geographical order along the east-west axis
Slightly modified from Salminen (1999: 20)

(Aikio 2022)

Sa(a)mi

- Several Saami languages are now spoken in Norway, Sweden, Finland
  North (the biggest of all), South, Inari, Skolt
- Only one Saami language left in Russian Federation – Kildin Saami

Most notable common features:

- Trochaic stress with unstressable final syllables
- Complex vowel quality alternations (historically explicable)

(1) Kildin Saami vowel alternation (Kert 1971)

a.	*jel′l′e*	‘to live’
b.	*jaλa*	‘live.PRS.1SG’
c.	*jil′l′e*	‘live.IMPF.1SG’

- Consonant gradation

Finnic

- Spoken in Finland, Estonia, North-West Russia and Latvia
- A lot of consonant gradation

(2) Finnish consonant gradation (quantitative; semi-productive)

a. *pappi* ‘priest’ : *papit* ‘priests’

b. *lobbaan* : *lobata* ‘to lobby’

(3) Karelian consonant gradation (qualitative;)

a. *ukko* ‘old man.NOM’ : *ukon* ‘old man.GEN’

b. *voassa* ‘bear.NOM’ : *voasan* ‘bear.GEN’

- Trochaic stress, primary stress on the first syllable, final syllable unstressed

Finnic

Examples from Karelian (Kovedjaeva 1993a)

- Vowel harmony

(4) a. *kala* ‘fish’

b. *n’ägö* ‘face’

- Vowel length contrast

(5) a. *tuul’i* ‘wind’

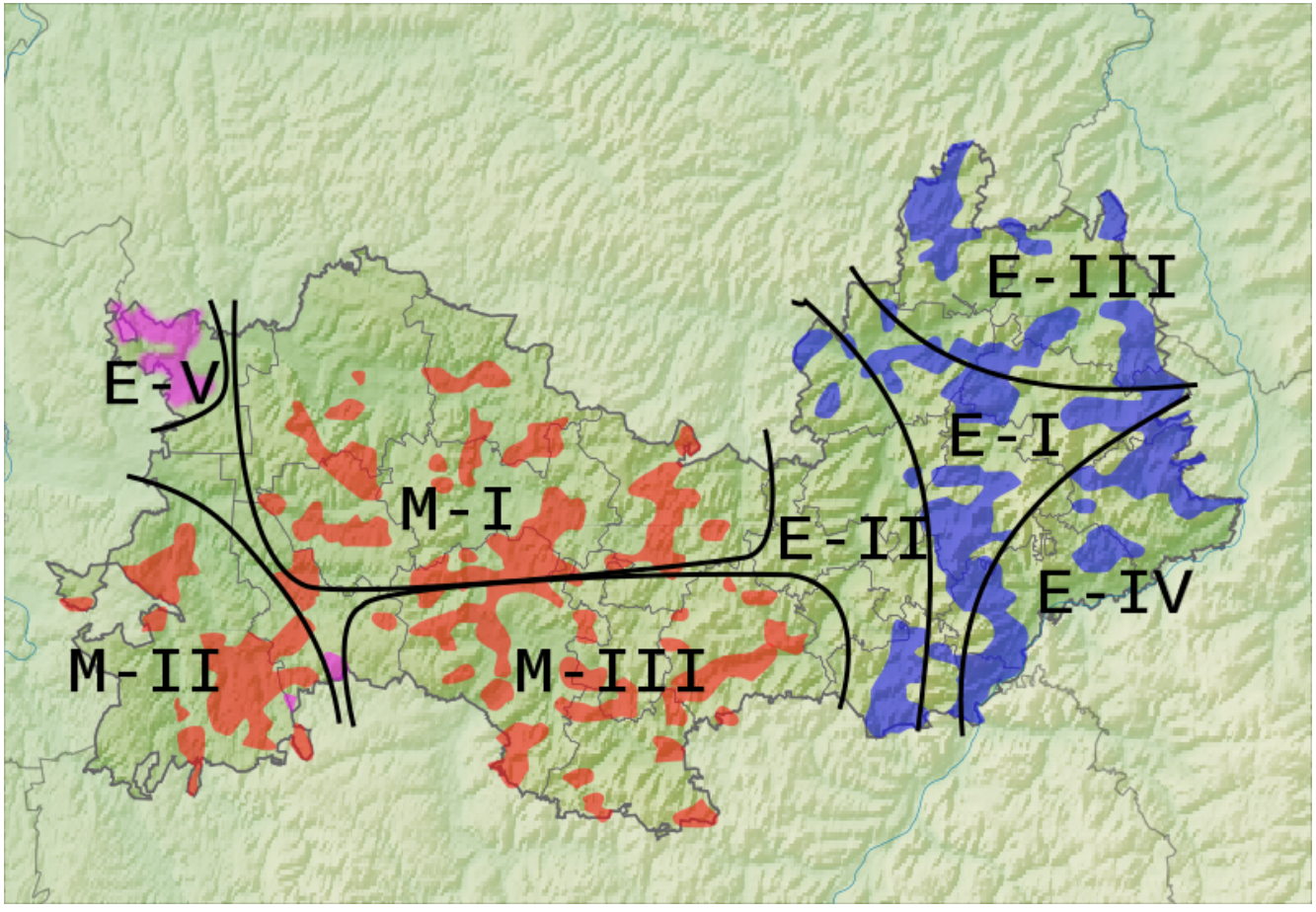
b. *tul’i* ‘fire’

