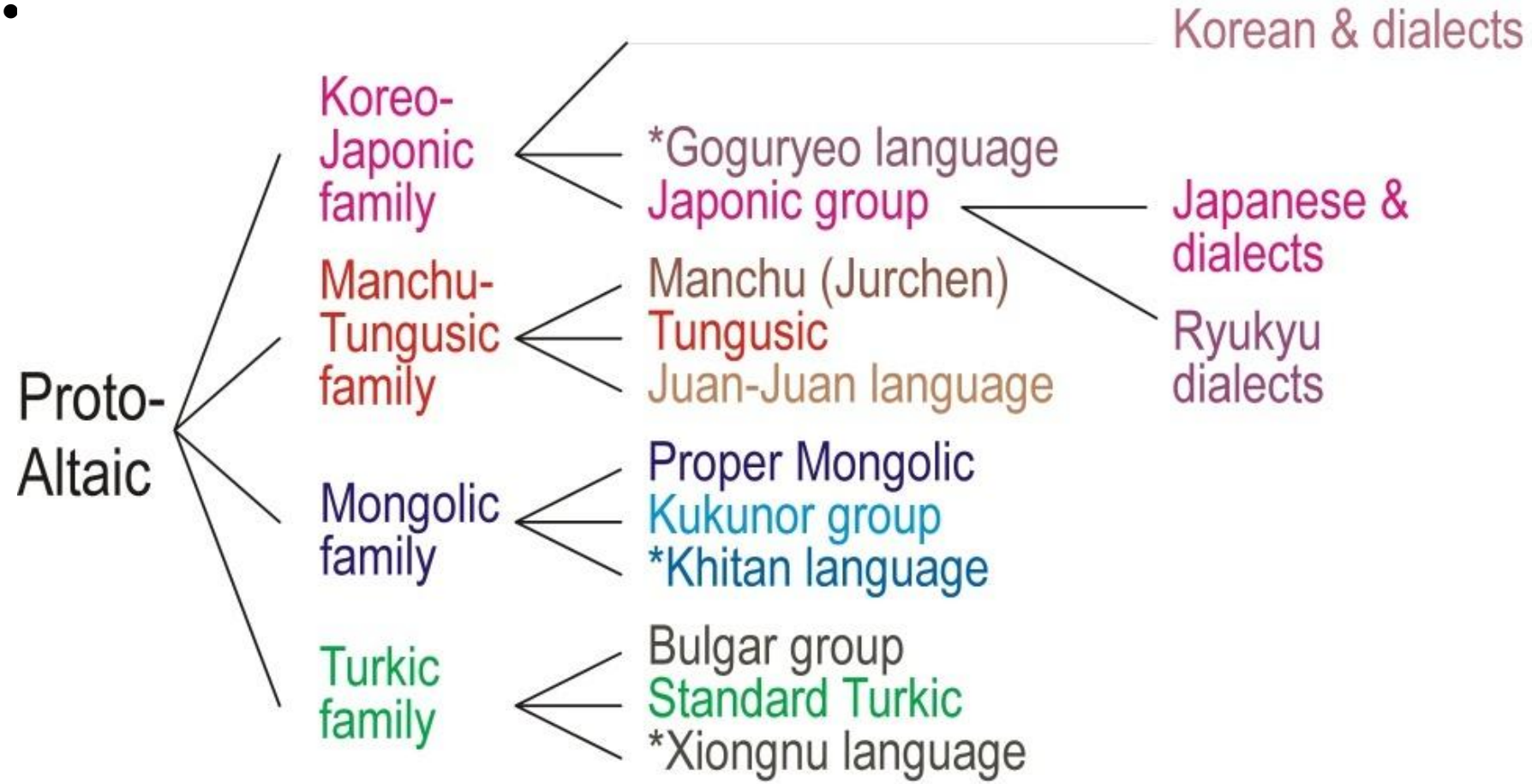
Altaic linguistics and mythology: geography or relationship?

A. Dybo (IL RAS, Moscow),
E. Korovina (IL RAS, Moscow)

- The genealogical tree of the Altaic language family according the recent researches
-



- Dating by methods of classical comparative-historical linguistics:
- Written sources
- Data of linguistic contacts
- Data of cultural reconstructions
-
- An example:
- Dating of the divergence of Proto-Turkic language by loan-words from Chinese

Late Old Chinese borrowings in Proto-Turkic

- 1. **(a)lačᴜ-k* ‘cottage, small yurt’: LOCh. *la-λiaʔ* ‘cottage’ 廬 舍
- 2. **gümüλ* ‘silver’: LOCh. **kəm-liw* 金 鐐, ‘bright silver’
- 3. **Tẹmür* ‘iron’: LOCh **tiēt-mhwit (= mwut)* ‘iron thing’,dial. *Tiēr-mwur* 鐵 物
- 4. **könüg suv* ‘quicksilver’: LOCh **köuŋ* 汞 ‘quicksilver’
- 5. **bẹ̀k* ‘a nobility rank’ : LOCh *pẹ̄k* 伯 ‘to be elder’
- 6. **čerig* ‘army’, originally ‘army formation': LOCh *cjāt,dial. cjār* 節 ‘knie; detachement’
- 7. **sü* ‘army: LOCh **śwò* 戍 ‘frontier guards’
- 8. **biti-* ‘write’: LOCh *pit*: 筆 ‘writing brush’
- 9.* *kujn* ‘scroll, book’: LOCh *kwén* 卷 ‘reel, coil, volume’

- 10. **bengü* ‘eternal’: LOCh *mwən̄* ‘be ten-thousand, myriad’ 萬 + LOCh 古 *kó́* ‘be ancient’
- 11. **čin* ‘verity’: LOCh 貞 *tʻeŋ* ‘to test, try out, correct’
- 12. **deng* ‘equal’ : LOCh 等 *təŋʔ* ‘equal’
- 13. **kög* ‘tune’ : LOCh曲 *khok* ‘melody’
- 14. **sïr* ‘color, dye, lacque’ : LOCh 漆 *shjit* ‘lacquer tree, lacquer (*Rhus vernicuflua*)’
- 15. **jinčü* ‘pearls’ : LOCh 真 *ćin* ‘true’ + 珠 *ćwo* ‘pearls’
- 16. **čavlï* ‘a species of falcon’ : LOCh 鷂 *źawh* ‘sparrow hawk (*Accipiter nisus*)’
- 17. **Turma* ‘radish, horseradish' : LOCh 土卵 *thārhwān* ‘yam' (lit. “earthen egg")

- The reconstruction of the phonetic history of Chinese: S.A.Starostin 1989, W.Baxter 1992.
- The processes in Old Chinese that permit to date the time of OCh borrowing in the PT:
- Laterals > fricatives, *Lh* > *źh* before short vowels: Eastern Han
- *T* > *ć* before short vowels: Eastern Han (0 – III cent. A.D.)
- L > D in initials: Early Postlassical Chinese (III cent. A.D.)
- *r, rh* > *l, lh*: Early Postlassical Chinese (III cent. A.D.)
- *pr-* > *p-* : Early Postlassical Chinese (III cent. A.D.)
- *Tr-* > retroflex stops: Western Han (III cent. B.C. – 0)
- *-r* > *-n*: Classical Old Chinese (VII cent. B.C. - III cent. B.C.)
- No processes later then EPCh
- Not before WCh
- Thus, III cent. B.C. – III cent. A.D.)

