Phylogeography – Session 2

Comparative phylogeography of the Mongolian region based on its mammals

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The periodic oscillations of glacials and interglacials have had an enormous impact on formation and changes of global mammal communities. Particularly, refugia play a significant role in species diversification and modification of their genetic diversity. Refugia were crucial for the survival of some taxa and their subsequent recolonization of particular regions or whole continents during inhospitable conditions (glacial elements during interglacial periods and vice versa). The recognition of refuge from a geographical point of view and fauna compositions in certain (macro)regions helps us to understand earlier conditions and biological processes which have influenced the recent diversity and distribution of particular species. Refugia have been well studied, especially in North America and Europe. In the context of the entire Palaearctic Realm, however, it is worthwhile to focus also on refugia in Asia. There are several proposed refuge areas such as: Beringia, South Ural, Caucasus or southern part of Asia. In the recent studies, the area including Altai, (Western) Sayan and the adjacent areas of Mongolia and China is emerging as a significant refugium, especially for glacial species or so-called mammoth-steppe fauna. The current results indicate the peculiarity of local populations and the refugee character of this region and also the key position of the entire Altay-Sayan-western Mongolian region characterized by the continuous presence of grasslands and deserts until at the present since the Late Pleistocene. Within our research, we analyze basic phylogenetic andpopulation-genetic parameters in selected species in order to find out the degree of diversification for sub-populations and corresponding time spans, links to other populations, and current and past biogeographical influences. This is the first introduction of our results realised for several selected species (e.g. *Apodemus peninsulae*, *Microtus gregalis*, *Allactaga sibirica*, *Eolagurus luteus*, *Dipus sagitta*, *Dryomys nitedula*).

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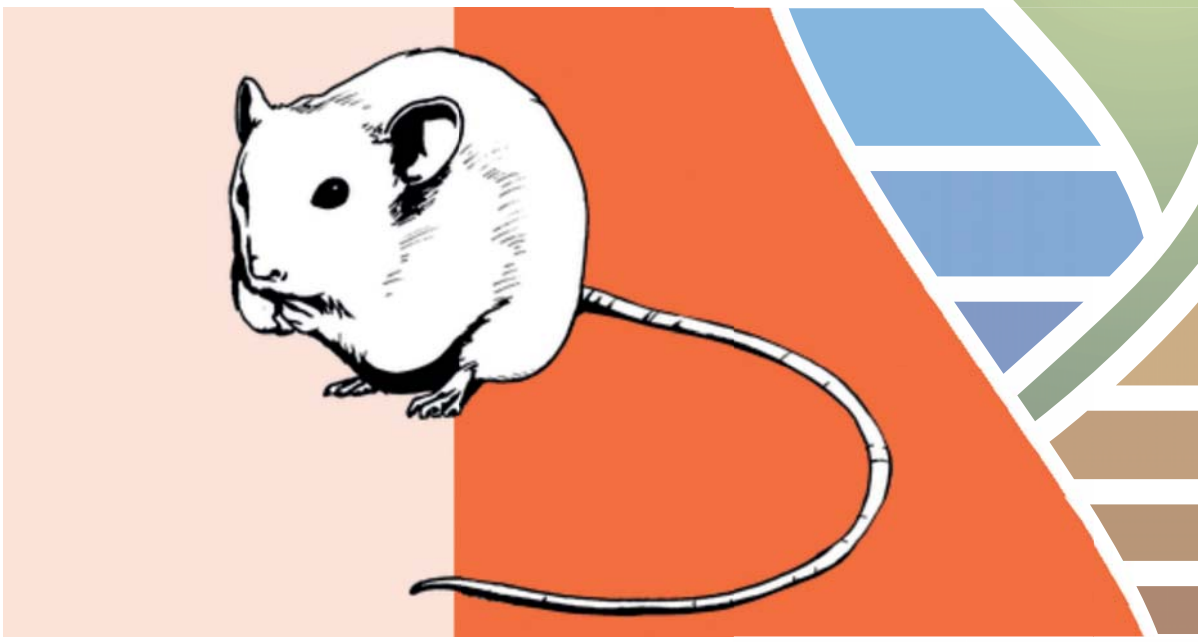

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