

KARST RESEARCH INSTITUTE ZRC SAZU



**INQUA Section on European Quaternary Stratigraphy**

# **Quaternary Stratigraphy in Karst and Cave Sediments**



**PROGRAM & ABSTRACTS & GUIDE BOOK**

Postojna, 2018

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## New finds of *Mimomys* in the Late Pleistocene cave deposits in Russia

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### Session 1: Poster

In the material obtained as a result of paleontological excavations in the Tetyukhinskaya Cave (Middle Sikhote-Alin, 44°35'N, 135°36'E) of Primorsky Krai (Russian Far East), three isolated teeth belonging to the representative of the genus *Mimomys* were found. All the discoveries of *Mimomys* were made in pits laid in the entrance grotto. All the pits were dug to the rocky bottom. On an isolated tooth of an Asian black bear (depth 40–50 cm), similar in preservation and colour to the *Mimomys* teeth, a radiocarbon date of  $39874 \pm 133$  BP (NSK–850, UGAMS–21786) was obtained by accelerated mass spectrometry (AMS) (Kosintsev et al., 2016). Of all the radiocarbon dates obtained, this is the oldest. This is the second find of a representative of this genus in cave deposits in the Russian Far East. For the first time this genus was recorded in the region from the Late Pleistocene strata of the Medvezhyi Klyk Cave deposits (Tiunov et al., 2016).

From other small mammals in the sediments of these caves, bone remnants of the Siberian flying squirrel (*Pteromys volans*), Eurasian red squirrel (*Sciurus vulgaris*), Siberian chipmunk (*Eutamias sibiricus*), Korean field mouse (*Apodemus peninsulae*), brown rat (*Rattus norvegicus*), greater long-tailed hamster (*Tscherskia triton*), zokor (*Myospalax psilurus*), grey red-backed vole (*Craseomys rufocanus*), northern red-backed vole (*Clethrionomys rutilus*), wood lemming (*Myopus schisticolor*), reed vole (*Alexandromys fortis*), Maximowicz's vole (*A. maximowiczii*), tundra vole (*A. oeconomus*), and Mongolian vole (*A. mongolicus*) were found.

The presence of fauna at that time that were forest species and species that hunt mainly in open spaces shows the distribution of savannah-like landscapes typical of the outskirts of the mammoth steppe. A similar finding was made recently and in the Urals in the Bosonogaya Cave. In the early Holocene sediments, only one m1 of *Mimomys* was found along with thousands of early Holocene small mammals. Near the cave for hundreds of kilometers there are no deposits of this age. . If the Early Pleistocene forms in the Altai (Serdyuk, Tesakov, 2006) are confined to the layers directly at the rock bottom of the cave and may be the remnants of the oldest deposits, the Late Pleistocene age of the deposits of the caves of the Far East Russia and the Holocene of the Urals, in which the remnants of *Mimomys* were discovered, is beyond doubt. The presence in the Late Pleistocene strata of representatives of the genus *Mimomys*, whose last finds were known only from the Middle Pleistocene, significantly increases the period of existence of this genus in individual refugiums. At the same time, we do not completely exclude the possibility of any redeposits or accidental drifts of bird tours to these caves. Perhaps subsequent studies of fossil fauna will solve this problem.

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