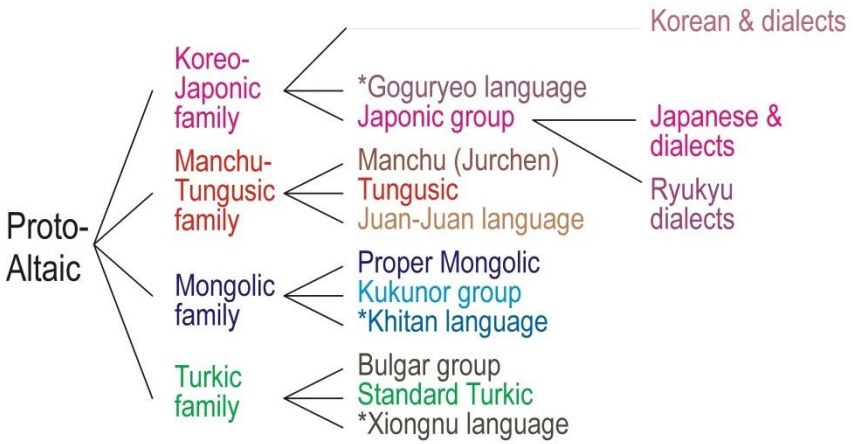
Linguistics: quantitative method

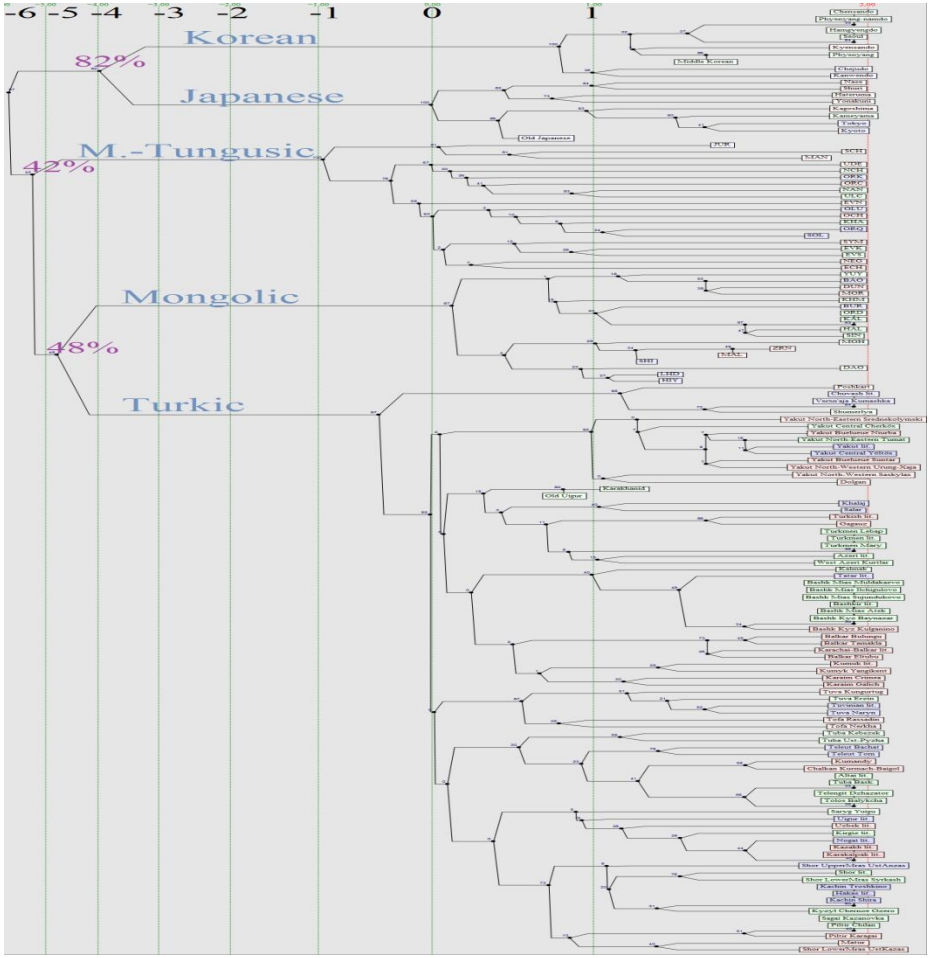
- **Type of data**: short Swadesh-like fixed wordlists, here – Swadesh list with the semantic specification (Kassian et al. 2010);
- **Source of data**: fieldwork, linguistic corpuses, dictionaries;
- **Methods**: distance-based and feature-based clustering, here – Starling NJ;
- **Problems**: statistical errors; What is the “golden standard”? How to avoid overtraining?

Sources

- 77 Turkic languages and dialects
- 20 Manchu-Tungusic languages and dialects
- 17 Mongolic languages and dialects
- 9 Korean dialects
- 9 Japanese dialects

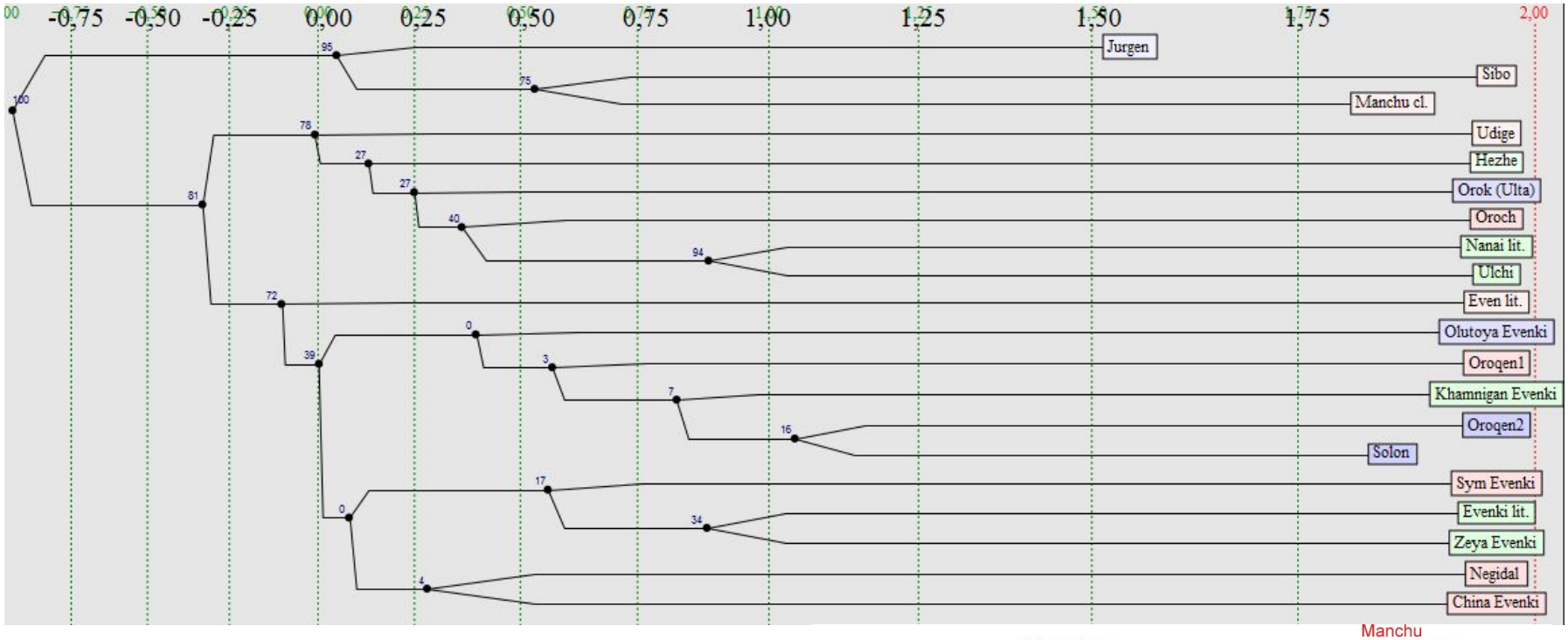
Altaic

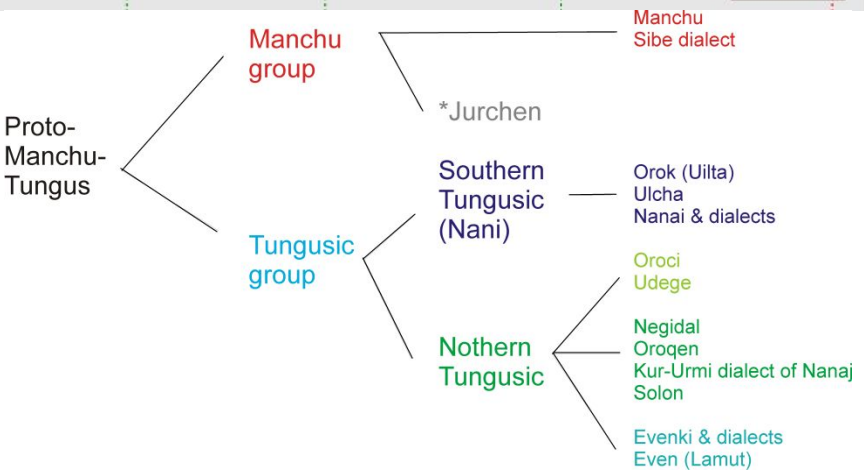

Proto-Altaic
Koreo-Japonic family
Manchu-Tungusic family
Mongolic family
Turkic family
Korean & dialects
*Goguryeo language
Japonic group
Japanese & dialects
Ryukyu dialects
Manchu (Jurchen)
Tungusic
Juan-Juan language
Proper Mongolic
Kukunor group
*Khitan language
Bulgar group
Standard Turkic
*Xiongnu language


