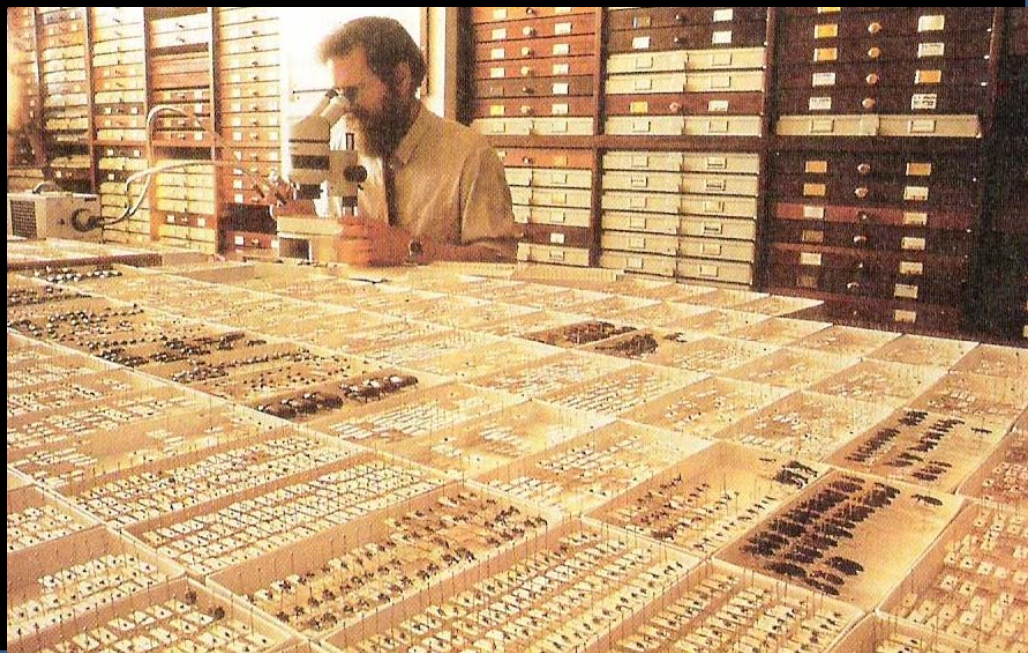
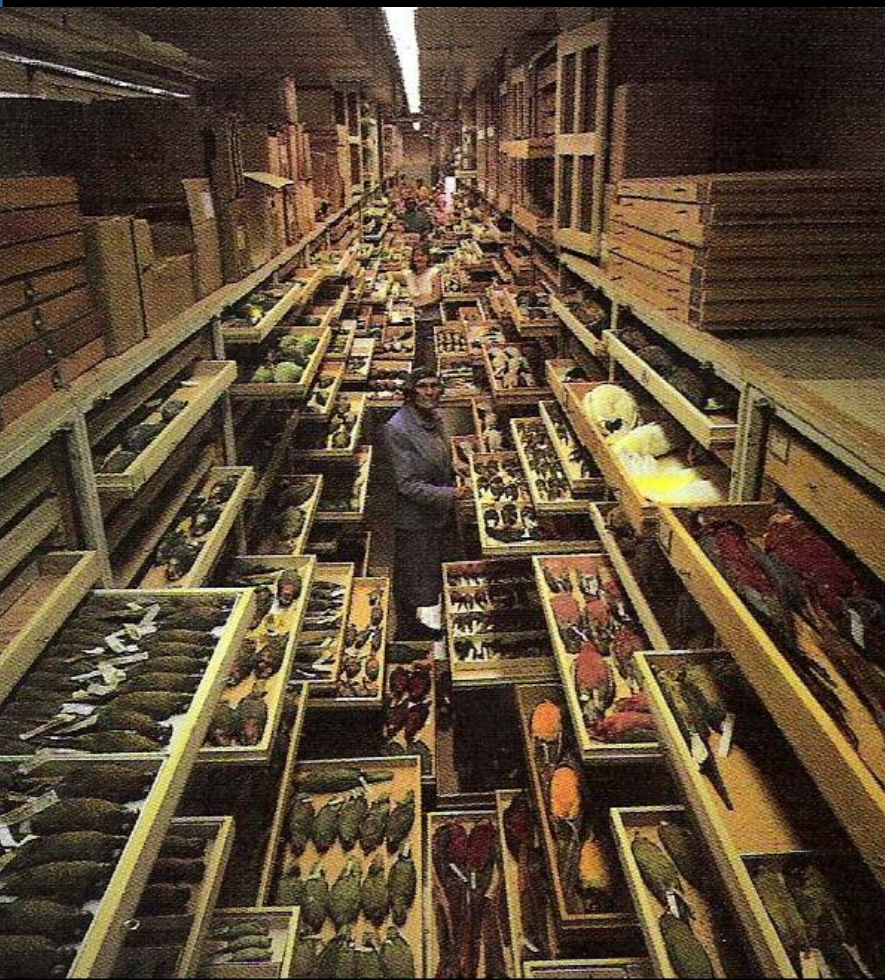




VRSTA

Boris Kryštufek

Univerza na Primorskem
Prirodoslovni muzej Slovenije

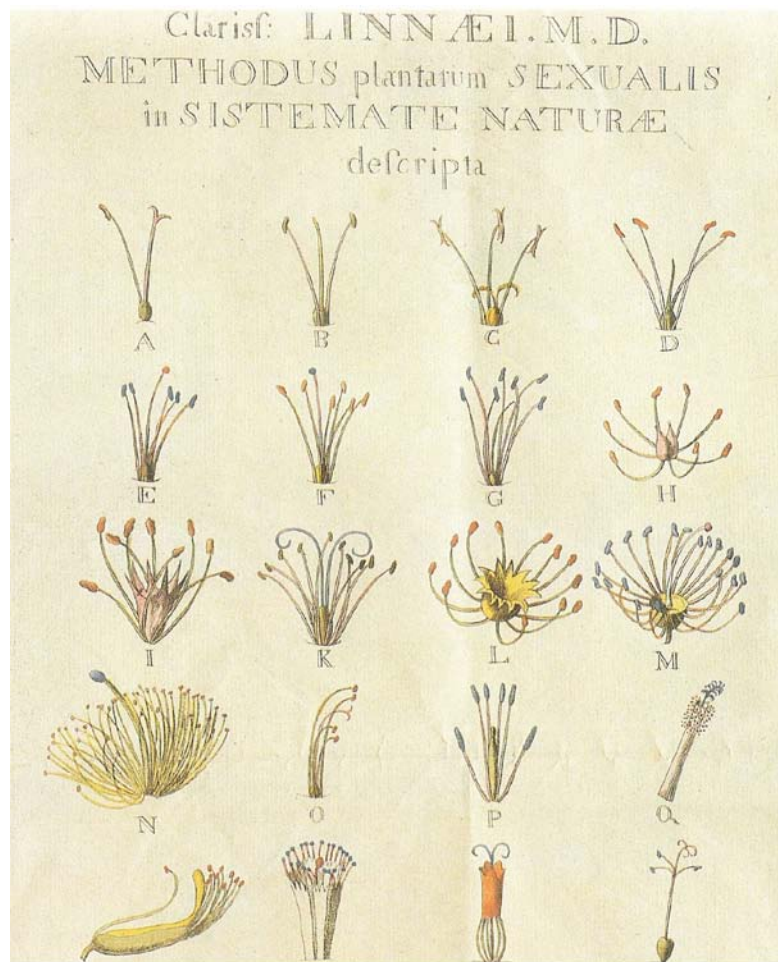
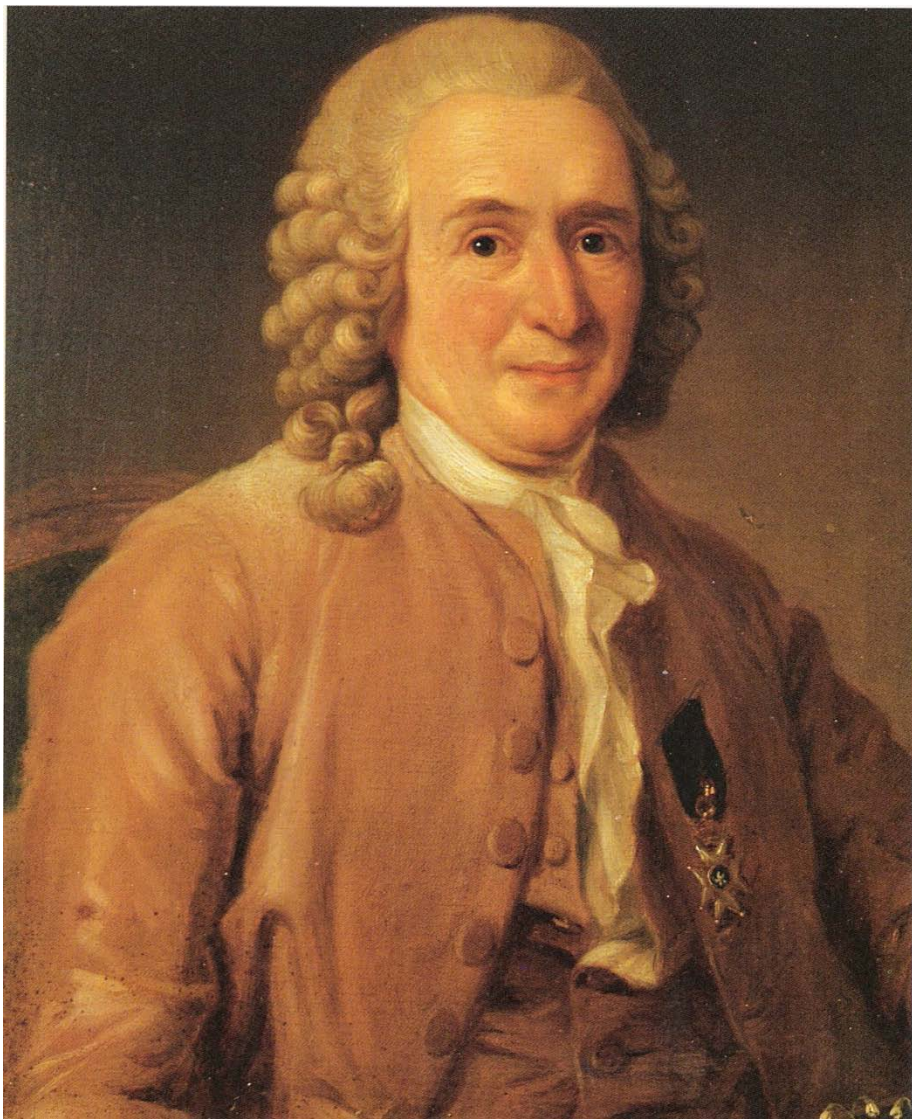


