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A NEW SMALL MAMMAL FAUNA FROM THE LOWER TUROLIAN (11 MN) OF THE SOUTHERN UKRAINE

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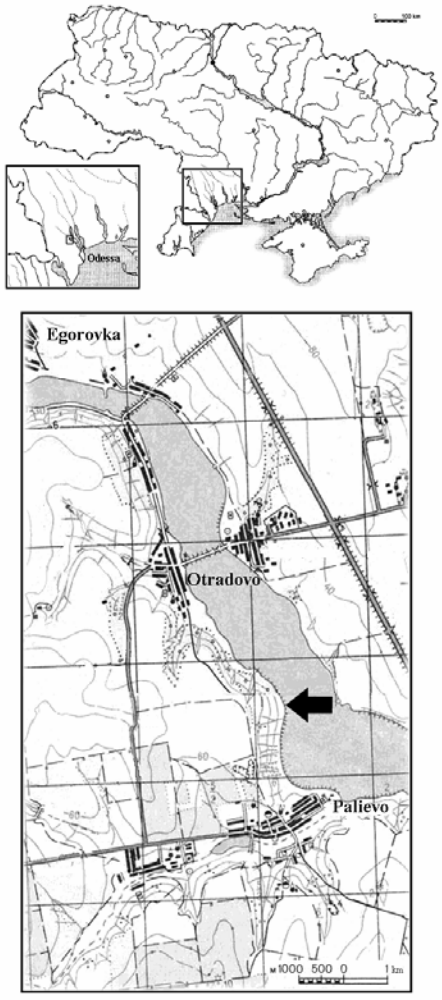
A new locality of Early Turolian small mammals, Palievo (Southern Ukraine), is briefly described. The fauna of the bonebearing layer is preliminary dated to the end of the Early Turolian (MN 11).Taxonomic composition of the micromammal fauna from Palievo is presented and compared with other contemporary European localities.

The locality is situated in a narrow continental sedimental section, probably Upper Sarmatian (Khersonian) age, which is exposed in the Khadzhibeyski liman right bank between the villages of Palievo and Otradovo (Odessa region, Ukraine). The geological structure of location was not studied in detail. According to data of preliminary observation we indicated there was a section of greenish and yellowish clays with bands of fine-grained sand and gravel lenses which contain current oryctocenosis. The above-mentioned strata cowered by oolitic limestone and greenish-clays. Presence of brackish limestone and heterogeneity of facial structure suggests alluvial-riverine genesis of location, which occurred in unstable coastal zone of Sarmatian Basin.



Location map of Palievo locality in Ukraine.

The greatest occurrences of osteological elements were yielded from several lenses of yellowish clayey gravel. It is represented mainly by isolated teeth, bones of postcranial skeleton and rarely by fragments of upper and lower jaws. Apart from micromammalian bones some teeth of small Mustelids, Gazellins and *Hipparion* jointly with bones of fishes, amphibians, reptiles and clamshells of freshwater mollusks (substantially Planorbids, Lymnaeids and Unionids) were yielded here. These fossils have been collected since the early autumn of 2008.

The following taxa of small mammals were recognized in Palievo locality: Lipotyphla: *Schizogalerix* sp., *Archaeodesmana* sp., Urotrichini gen., *Paenelimnoecus* sp., *Sulimskia* sp., Anourosoricini gen., *Amblycoptus* sp. Chiroptera: Microchiroptera gen. Lagomorpha: *Prolagus* cf. *crusafonti, Proochotona eximia*, *Ochotona* sp. Rodentia: *Pliopetaurista* sp., *Sciurotamias* sp., *Muscardinus* sp., *Glirudinus* (ad. lib. *Vasseuromys*) sp., *Lophocricetus* aff. *complicidens*, *Euroxenomys* sp., *Hansdebruijnia* aff. *perpusilla*, *Apodemus* aff. *barbarae*, *Kowalskia progressa*, *Stylocricetus* sp.

There is no doubt that the presented complex shows a gliroid-insectivore community, dominant group of which was composed with dwarf hamsters of genus *Kowalskia* and mice of genera *Hansdebruijnia* and *Apodemus*. Insectivores, pikas and Glirids are very common.

Taxonomical composition of micromammals from Palievo is close to fauna of Teruel-Alfambra region in Spain (specifically Los Mansuetos 2 and Masada Ruea 3) which is traditionally correlated with MN 12a (Van Dam J. A. et al.,

2001). Small mammal complexes from lower Turolian (MN 11) Vienna Basin deposits of Germany (Dorn-Dürkheim 1) and Austria (Eichkogel, Kohfidisch) are more close to fauna of the present locality (Bachmayer F. & Wilson R. W., 1968, 1977, 1980; Daxner-Höch G. & de Bruijn H., 1981; Daxner-Höch G., 2004a; Ziegler R. & Daxner-Höch G., 2005; Ziegler R. et al., 2005; Ziegler R., 2006). However, the zoogeographic differences and great share of asiatic elements presents obstacles to its immediate correlation.

In paleotheriological gradations of Eastern Paratethys, fauna of Palievo locality is similar to small mammals associations of Berislavski faunistical complex final phase (Early Turolian MN 11) (Nesin V. A. & Nadachowski A., 2001). On other hand the sarmatian associations of Southern Bug river (Mikhailovka-1 and 2) is somewhat older. Considerable proportion of identical taxonomical groups (e.g. *Kowalskia progressa* among Cricetids, *Lophocricetus compicidens* among Dipodids and *Apodemus barbarae* among Murins) liken faunas of Palievo and Novoelizavetovka-2 (Nesin V. A. & Storch G., 2004, Topachevski V. A. et al., 2001a). Presence of true pikas and mice of genus *Hansdebruijnia* in evolution stage *Hansdebruijnia perpusilla* makes closer faunas of Palievo and Frunzovka-2 (Nesin V. A. & Nadachowski A., 2001; Nesin V. A. & Storch G., 2004)

From a paleoecology point of view the Lower Turolian second half of Eastern Paratethys is characterized by a distinct increase in species indicating of strong climate aridity (Nesin V. A., 1996; Nesin V. A. & Nadachowski A., 2001). The assemblage of small mammals from the Palievo locality is of special interest because of terrestrial moisture loving species of greater variety (e.g. gymnure, and urotrichine among insectivores, flying-squirrels and *Glirudinus*-like dormice among rodents) which is not typical in above-mentioned associations from Novoelizavetovka-2 and, especially Frunzovka-2.

Small mammal complex which when studied may be correlated to adequate Turolian faunas of Eastern Paratethys. Thus it takes its place in stratigraphic sequence of Lower Turolian second part (11 MN). In ecological aspect fauna of Palievo locality shows short-term period of climate humidification that was accompanied with expansion of mesophilous biotopes that existed in zone of semiarid steeps and savannas.

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