-6 -5 -4 -3 -2 -1 0 1
Korean
82%
Japanese
M.-Tungusic
42%
Mongolic
48%
Turkic

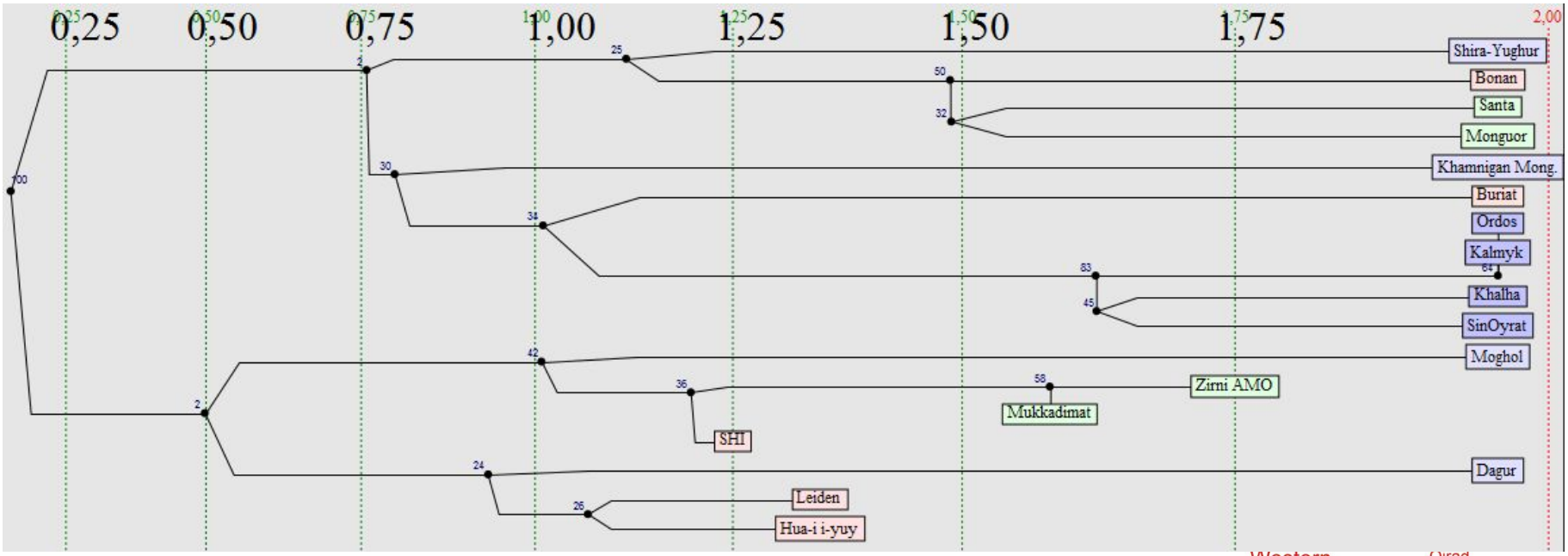
	Turkic	Mongolic	Tungusic	Korean	Japanese
Turkic	>56	~18	~13	~14	~14
Mongolic	~18	>82	~16	~14	~14
Tungusic	~13	~16	>46	~15	~12
Korean	~14	~14	~15	>91	~24
Japanese	~14	~14	~12	~24	>74

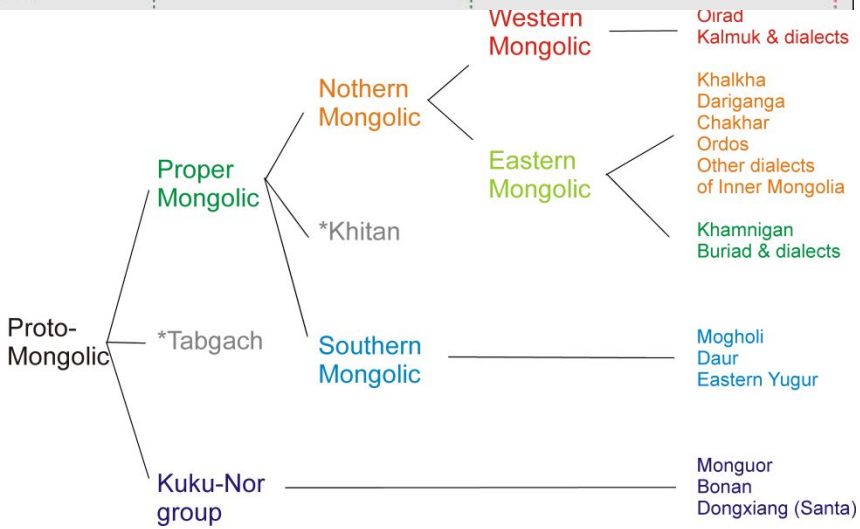
Tungusic


-0,75
-0,50
-0,25
0,00
0,25
0,50
0,75
1,00
1,25
1,50
1,75
2,00
Jurgen
Sibo
Manchu cl.
Udige
Hezhe
Orok (Ulta)
Oroch
Nanai lit.
Ulchi
Even lit.
Olutoya Evenki
Oroqen1
Khamnigan Evenki
Oroqen2
Solon
Sym Evenki
Evenki lit.
Zeya Evenki
Negidal
China Evenki