Mordvin

- Spoken in the Mordovia republic and neighbouring regions, European part of Russia

Mordvin

- Moksha and Erzya languages; divided into smaller dialects
- Endangered but supported



Mordvin

In the Moksha language, as described in (Toldova & Kholodilova 2018):

- Contrastive palatalisation

(6) *mar – mar’* ‘pile’ – ‘apple’

- Contrastive voicing, in sonorants as well (Moksha only)

(7) *ĸal – ĸaḷ-n’ə – ĸal-n’e* ‘fish’ – ‘fish-PL’ – ‘fish-1SG.POSS.PL’

- Initial stress, shifted depending on vowel quality:

(8) a. *ĸáḷn’ə* (initial default) ‘fish.DEF.PL’

b. *kuvákə* (non-initial shifted) ‘long’

Mordvin

≫ Heaviest possible syllable structure: CCCVCCCC

(9) Moksha consonant clusters

a.	CCCVCCCC: *kšt'ər'fc't'*	'spin.CAUS.PST.3PL'
b.	CCCVCCC: *kstikst*	'berry garden.PL'
c.	CCVCCCC: *bratksc'*	'fraternise.PST.3SG'

≫ Vowel hiatus is prohibited

(10) Glide insertion in vowel hiatus

a.	*mu* + *an* → *mu-jan*	'find-1SG'
b.	*jožu* + *an* → *jožu-van*	'smart-1SG'

Mari

- Mari languages: Meadow Mari and Hill Mari
- Spoken in the European part of Russia

Mari

≫ Exception from the regular Uralic trochaic stress pattern

(11) Penultimate stress is prevalent in Hill Mari (Krasnova et al. 2017)

a. *l**ə̂**d-aš* ‘read-INF’

b. *lə̂d-**ə̂**kt-aš* ‘read-CAUS.DST-INF’

c. *lə̂d-ə̂kt-**a**l-aš* ‘read-CAUS.DST-ATT-INF’

≫ Stress can be contrastive and sometimes has to be lexically encoded

(12) Contrastive stress in Mari (Kovedjaeva 1993b)

a. *šérɣe* ‘dear’

b. *šeryé* ‘comb’

Mari

≫ Vowel harmony in Hill Mari

(13) Front vowels only after front vowels

a. *arava* ‘wagon, wheel’

b. *ävä* ‘mother’

(14) Non-front vowels only after non-front vowels

a. *mond-en-äm* ‘forget-PRET-1SG’