Vrsta je v biologiji ena temeljnih enot, po pomenu primeljiva s konceptom gena, celice, ekološke niše itd.

“species mean many things to
many people”

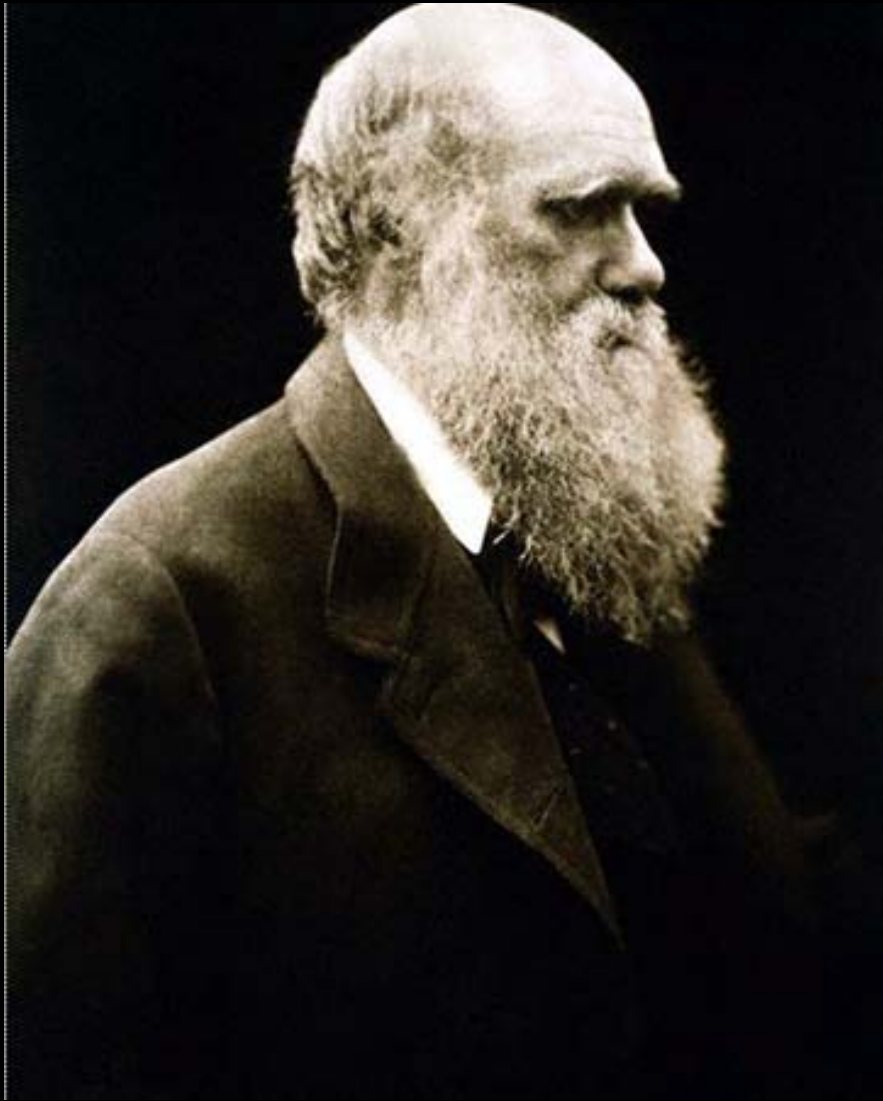
Agapow P-M. 2005. Species: demarcation and diversity. In: Prvis A et al. (eds)
Phylogeny and Conservation. Cambridge Univ. Press: 57-75.