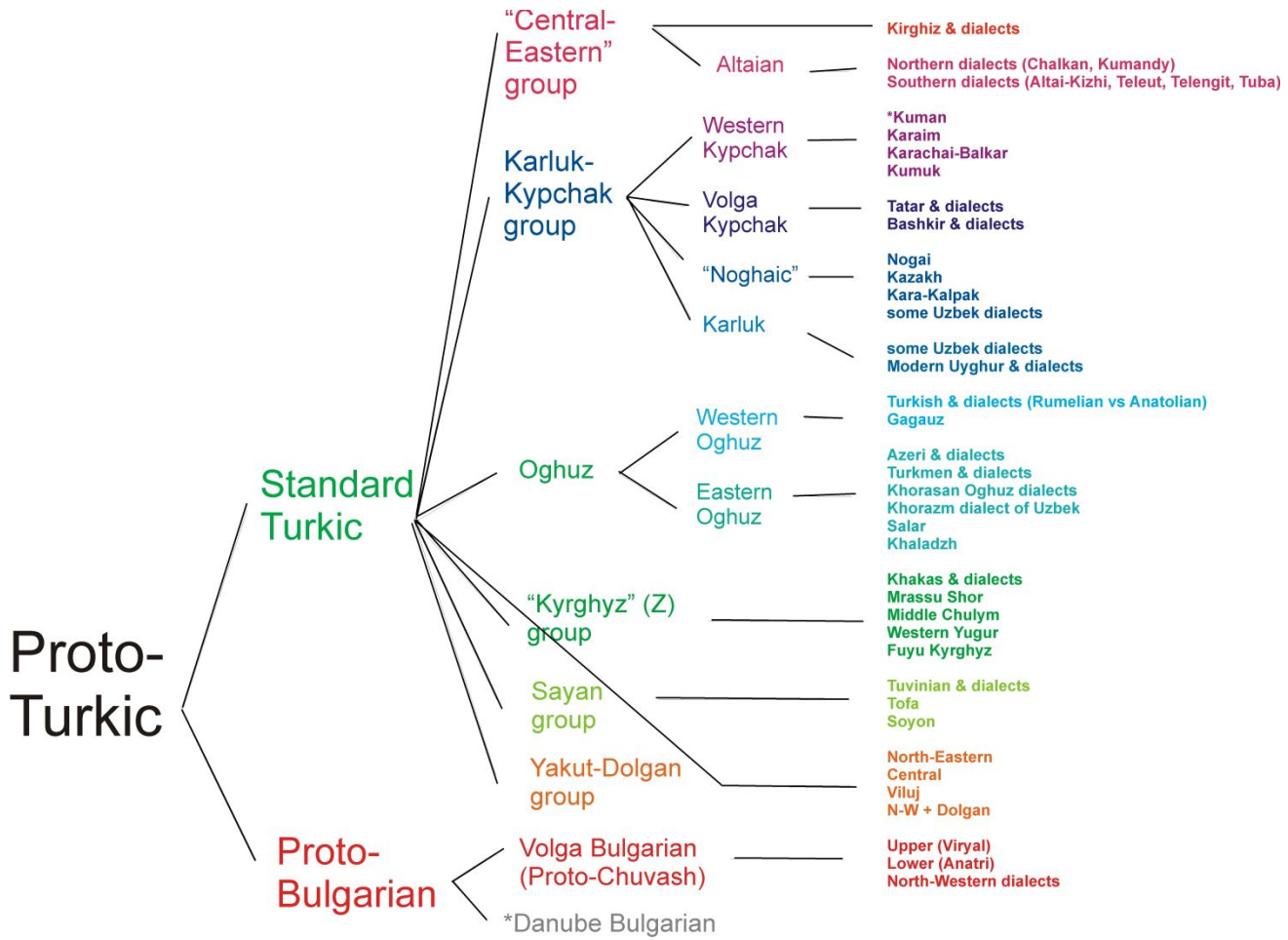

Proto-Manchu-Tungus
Manchu group
Manchu
Sibe dialect
*Jurchen
Tungusic group
Southern Tungusic (Nani)
Orok (Uilta)
Ulcha
Nanai & dialects
Nothern Tungusic
Oroci
Udege
Negidal
Oroqen
Kur-Urmi dialect of Nanaj
Solon
Evenki & dialects
Even (Lamut)

Mongolic

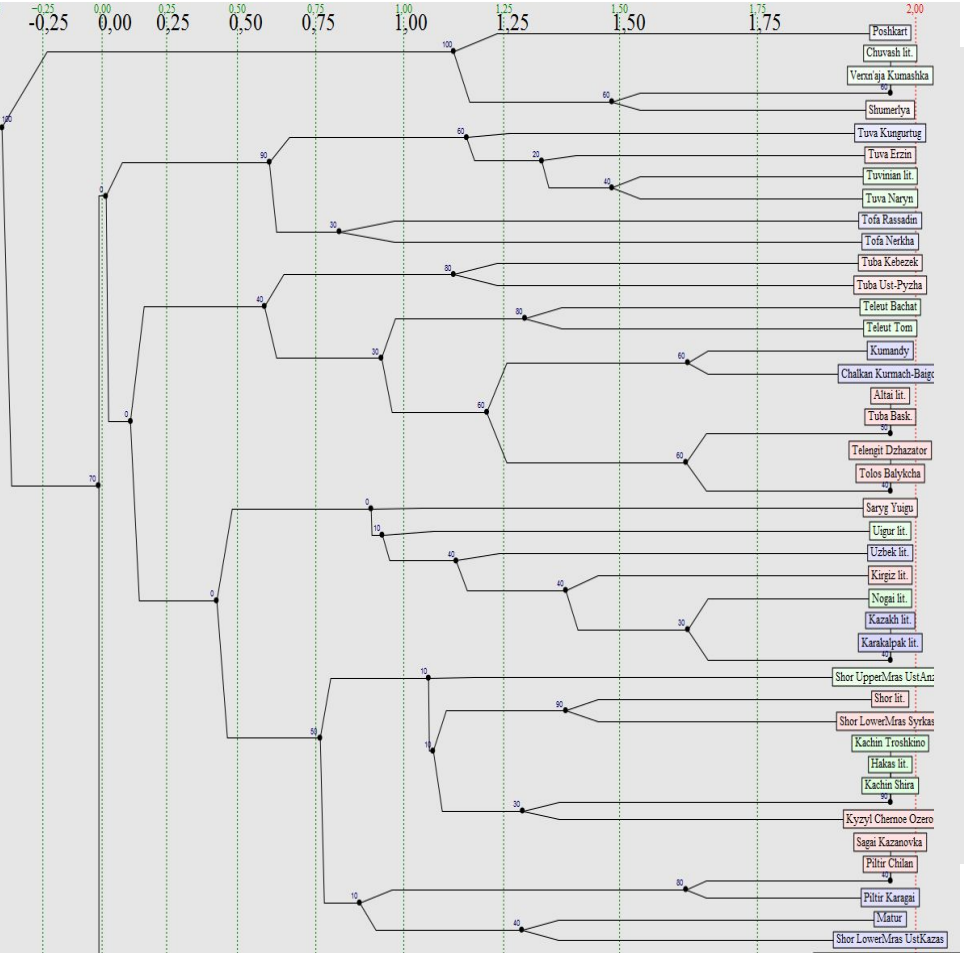

0,25
0,50
0,75
1,00
1,25
1,50
1,75
2,00
Shira-Yughur
Bonan
Santa
Monguor
Khamnigan Mong.
Buriat
Ordos
Kalmyk
Khalha
SinOyrat
Moghol
Zirni AMO
Mukkadimat
SHI
Dagur
Leiden
Hua-i i-yuy

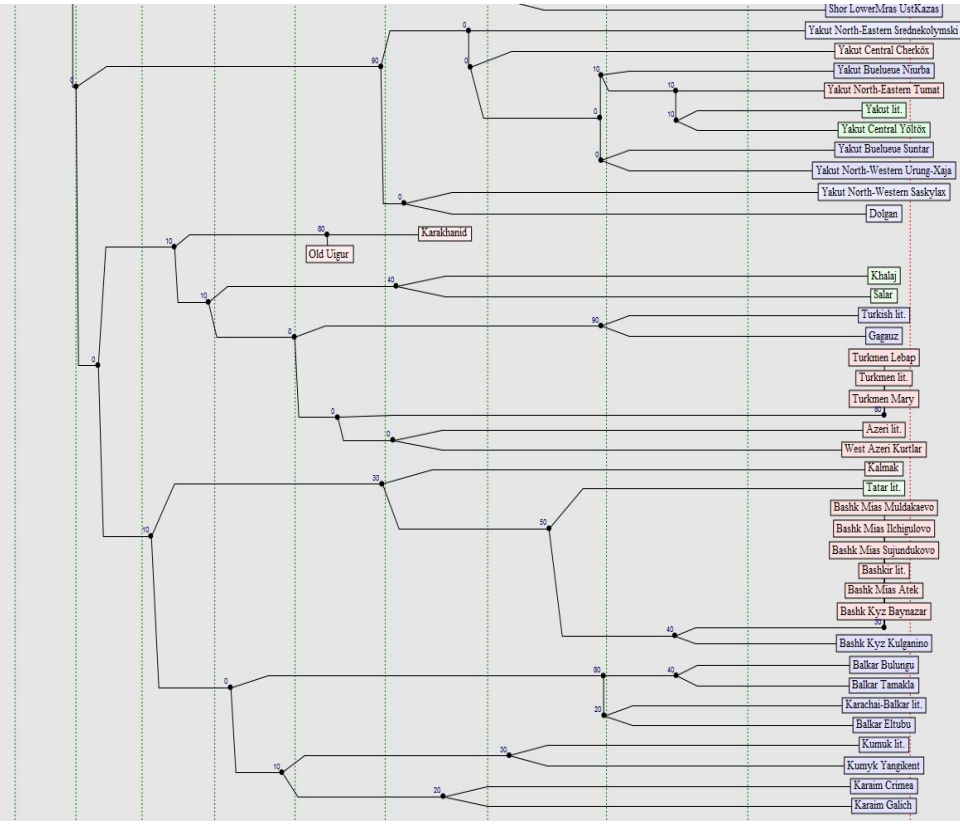

Proto-Mongolic
Proper Mongolic
*Tabgach
Kuku-Nor group
Nothern Mongolic
*Khitan
Southern Mongolic
Western Mongolic
Eastern Mongolic
Oirad
Kalmuk & dialects
Khalkha
Dariganga
Chakhar
Ordos
Other dialects of Inner Mongolia
Khamnigan
Buriad & dialects
Mogholi
Daur
Eastern Yugur
Monguor
Bonan
Dongxiang (Santa)