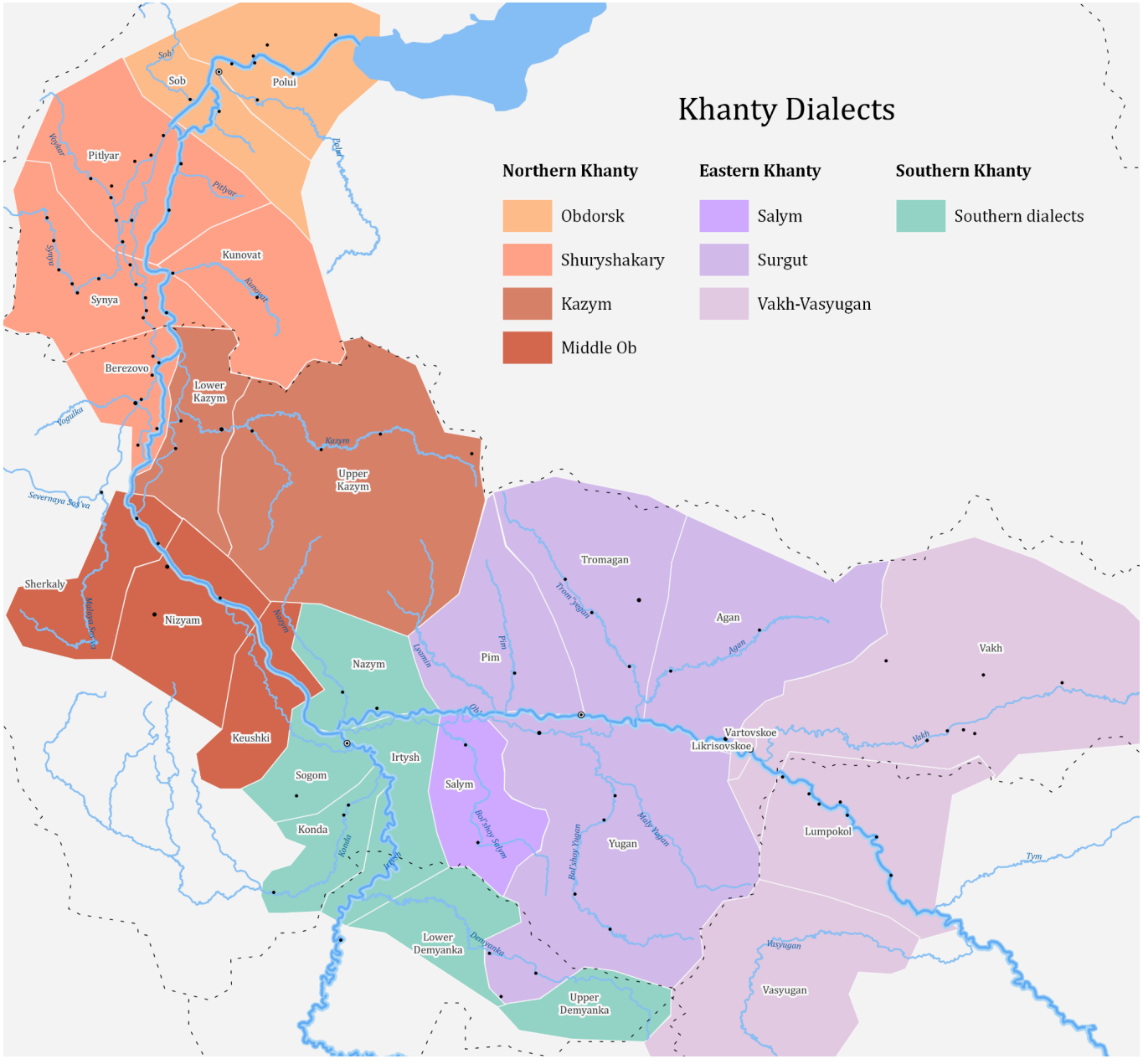
b. *âl-ân-am* ‘be-PRET-1SG’

≫ Free distribution only in initial syllables

Khanty

- Spoken in Khanty-Mansi and Yamalo-Nenets okrugs (Western Siberia; Kh-M on the map)
- Significant variation between dialects
- Traditional occupations: fishing, reindeer herding and hunting

Khanty dialects



Khanty

- ≫ Voiceless fricative [ɬ] typed as /λ/
- ≫ No voicing contrast in stops

(15) Russian loanwords in Kazym Khanty

a. *danila* (Rus) → *tańλa* (Kh) (Daniel)

b. *grigorij* (Rus) → *kirkər* (Kh) (Gregory)

- ≫ (C)V(C)(C) syllable structure

(16) Epenthesis to rescue initial clusters in Kazym Khanty

a. *knižka* (Rus) → *kinška* (Kh) ‘book’

b. *škola* (Rus) → *aškola* (Kh) ‘school’