Karl Linne

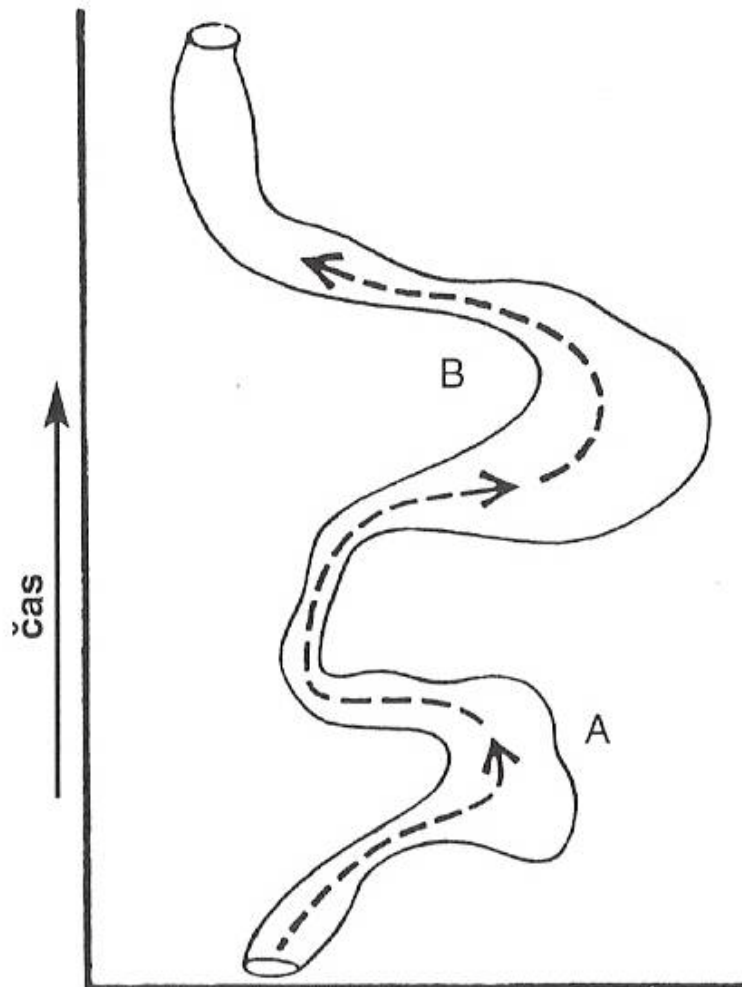


Tipološki koncept

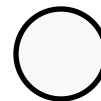
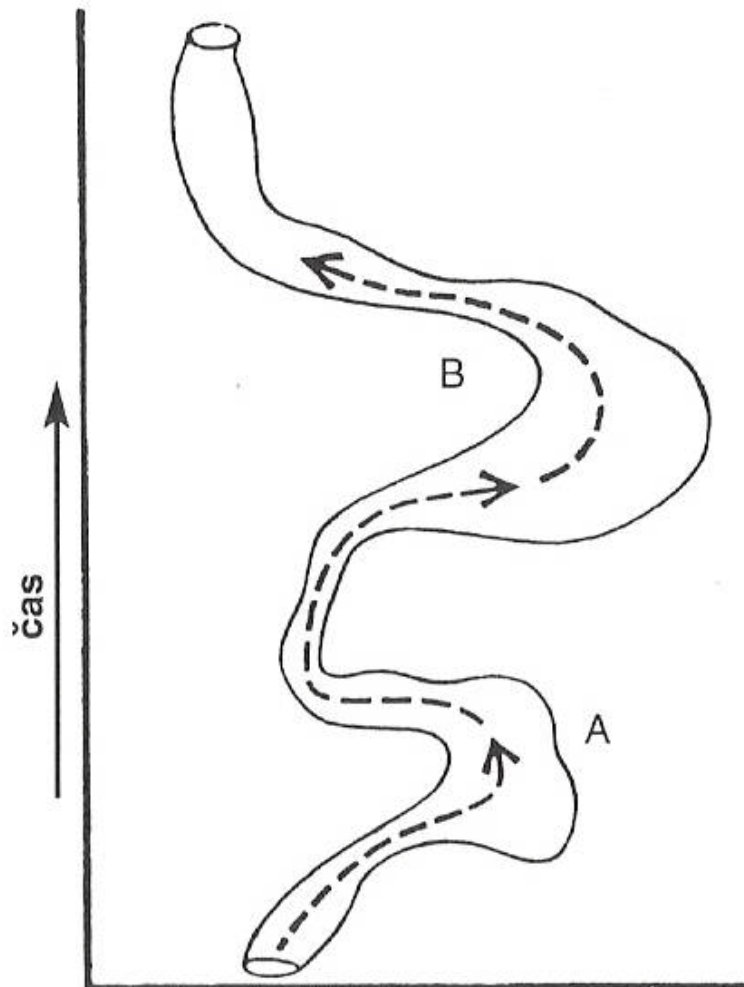
Charles Darwin in Alfred R. Wallace