Turkic


Proto-Turkic
Standard Turkic
Proto-Bulgarian
"Central-Eastern" group
Karluk-Kypchak group
Oghuz
"Kyrghyz" (Z) group
Sayan group
Yakut-Dolgan group
Volga Bulgarian (Proto-Chuvash)
*Danube Bulgarian
Altaian
Western Kypchak
Volga Kypchak
"Noghaic"
Karluk
Western Oghuz
Eastern Oghuz
Kirghiz & dialects
Northern dialects (Chalkan, Kumandy)
Southern dialects (Altai-Kizhi, Teleut, Telengit, Tuba)
*Kuman
Karaim
Karachai-Balkar
Kumuk
Tatar & dialects
Bashkir & dialects
Nogai
Kazakh
Kara-Kalpak
some Uzbek dialects
some Uzbek dialects
Modern Uyghur & dialects
Turkish & dialects (Rumelian vs Anatolian)
Gagauz
Azeri & dialects
Turkmen & dialects
Khorasan Oghuz dialects
Khorazm dialect of Uzbek
Salar
Khaladzh
Khakas & dialects
Mrassu Shor
Middle Chulym
Western Yugur
Fuyu Kyrghyz
Tuvinian & dialects
Tofa
Soyon
North-Eastern
Central
Viluj
N-W + Dolgan
Upper (Viryal)
Lower (Anatri)
North-Western dialects

Turkic


-0,25
0,00
0,25
0,50
0,75
1,00
1,25
1,50
1,75
2,00
Poshkart
Chuvash lit.
Verxn'aja Kumashka
Shumerlya
Tuva Kungurtug
Tuva Erzin
Tuvinian lit.
Tuva Naryn
Tofa Rassadin
Tofa Nerkha
Tuba Kebezek
Tuba Ust-Pyzha
Teleut Bachat
Teleut Tom
Kumandy
Chalkan Kurmach-Baig
Altai lit.
Tuba Bask.
Telengit Dzhazator
Tolos Balykcha
Saryg Yuigu
Uigur lit.
Uzbek lit.
Kirgiz lit.
Nogai lit.
Kazakh lit.
Karakalpak lit.
Shor UpperMras UstAn
Shor lit.
Shor LowerMras Syrkas
Kachin Troshkino
Hakas lit.
Kachin Shira
Kyzyl Chenoe Ozero
Sagai Kazanovka
Piltir Chilan
Piltir Karagai
Matur
Shor LowerMras UstKazas


Shor LowerMras UstKazas
Yakut North-Eastern Srednekolymski
Yakut Central Cherkox
Yakut Buelueue Niurba
Yakut North-Eastern Tumat
Yakut lit.
Yakut Central Yoltox
Yakut Buelueue Suntar
Yakut North-Western Urung-Xaja
Yakut North-Western Saskylax
Dolgan
Karakhanid
Old Uigur
Khalaj
Salar
Turkish lit.
Gagauz
Turkmen Lebap
Turkmen lit.
Turkmen Mary
Azeri lit.
West Azeri Kurtlar
Kalmak
Tatar lit.
Bashk Mias Muldakaevo
Bashk Mias Ilchigulovo
Bashk Mias Sujundukovo
Bashkir lit.
Bashk Mias Atek
Bashk Kyz Baynazar
Bashk Kyz Kulganino
Balkar Bulungu
Balkar Tamakla
Karachai-Balkar lit.
Balkar Elrubu
Kumuk lit.
Kumyk Yangikent
Karaim Crimea
Karaim Galich