Khanty

- Schwa is subject to vowel-zero alternations in some morphemes

(17) Surface realisations of the suffix *-əmən* ‘1DU’

a. *orət-λ-əmn* ‘drag-NPST-1DU’

b. *pərλə-s-mən* ‘soar-PST-1DU’

- Trochaic stress

(18) Khanty stress pattern

a. *ˈλaraś* *λaraś* ‘box’

b. *ˈλaraˈśɛma* *λaraś-ɛm-a* ‘box-POSS.1SG-DAT’

c. *ˈλaraśa* *λaraś-a* ‘box-DAT’

Samoyed

- Samoyed languages: Nganasan, Enets, Nenets, Selkup
- Nenets languages: Tundra Nenets (TN) and Forest Nenets (FN)
- Yamal-Nenets okrug on the map

Nenets

In Nenets, as described by Sammallahti (1974), Salminen (2007), Burkova (2022):

- Contrastive vowel length in FN

(19) *kăta – kata* ‘fingernail’ – ‘grandmother’

- Only preserved in stressed syllables
- Over-short vowel schwa, occasionally exponed suprasegmentally

(20) Schwa in FN – /°/

a. *ka-λ°* [kaλĭ] ‘ear-POSS.2SG’

b. *kăλ°* [kăλλ] ‘knife’

c. *kin’iw°* [kin’íw] ‘cat’

Nenets

- No voicing contrast in consonants
- Contrastive palatalisation (examples from FN)

(21) a. *pǎj°* – *pʼaj* ‘crooked’ – ‘wooden’

b. *tǐ* – *čiλ°* ‘reindeer’ – ‘cloud’

- Occasional consonant gradation effects in FN

(22) Forest Nenets durative (Salminen 2007: p. 359)

a. *kata-pʼo-* ‘kill-DUR’

b. *ta-mʼpʼo-* ‘bring-DUR’

Nenets

≫ Vowel harmony in VxV contexts

(23) FN /a ă °/ subject to vowel harmony

a. *tŏ* + *xăna* → *toxona* ‘lake-LOC’

b. *d’iλ’i* + *xăna* → *d’iλ’ixina* ‘month-LOC’

≫ Basic syllable structure is CV(C)

≫ Trochaic non-final stress

(24) TN stress pattern

a. *tataŋata* [ˈta.ta.ˈŋa.ta] ‘he’s exchanging’

b. *wed’aʔku* [ˈwe.d’aʰ.ku] ‘dog’

Characteristic features of Uralic

Vowel systems:

- Contrastive vowel length
- Vowel harmony (Hungarian, Mari, Samoyed)
- Phonologically contrastive tone is not observed

Consonants:

- Contrastive palatalisation (Saami, Khanty, Moksha, Nenets; lost in Finnic)
- Occasionally lacking contrastive voicing; curious interaction with Russian
- A range of possible consonant clusters: from almost none (Khanty, Nenets) to really big (Moksha)