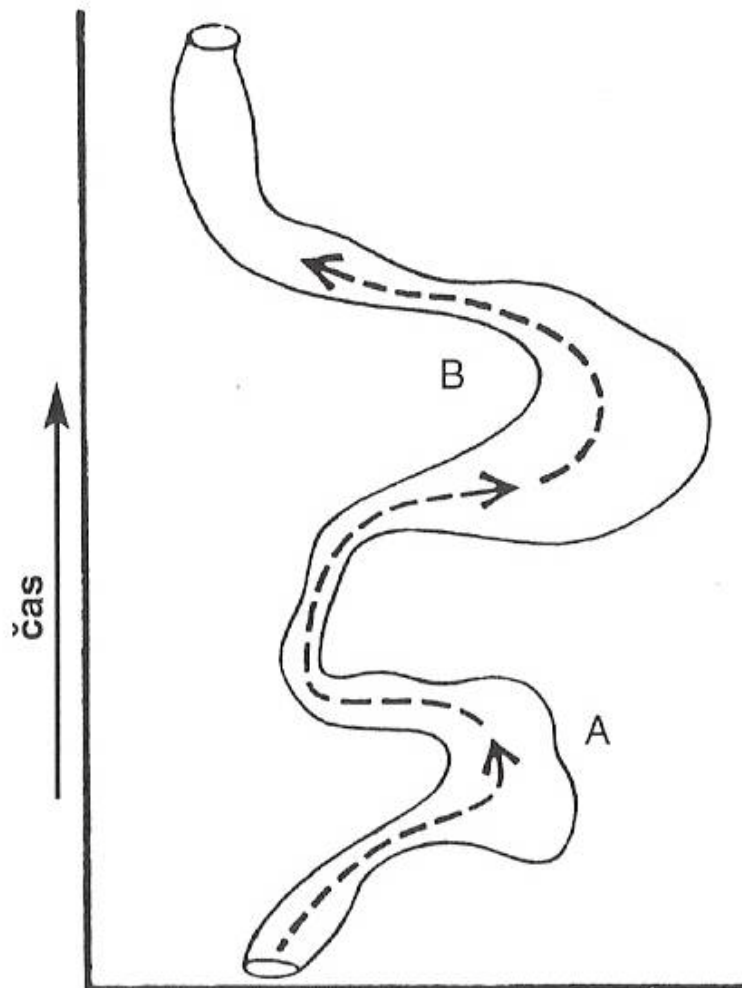
Filetska specijacija



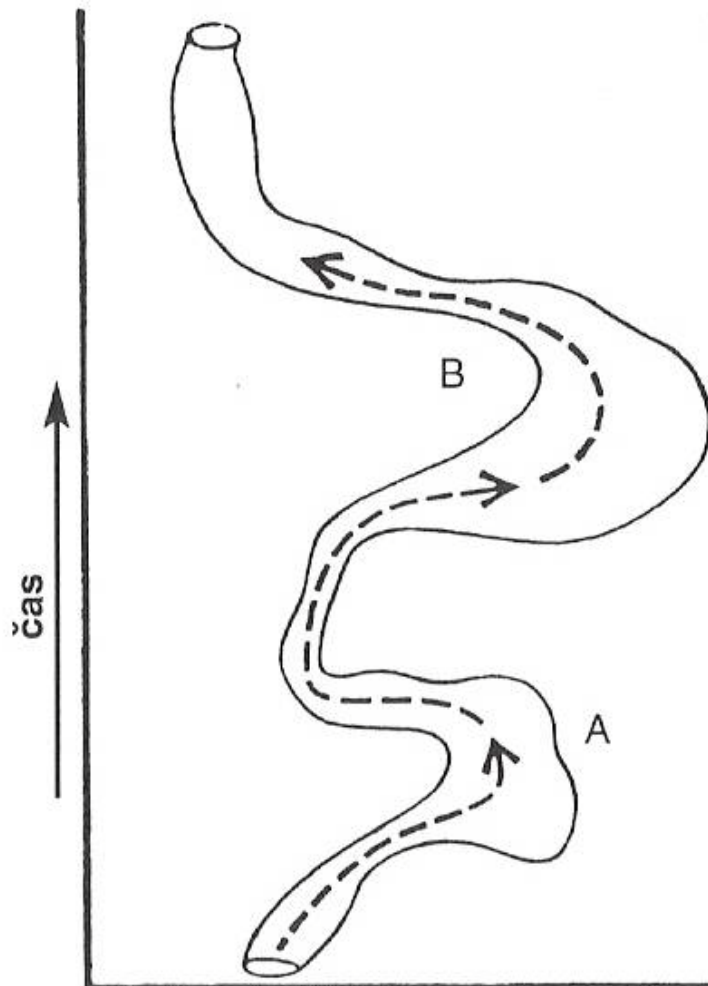
Filetska specijacija



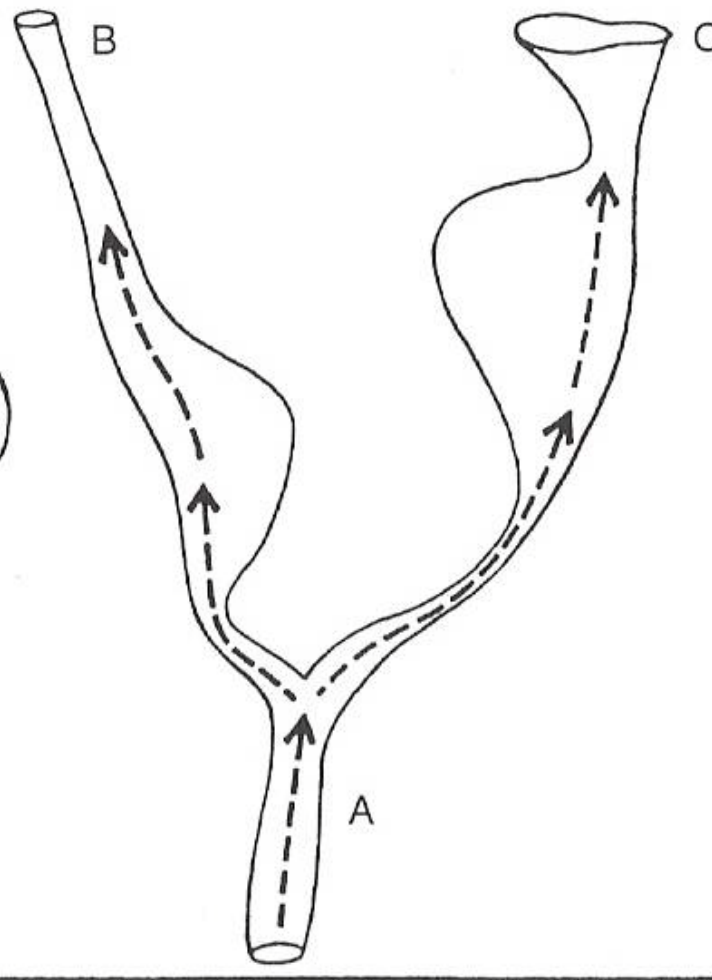
Filetska specijacija



Filetska specijacija



Divergentna specijacija



Biološka vrsta

skupina naravnih populacij, ki se med seboj dejansko ali potencialno **razmnožujejo**, ki pa so reproduktivno izolirane od drugih takšnih skupin