TIME

present

1 ky BP

2 ky BP

3 ky BP

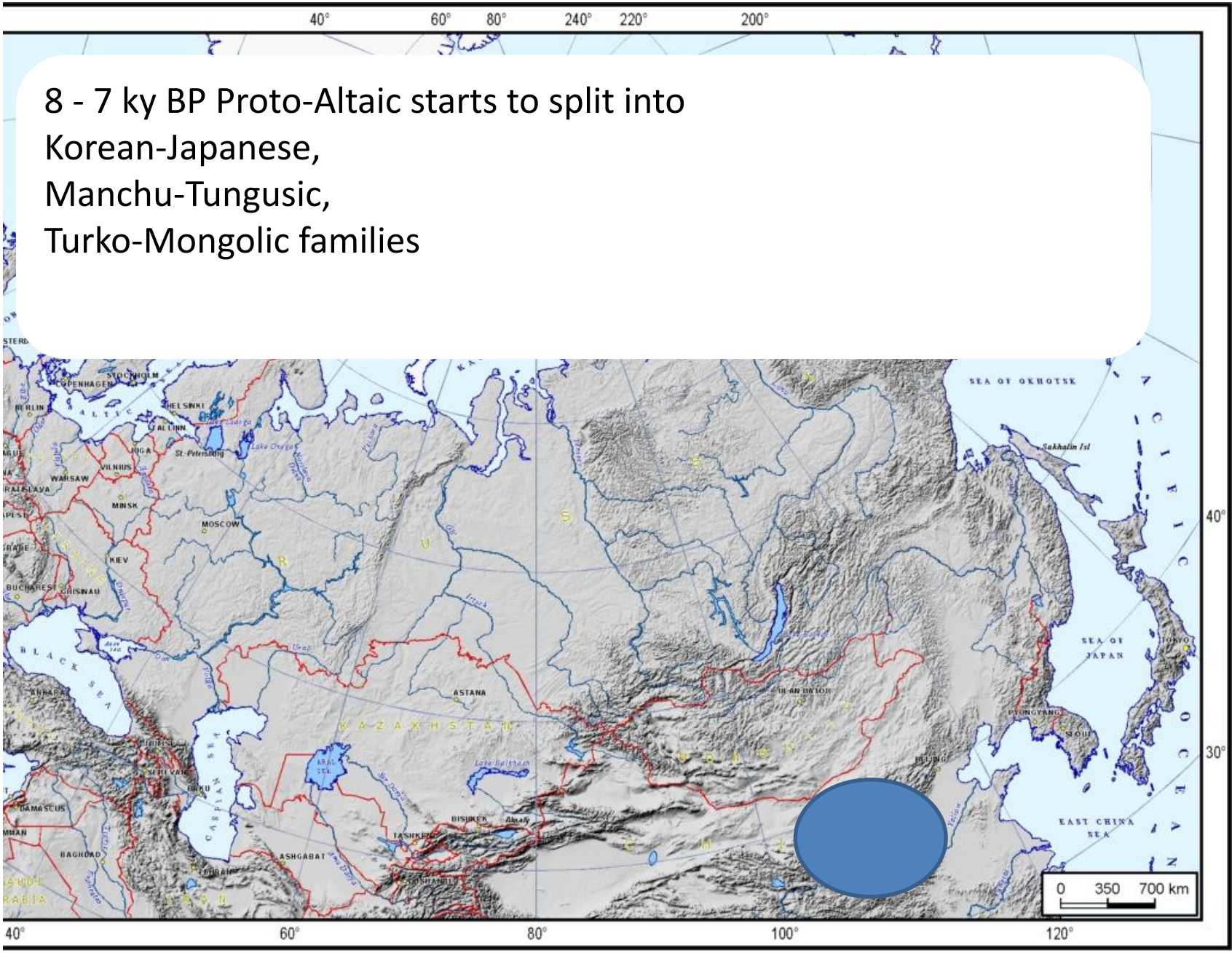
4 ky BP

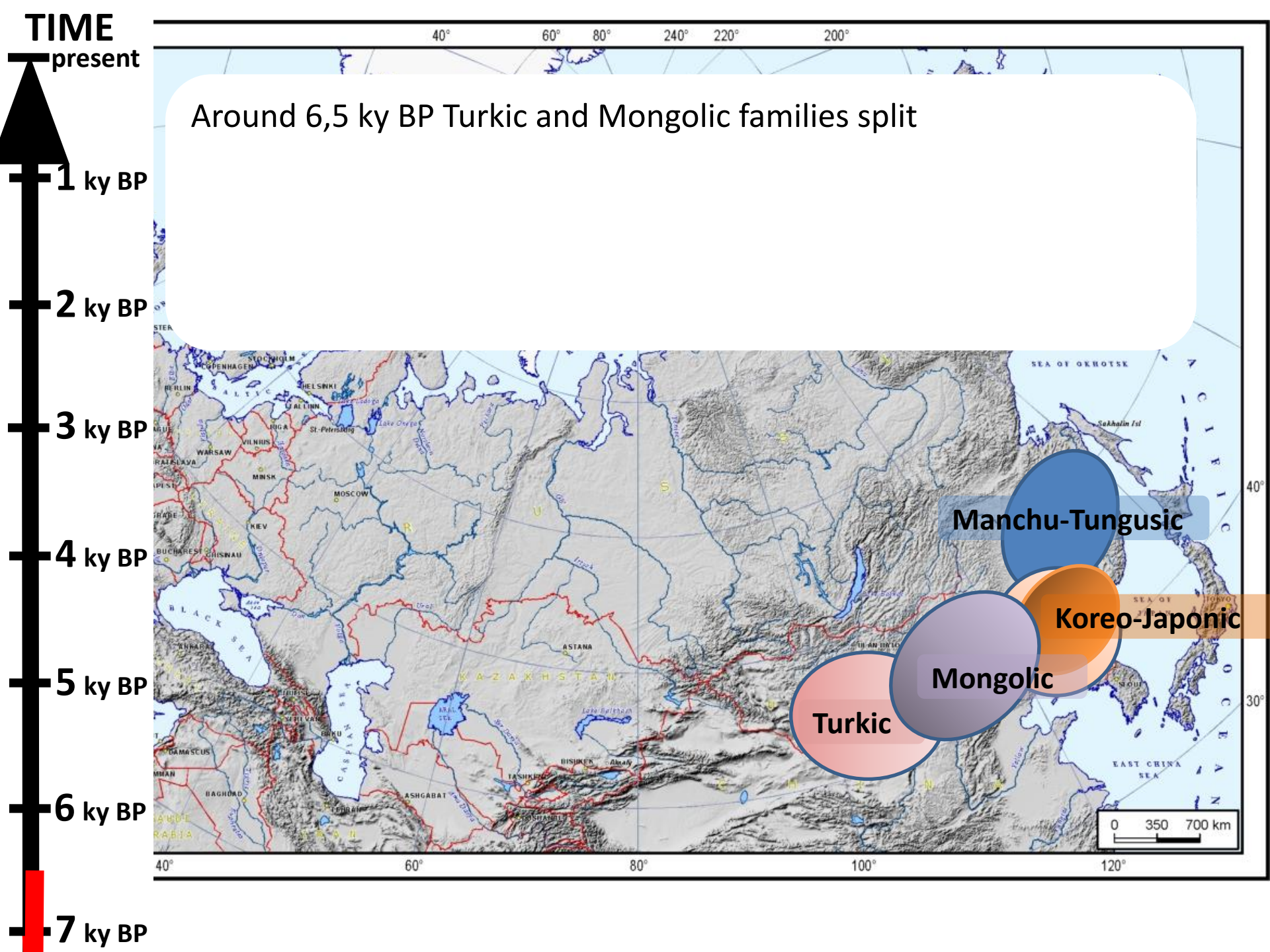
5 ky BP

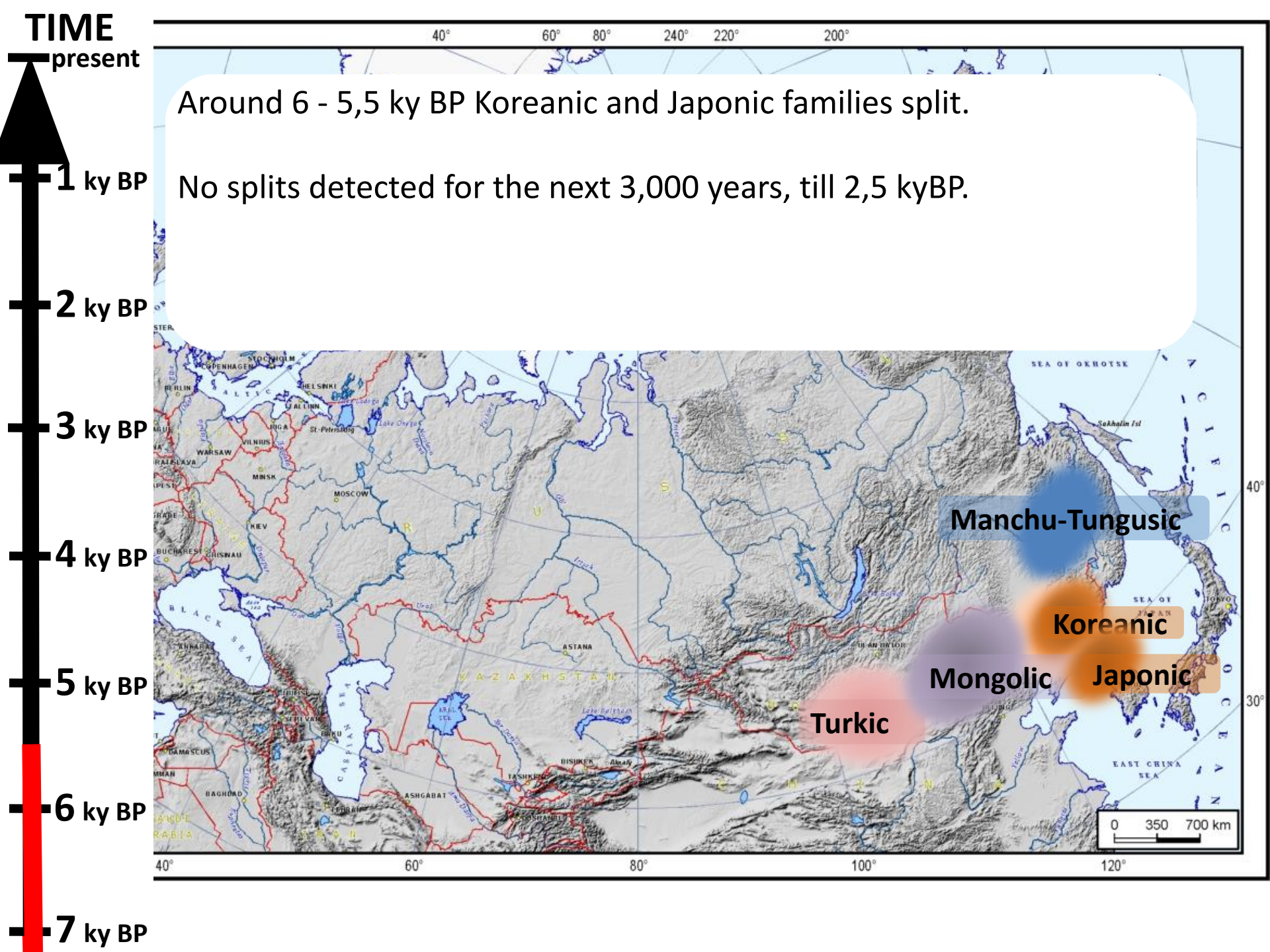
6 ky BP

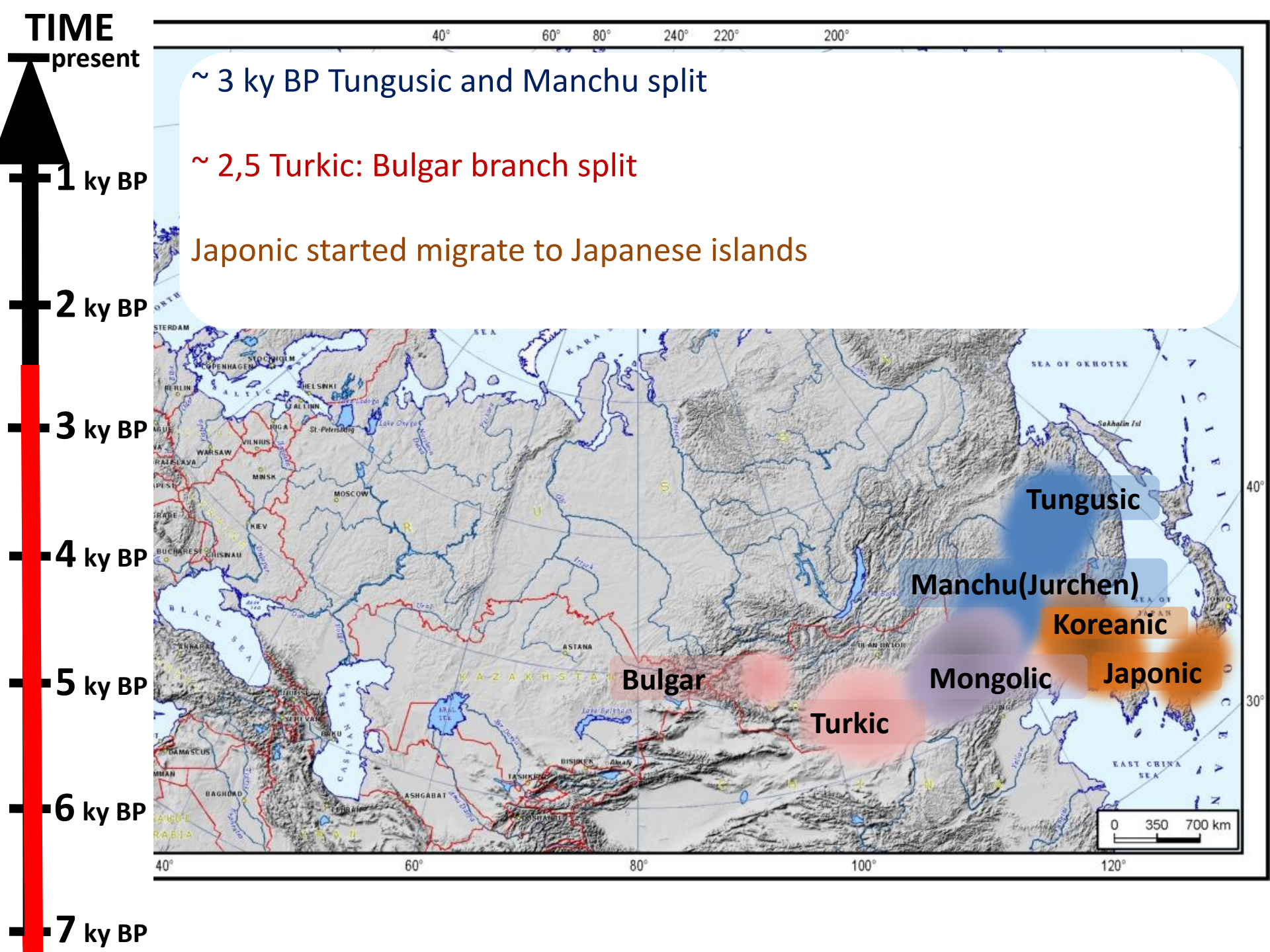
7 ky BP

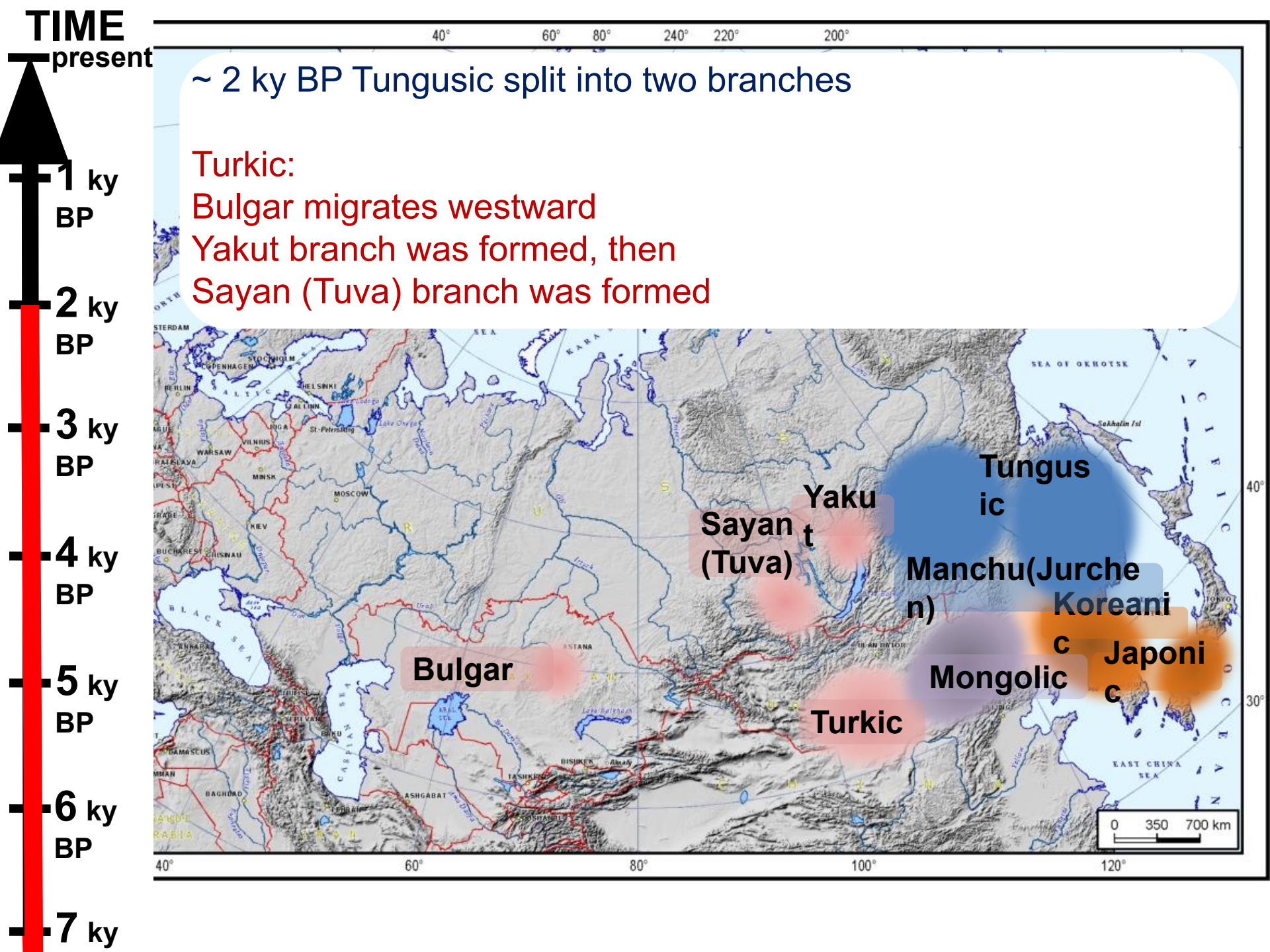
8 - 7 ky BP Proto-Altaic starts to split into
Korean-Japanese,
Manchu-Tungusic,
Turko-Mongolic families




TIME
present
1 ky BP
2 ky BP
3 ky BP
4 ky BP
5 ky BP
6 ky BP
7 ky BP
Around 6,5 ky BP Turkic and Mongolic families split
Manchu-Tungusic
Koreo-Japonic
Mongolic
Turkic
0 350 700 km

