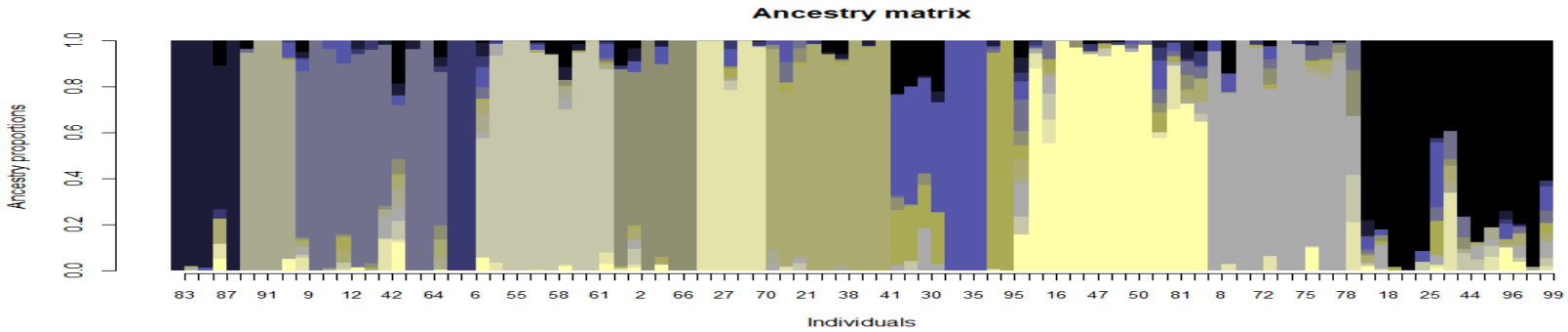
Phylogeny and species limits in African grass rats (Muridae: *Arvicanthis*) using genomic-scale data

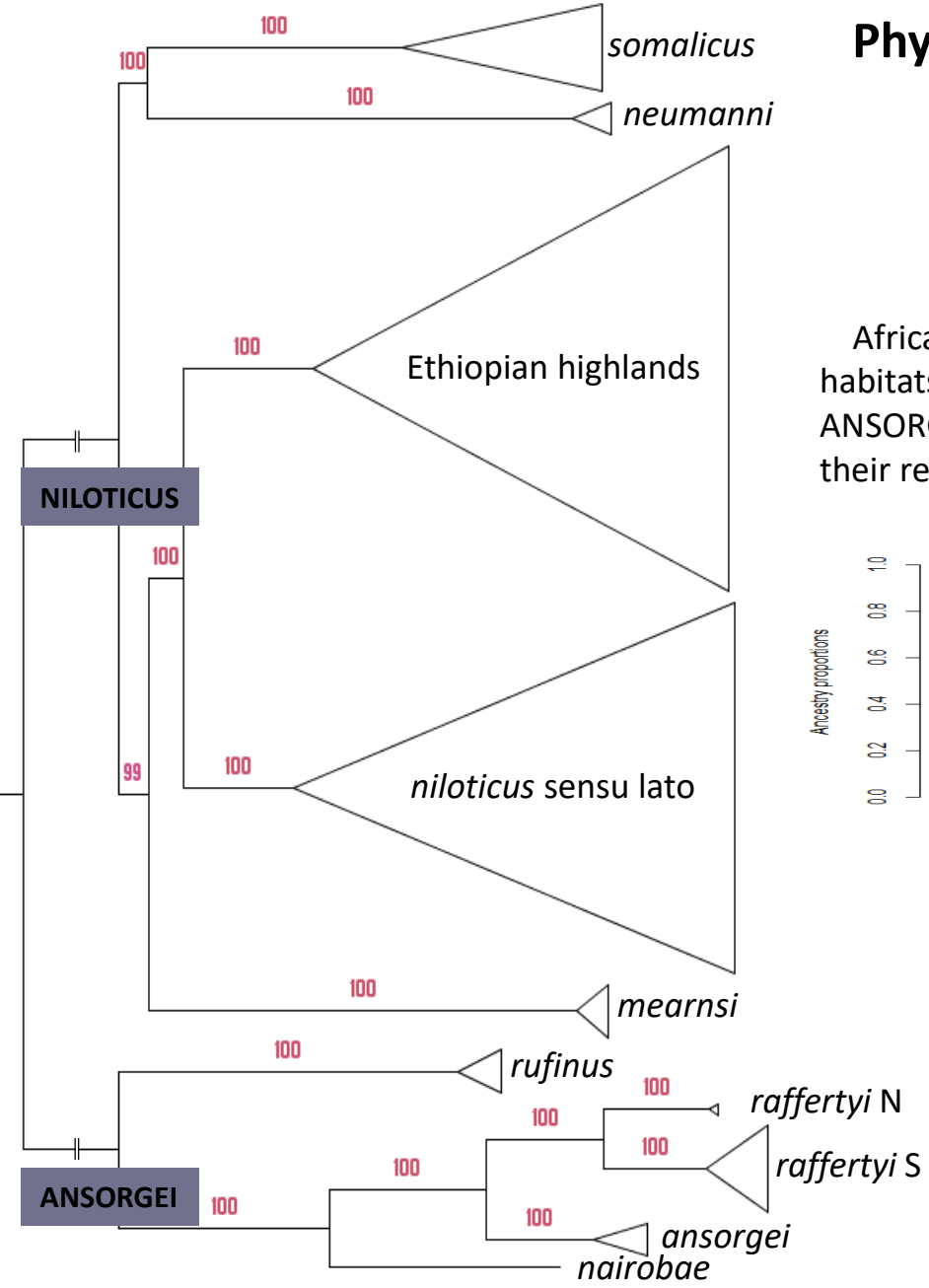
V. Bartáková [1], D. Mizerovská [1,2], O. Mikula [1], A. Bryjová [1], J. Bryja [1,2]

[1] Institute of Vertebrate Biology CAS, [2] Department of Botany and Zoology, Faculty of Science, Masaryk University, CR

African grass rats of the genus *Arvicanthis* are one of the most important group of rodents of various open habitats in sub-Saharan Africa. This genus is composed of two major evolutionary groups, called the ANSORGEI and NILOTICUS, with different evolutionary histories. However, the delimitation of species and their relationships within these two main groups are not yet satisfactorily resolved.



We are planning to use a spectrum of methods for species delimitation, e.g. Lea package (snmf, Figure), fineSTRUCTURE or BPP.



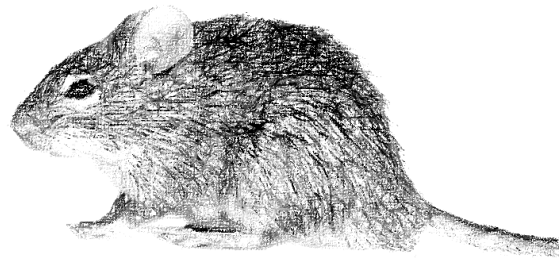
IQ-tree – pilot analysis

AIMS

Reconstruction of evolutionary history using genomic data and solving the most problematic nodes.

Identification of genomic pools (= species delimitation) with the main focus on Ethiopian taxa.

Resolving taxonomy of problematic groups using integrative approach.



modified photo by V. Motyčka