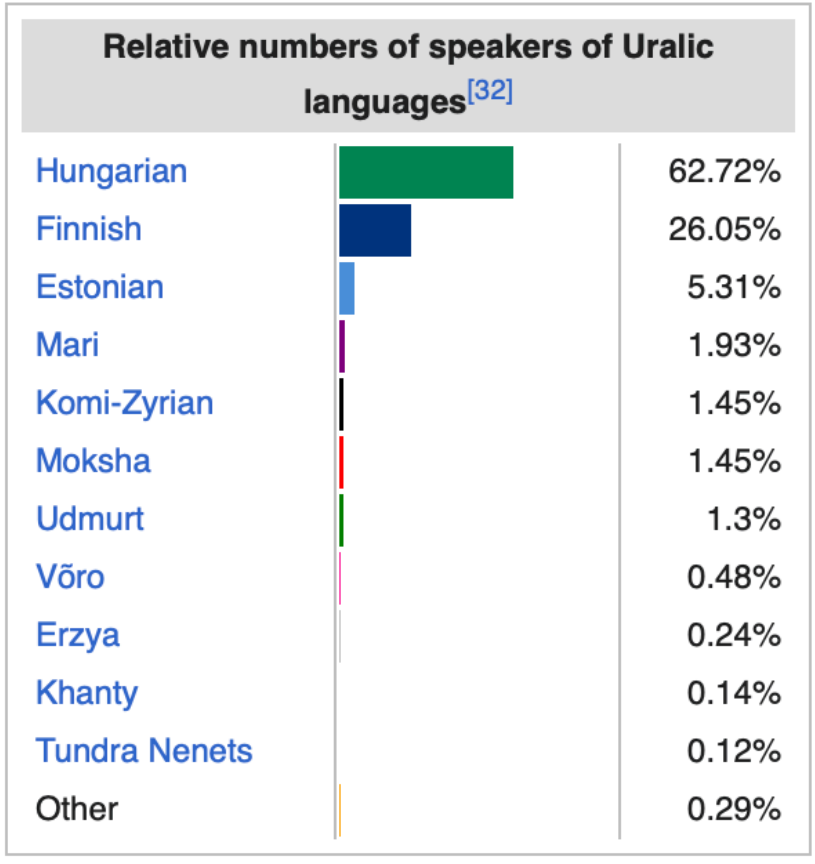
Characteristic features of Uralic

Stress patterns:

- Initial primary stress, secondary stress on odd non-final syllables
- Affected by vowel quality in Moksha
- Interacts with vowel-zero alternations in Khanty and Forest Nenets
- Lexical accent in Mari
- Phonologically contrastive tone is not observed

Characteristic features of Uralic

- Most Uralic languages are endangered
- Wikipedia chart based on Russia (2010) and EU (2012 and comparable dates) censuses



Roadmap

	Languages	**Topics**
Tuesday	Finnish, Estonian, Saami	Consonant gradation
Wednesday	Moksha	Hiatus resolution, stress
Thursday	Khanty (Kazym d.)	Vowel-zero alternations, stress
Friday	Forest Nenets (Pur d.)	Vowel length, stress, schwa, consonant gradation, vowel harmony

Phonological framework

- Analyses will be couched in Strict CV
- Before a theoretical analysis, framework-free generalisations will be established
- Materials available:
  - [datasets]
  - [last week's class handouts]

References I

- Aikio, Ante. 2022. Proto-Uralic. In Marianne Bakró-Nagy, Johanna Laakso & Elena Skribnik (eds.), *The oxford guide to the Uralic languages*, 3–27. Oxford: Oxford University Press.
- Burkova, Svetlana. 2022. Nenets. In Marianne Bakró-Nagy, Johanna Laakso & Elena Skribnik (eds.), *The oxford guide to the Uralic languages*, 674–708. Oxford: Oxford University Press.
- Kert, Georgij Martynovič. 1971. Saamskij jazyk (kil'dinskij dialekt): fonetika, morfologija, sintaksis [The Saami language (Kildin dialect): phonetics, morphology, syntax].
- Kovedjaeva, Evgenija Ivanovna. 1993a. Karel'skij jazyk [The Karelian language]. 63–75.
- Kovedjaeva, Evgenija Ivanovna. 1993b. Marijskij jazyk [The Mari (Cheremis) language]. 148–163.
- Krasnova, Nadezhda et al. 2017. *Reading Hill Mari through Meadow Mari*. Vienna: University of Vienna & the Ludwig Maximilian University of Munich.

References II

- Salminen, Tapani. 2002. Problems in the taxonomy of the Uralic languages in the light of modern comparative studies. In *Lingvističeskij bespredel. Sbornik statej k 70-letiju A. I. Kuznecovoj [Linguistic mayhem. Festschrift for A. I. Kuznecova on the occasion ofS her 70th birthday]*, 44–55. Moscow: Izdatel'stvo Moskovskogo universiteta.
- Salminen, Tapani. 2007. Notes on Forest Nenets phonology. In Jussi Ylikoski & Ante Aikio (eds.), *Sámit, sánit, sátnehámit. riepmočála pekka sammallahtii miessemánu 21. beaivve 2007. suomalais-ugrilaisen seuran toimituksia = mémoires de la société finno-ougrienne*, vol. 253, 349–372. Helsinki: Suomalais-Ugrilainen Seura.
- Sammallahti, Pekka. 1974. *Material from Forest Nenets*. Helsinki: Castrenianum.
- Toldova, Svetlana & Maria Kholodilova (eds.). 2018. *Èlementy mokšanskogo jazyka v tipologičeskom osveščenii [Elements of the Moksha language in a typological perspective]*. Moscow: Buki Vedi.