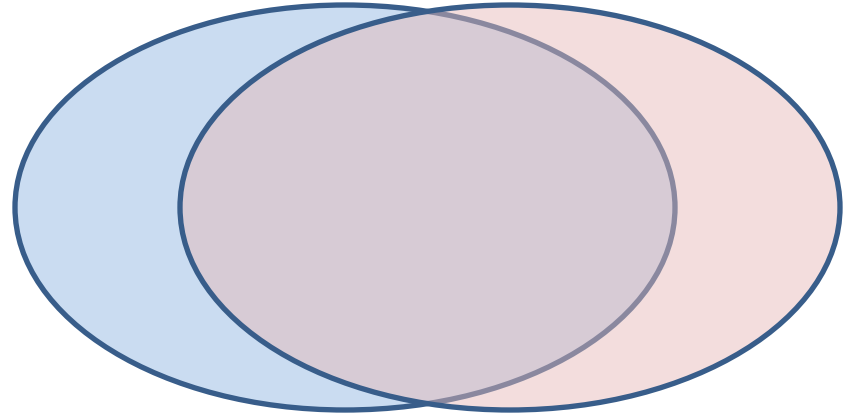


Ernst Walter Mayr

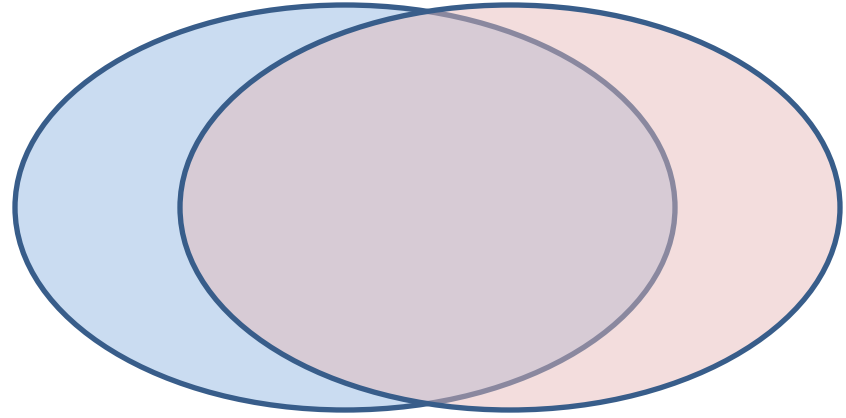
Vrsta je kolektivna kategorija

- Prostorska dimenzija
- Časovna dimenzija

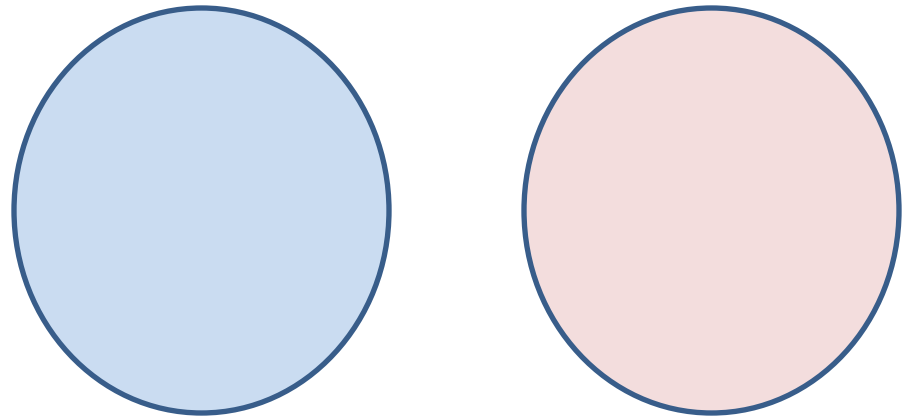
Simpatrija



Simpatrija



Alopatrija



Parapatrija



Spalax ehrenbergi

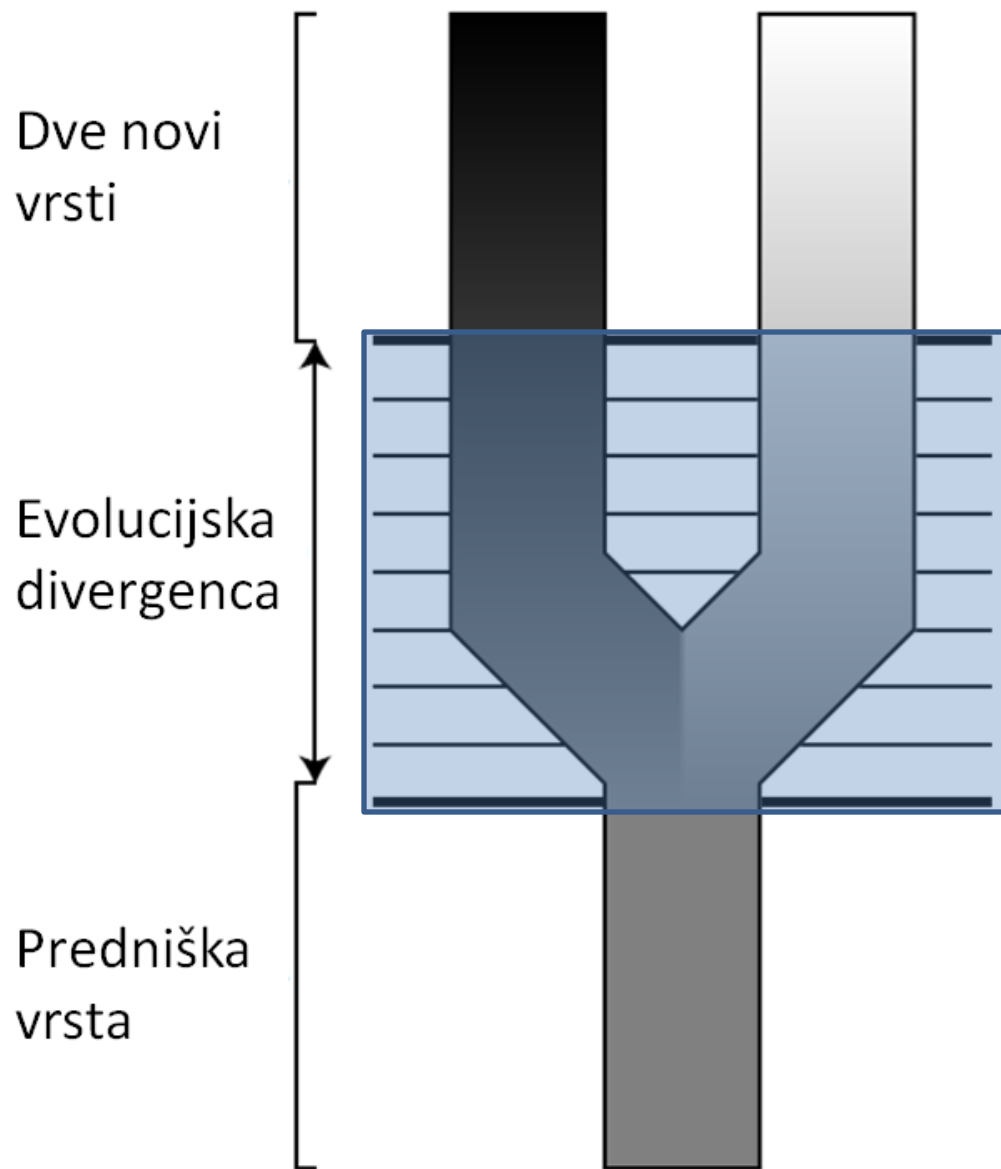
Vlažno

Suho

52 → 54 → 58 → 60



- Ekološki koncept
- Kohezijski koncept
- Filogenetski (kladistični) koncept
- Evolucijski koncept
- Genetska definicija
- Koncept prepoznavnosti
- Nominalistični koncept

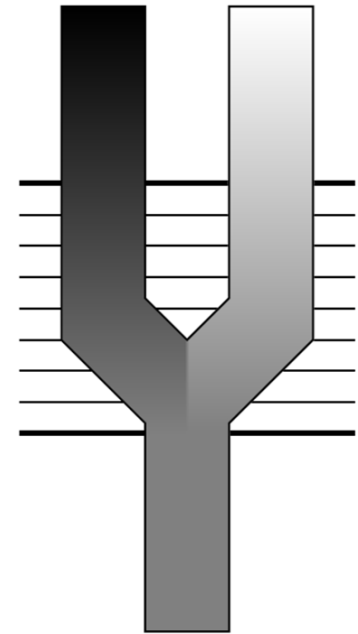


de Queiroz (2007)

- Konceptualni nivo
- Operativni nivo

Konceptualno

Species are separately
evolving (segments of)
metapopulation
lineages



Genetski koncept vrste

“Genetska vrsta” je skupina genetsko kompatibilnih naravnih populacij, ki so genetsko izolirane od drugih podobnih skupin.

Do genetske izolacije pride, ko se dva genoma razideta do točke, v kateri sta genetsko različna in nič več ne delita skupne evolucijske usode.

Genetska variabilnost

	Znotraj vrst	Med vrstami
<i>Spermophilus</i>	0.0 – 4.0	1.3 – 11.3
<i>Microtus</i>	0.2 – 4.4	4.3 – 11.1

Baker, R.J., Bradley, R.D. 2006. Speciation in mammals and the genetic species concept. *J. Mammalogy* 87: 643-662.

Mus macedonis skupina

mt DNA kontrolna regija



Macholan M, Vyskočilova M, Bonhomme T, Kryštufek B, Orth A, Vohralik V. 2007. Genetic variation and phylogeography of free-living mouse species ... *Mol. Ecol.* **16**: 4774-4788.

M. macedonicus macedonicus

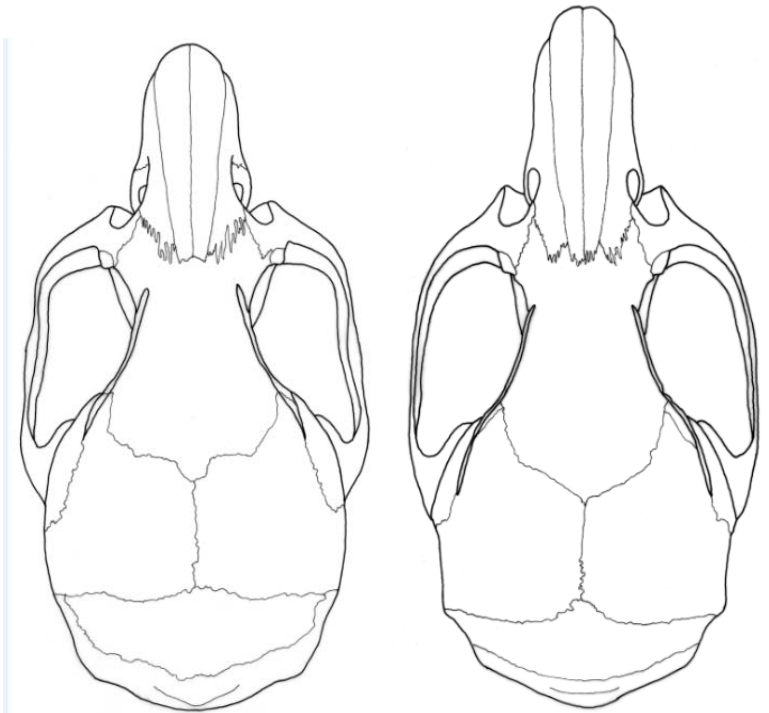
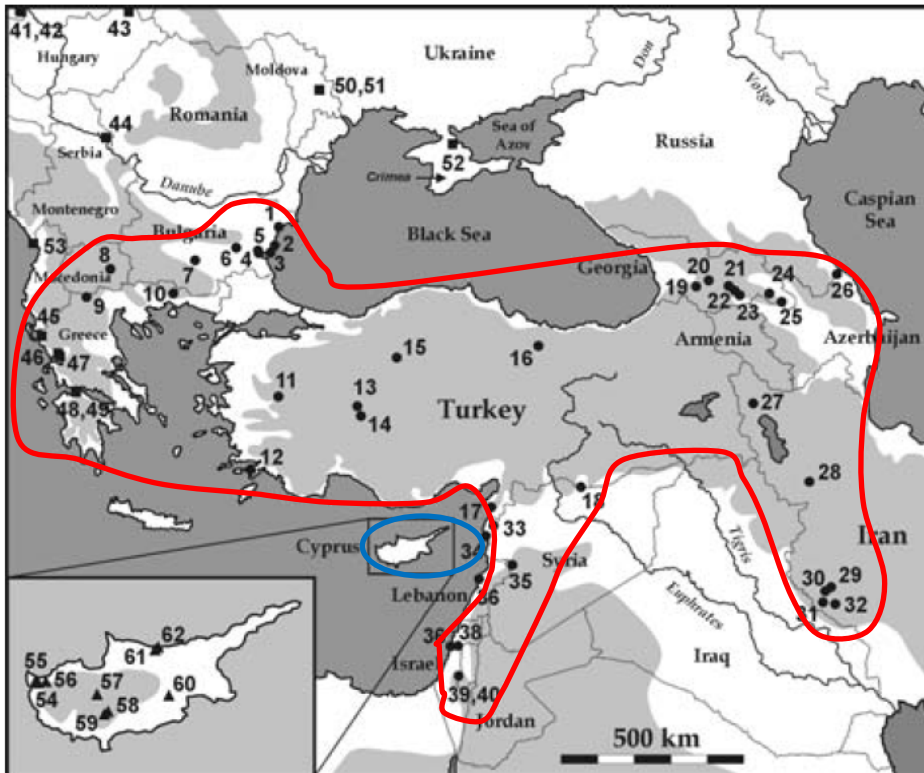
Balkan, Anatolija