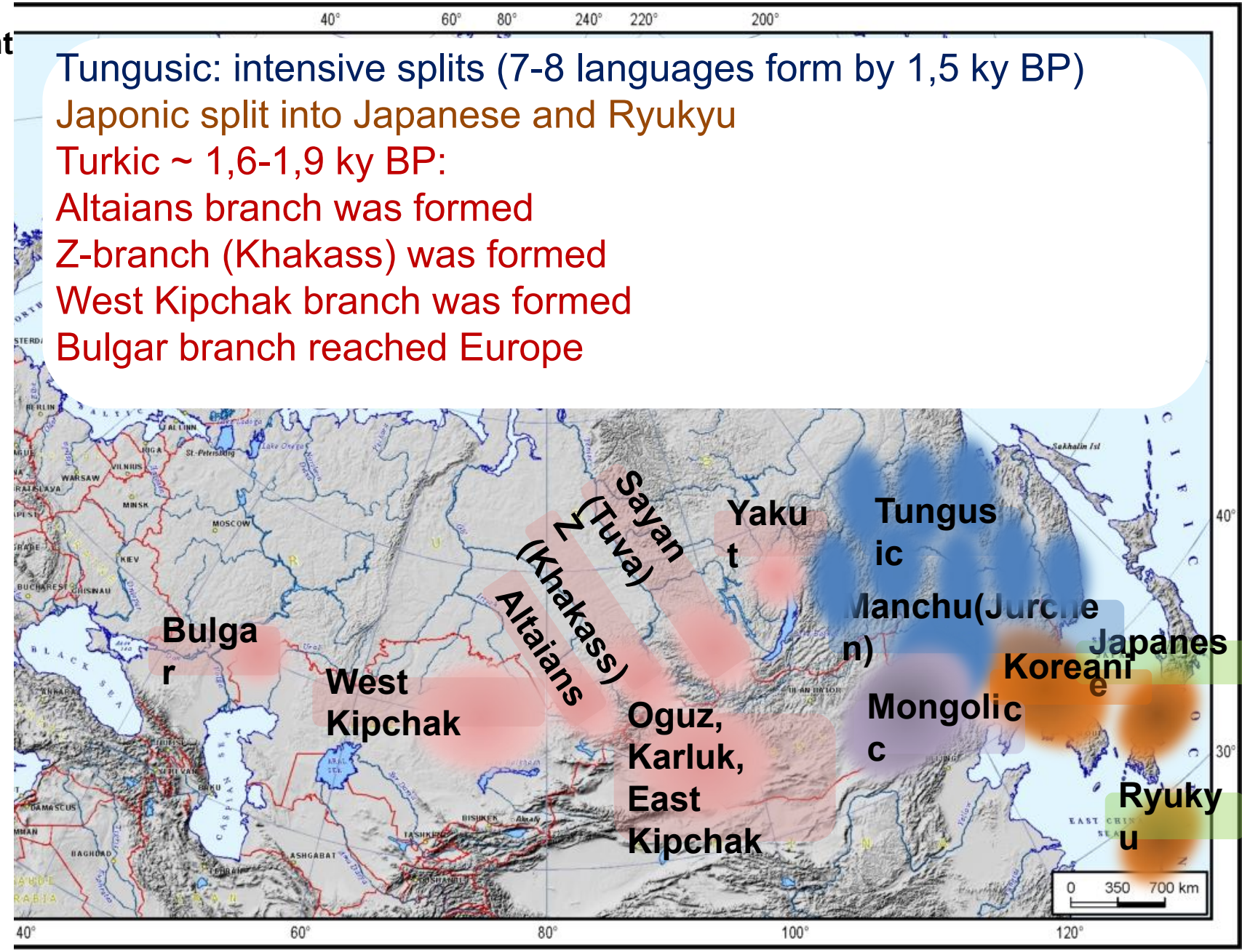

TIME
present
1 ky BP
2 ky BP
3 ky BP
4 ky BP
5 ky BP
6 ky BP
7 ky BP
Around 6 - 5,5 ky BP Koreanic and Japonic families split.
No splits detected for the next 3,000 years, till 2,5 kyBP.
Manchu-Tungusic
Koreanic
Japonic
Mongolic
Turkic
0 350 700 km


TIME
present
1 ky BP
2 ky BP
3 ky BP
4 ky BP
5 ky BP
6 ky BP
7 ky BP
~ 3 ky BP Tungusic and Manchu split
~ 2,5 Turkic: Bulgar branch split
Japonic started migrate to Japanese islands
Tungusic
Manchu(Jurchen)
Koreanic
Japonic
Mongolic
Bulgar
Turkic
0 350 700 km


TIME
present
1 ky BP
2 ky BP
3 ky BP
4 ky BP
5 ky BP
6 ky BP
7 ky
~ 2 ky BP Tungusic split into two branches
Turkic:
Bulgar migrates westward
Yakut branch was formed, then
Sayan (Tuva) branch was formed
Bulgar
Sayan (Tuva)
Yakut
Tungusic
Manchu(Jurchen)
Koreanic
Japonic
Mongolic
Turkic
0 350 700 km

TIME
present
1 ky BP
2 ky BP
3 ky BP
4 ky BP
5 ky BP
6 ky BP
7 ky

Tungusic: intensive splits (7-8 languages form by 1,5 ky BP)
Japonic split into Japanese and Ryukyu
Turkic ~ 1,6-1,9 ky BP:
Altaians branch was formed
Z-branch (Khakass) was formed
West Kipchak branch was formed
Bulgar branch reached Europe



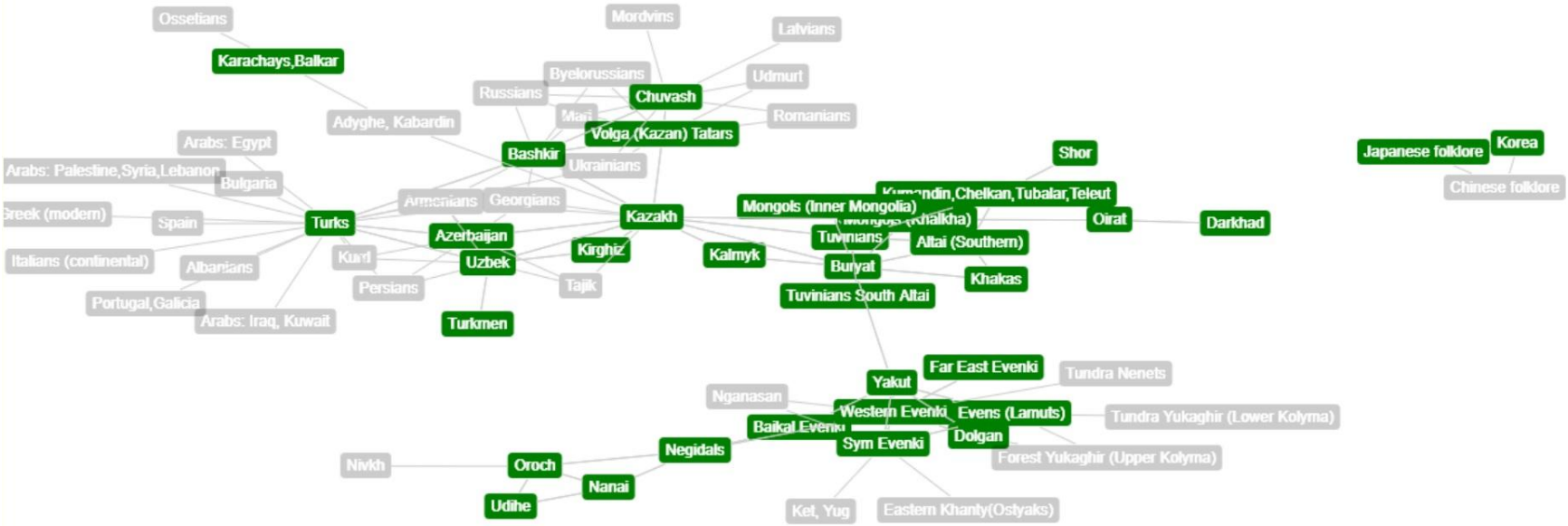
Mythology

- Based on database of mythological motives of Yu.E. Berezkin (www.ruthenia/folklore/berezkin)
- The largest mythological dataset
- It is difficult to say which motives more basic and less changeable…

Number of mythological motifs in the Altaic traditions

N. of motifs	Examples of traditions
>400	Kazakh, Bashkirs, Anatolia Turks (3)
300-400	Kazan (Middle Volga) Tatars, Buryats, Karachays, Balkar, Mongols (Khalkha), Chuvash, Azeris (Azerbaijanis) (6)
200-300	Uzbek, Southern Altai: Altai proper (Altai-Kiji), Telengit, Khakas, Tuvinians of Tuva, Kalmyk etc. (13)
100-200	Western Tungus (Evenki), Udeghe, Gagauz, Tungus (Evenki): Baikal region, Evens (Lamuts) etc. (17)
50-100	Siberian Tatars, Western Siberia Tungus (Evenki): Sym River, Ket River, Monguor (Tu), Shirongol, Tofa (Karagas), Negidal etc. (15)
20-50	Chulym Turks, Manchu, Olcha (Ulch), Tungus (Evenki) of China (Solon, Birar, Oroqen, Manegir), Uilta (Orok), Dongxiang (6)
<20	Khwarezm Uzbek, Evens (Lamuts) of Kamchatka, Astrakhan Tatars, Karagash Nogai (3)

Principal Altaic mythological connections



Geography - Linguistics

- Altaic (whole) 0,420644
- Mongolic -0,09496
- Tungusic 0,633088
- Turkic 0,508534

Geography - Mythology

- Altaic (whole) 0,454104
- Mongolic 0,025048
- Tungusic 0,739057
- Turkic 0,574633

Linguistics - Mythology

- Altaic (whole) 0,437615
- Mongolic 0,408272
- Tungusic 0,691054
- Turkic 0,569168

Thanks for your attention!