M. macedonicus "spretoides"

Izrael

M. cypriacus

Ciper

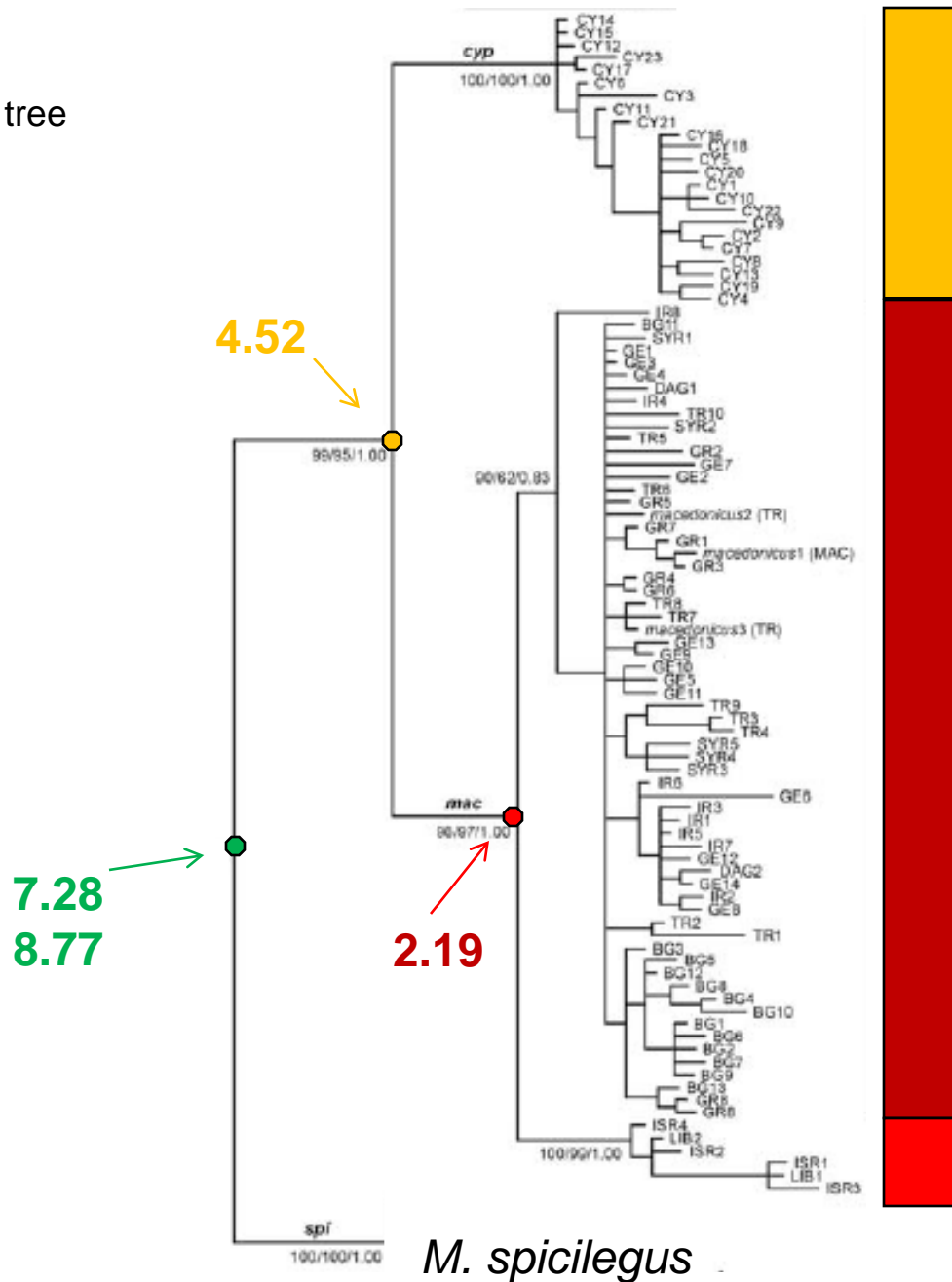


M. macedonicus

M. cypriacus

Bayesian
consensus tree

TrN (%)



M. cypricus
Ciper

M. macedonicus
macedonicus
Balkan, Anatolija

M. macedonicus
"spretoides"
Izrael

Apodemus (cyt. b)



Michaux, J. R., Magnanou, E., Paradis, E., Nieberding, C., Libois, R. 2003. Mitochondrial phylogeography of the woodmouse (*Apodemus sylvaticus*) in the Western Palearctic region. *Mol. Ecol.*, **12**: 685-697.

Michaux, J. R., Libois, R., Paradis, E., Filippucci, M. G. 2004. Phylogeographic history of the yellow-necked fieldmouse (*Apodemus flavicollis*) in Europe and in the Near and Middle East. *Mol. Phyl. Evol.*, **32**: 788-798.

Apodemus sylvaticus

W, C, N Europa / Italia + Balkans

1.5 – 1.6 Mya

Italy / Balkans

0.8 – 0.9 Mya

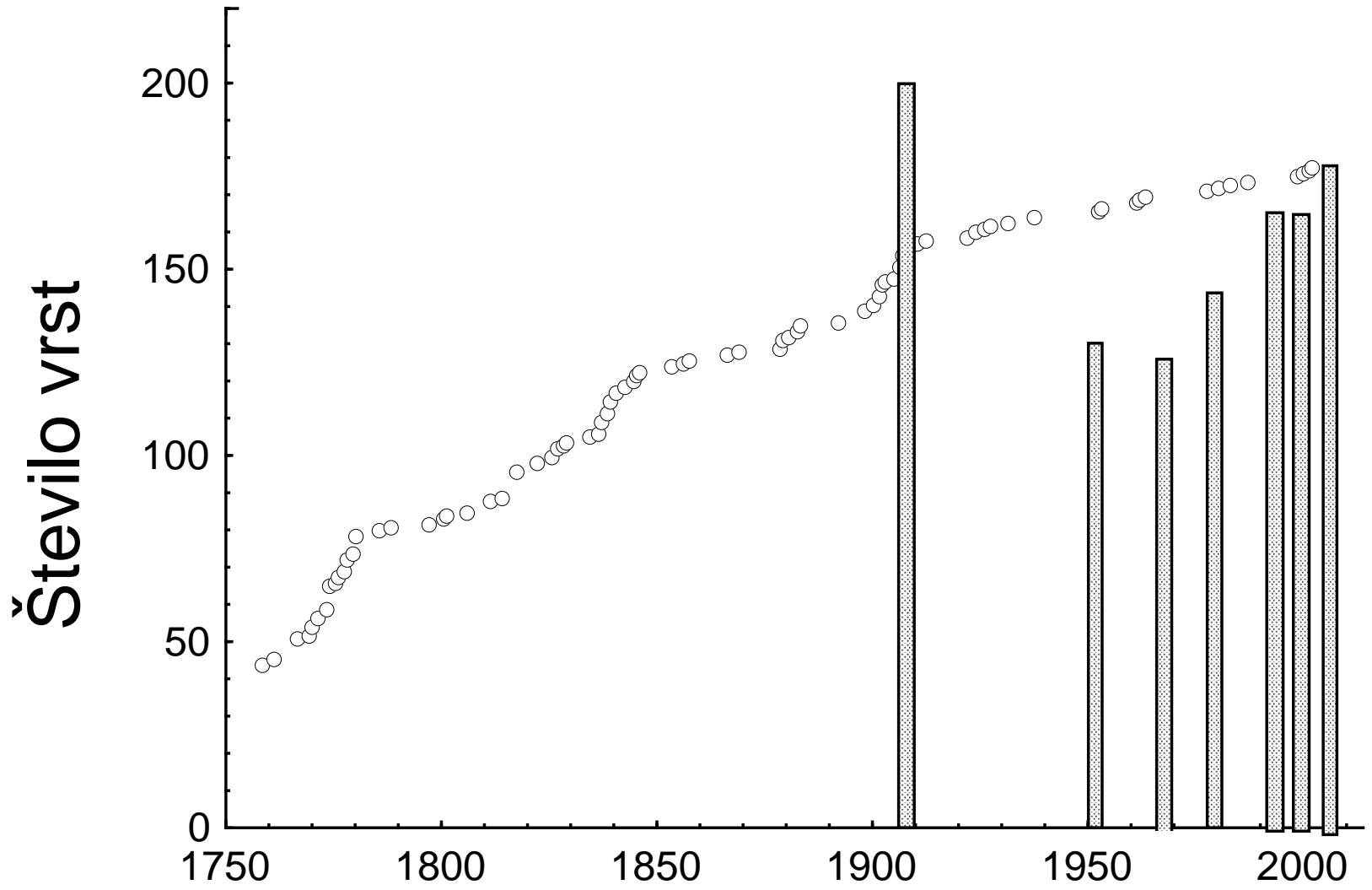
Apodemus flavicollis

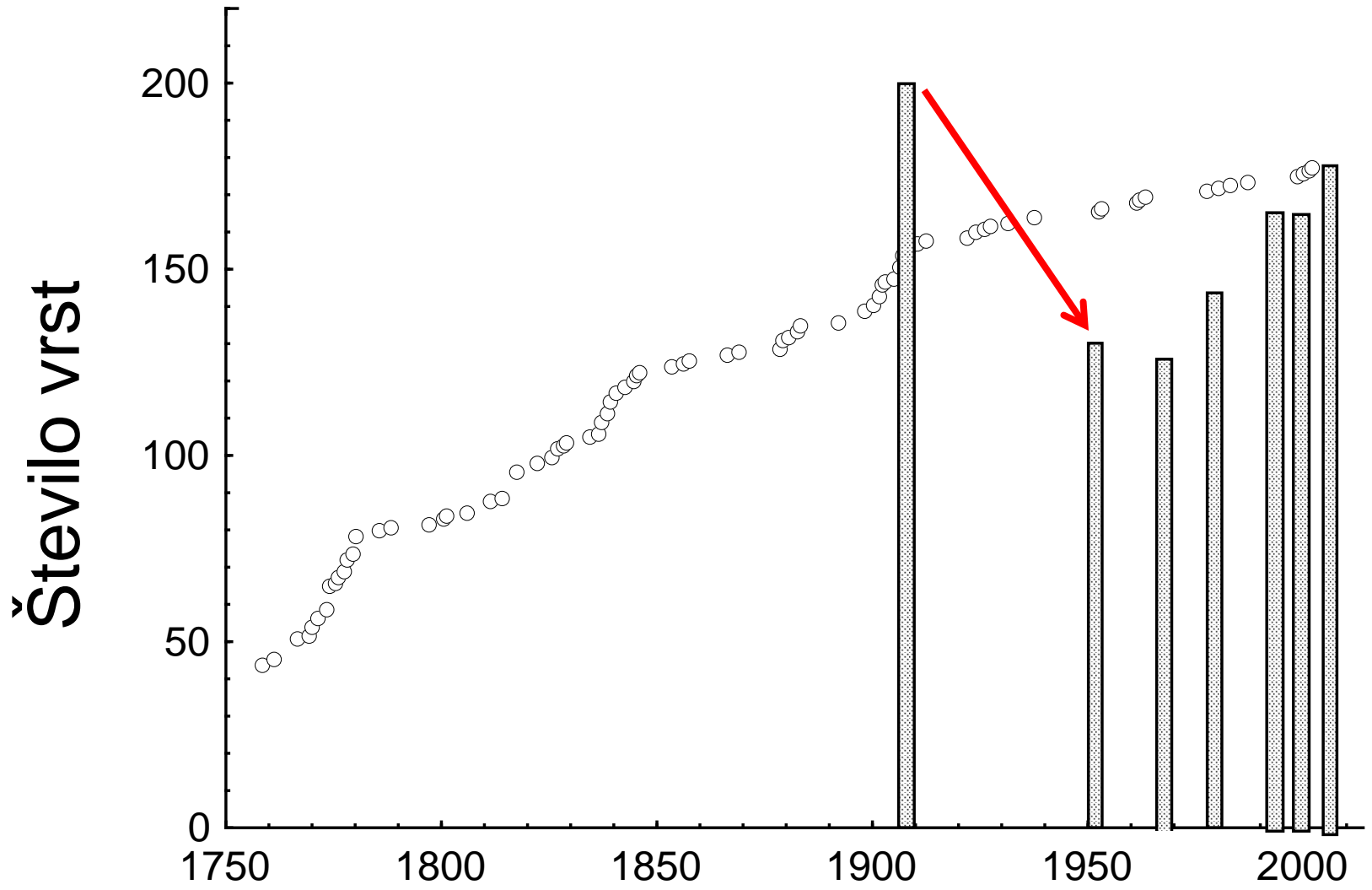
Europa / Bližnji vzhod

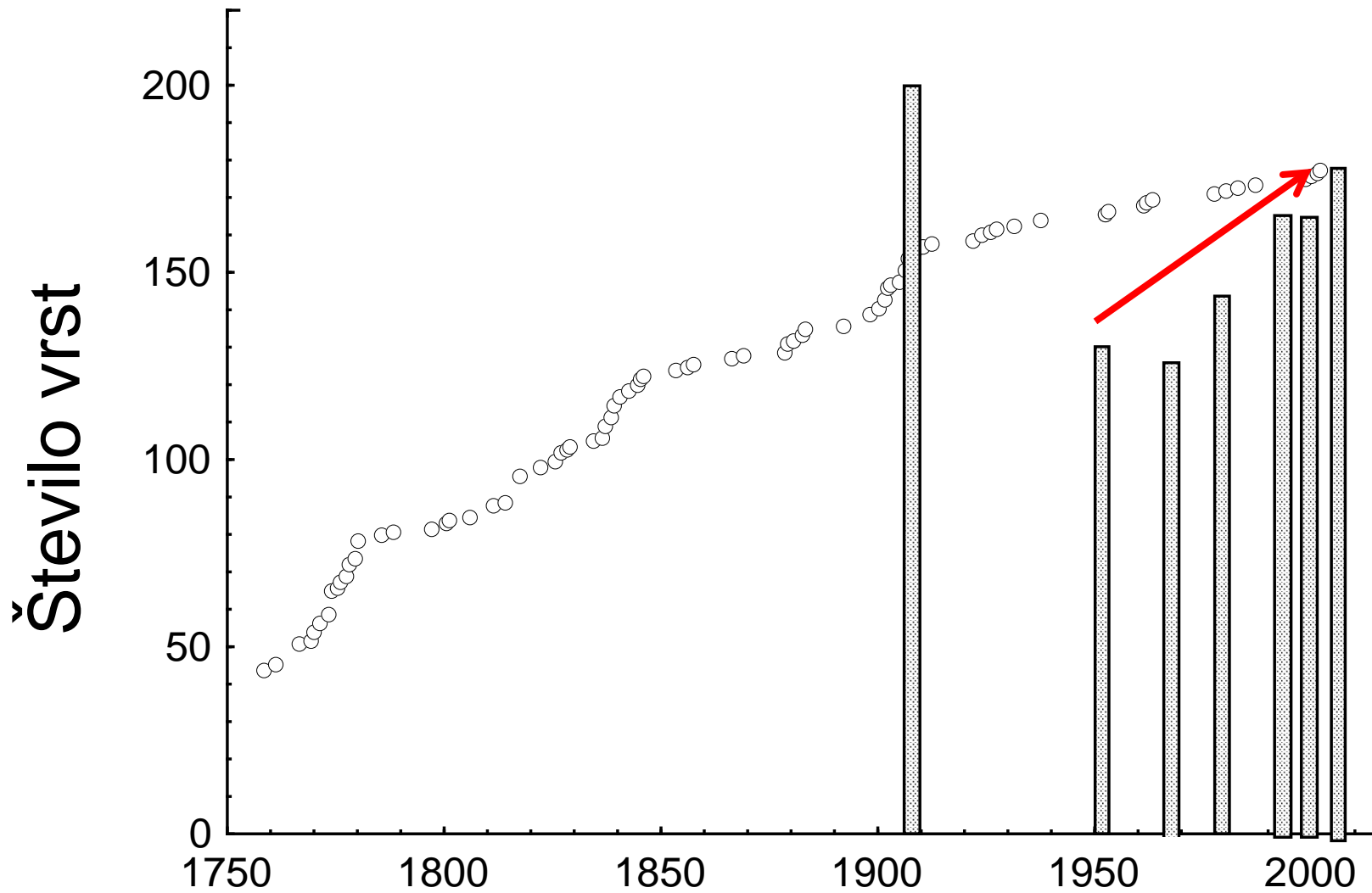
2.2 – **2.4 Mya**

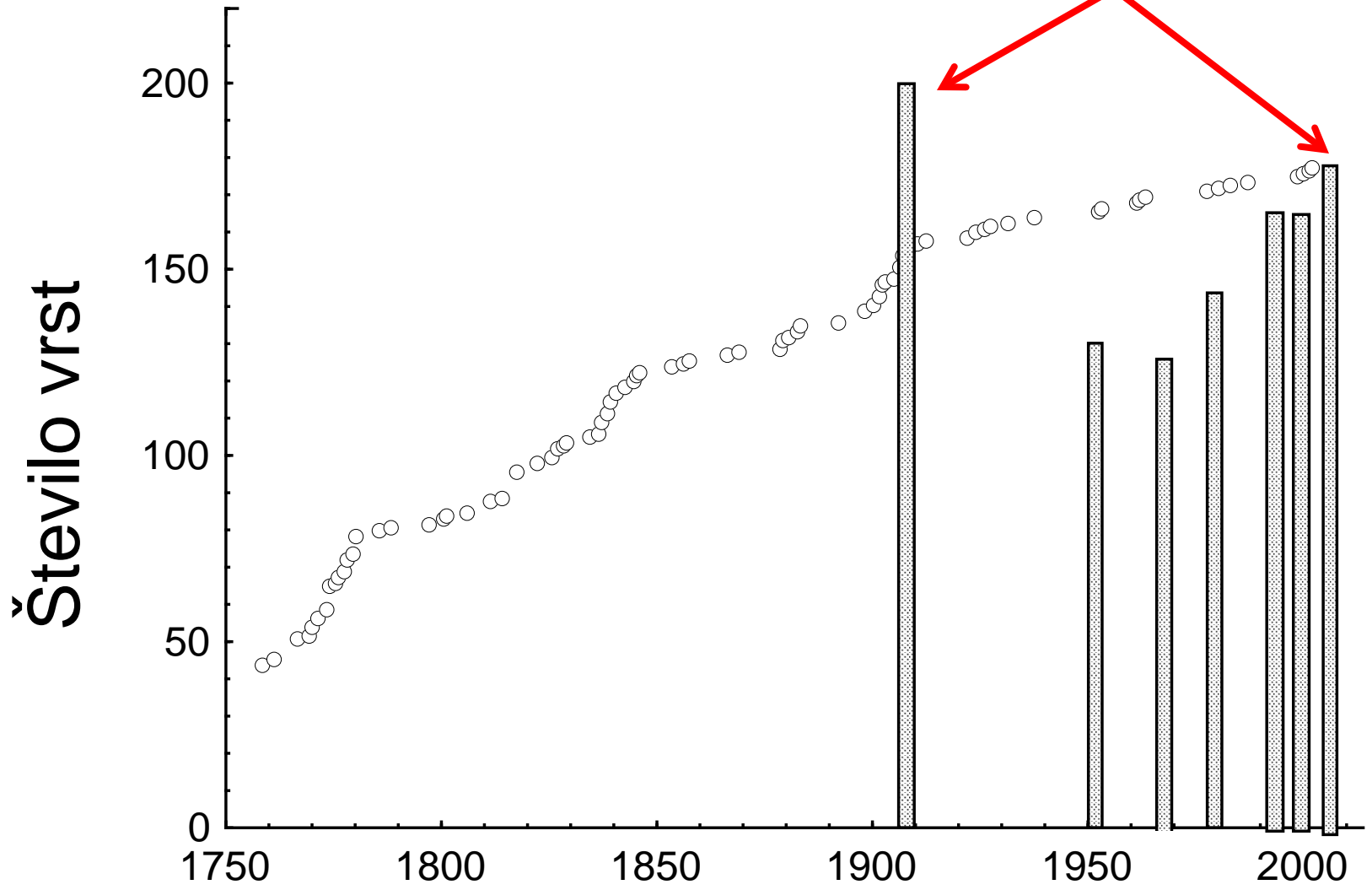
Mus macedonicus / M. cypriacus

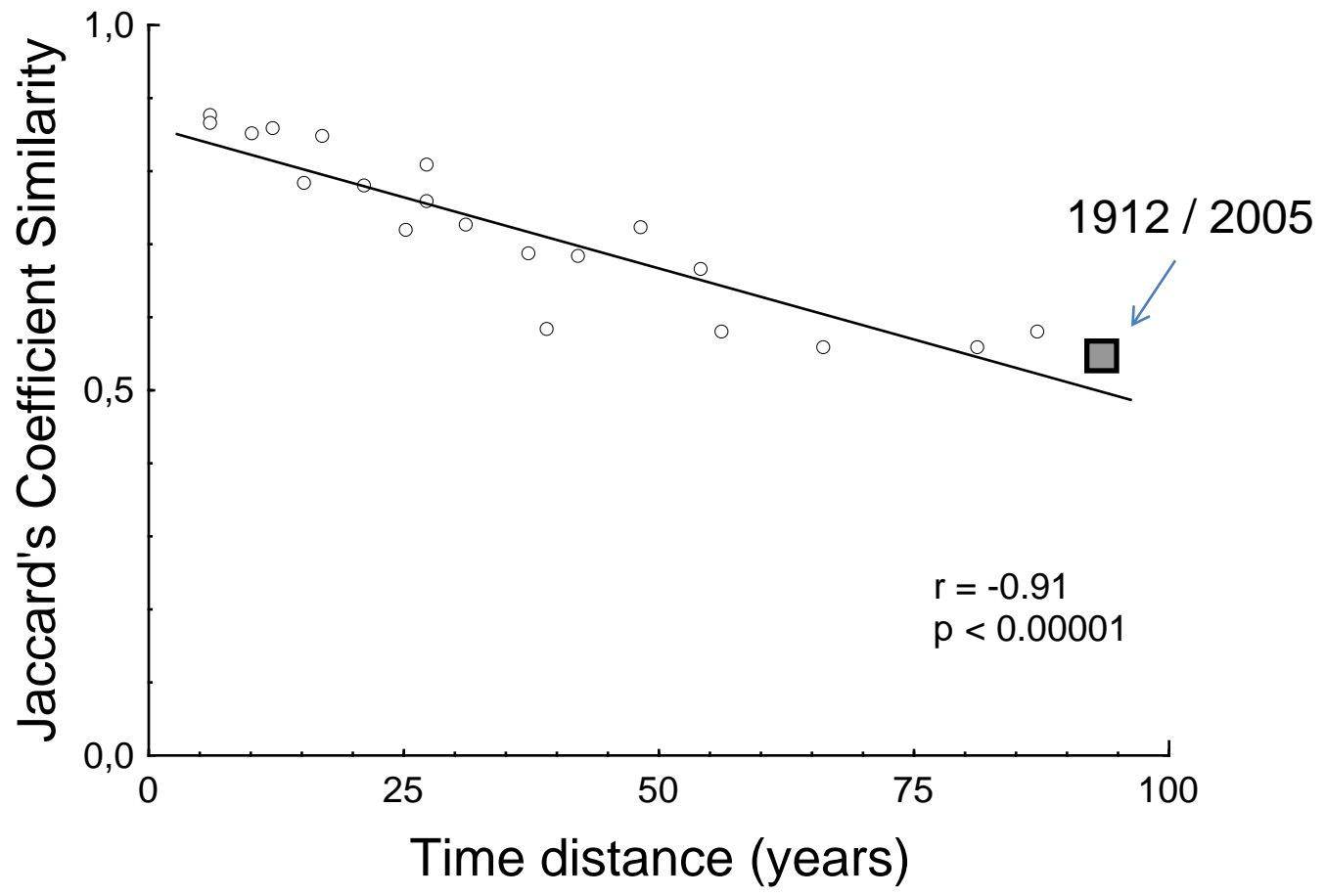
0.4 – 0.6 Mya











Hvala

