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First record of *Sinanodonta woodiana* (Lea, 1834) (Bivalvia: Unionidae) in Moldova

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Abstract

The living individuals of Chinese pond mussel *Sinanodonta woodiana* (Lea, 1834) (Bivalvia: Unionidae) has been recorded for the first time in Moldova, in July 2008, from Lake Beleu, Prut River basin. Perhaps, this invasive species entered the Prut River basin from the Romanian and (or) Ukrainian territory where it was found earlier.

Key words: *Sinanodonta woodiana*, Unionidae, Chinese pond mussel, living individuals

The living individuals of Eastern Asiatic freshwater clam *Sinanodonta woodiana* (Lea, 1834) were found in Lake Beleu (latitude 45,5873 N, longitude 28,1545 E) in July 2008 (Figure 1). This East Asian species appeared in Europe accidentally with the herbivorous cyprinid fishes from China. The first specimens of *S. woodiana* in Europe were collected in Romania in 1979 from fish farm (Sarkany-Kiss 1986).

Lake Beleu belongs to the Prut River basin (Figure 2). The Prut flows into the Danube in 174 km from the mouth and represents the last largest left tributary of this river. Beleu is a relict lake it is about 5000-6000 years old. The average length - 5 km, width - 2 km, while depth range from 0.5 up to 2 m. This is a shallow lake with high quantity of suspended matter and very muddy bottom. The water level fluctuates and depends on hydrological situation in the Danube and Prut Rivers. During the summer the water temperature can exceed 30 C.

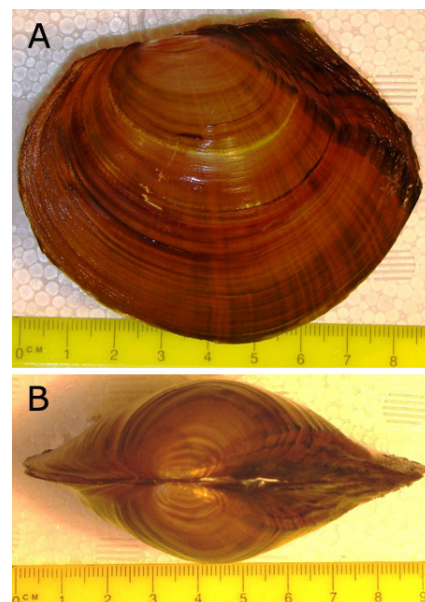


Figure 1. *Sinanodonta woodiana* from Lake Beleu. A - side view, B - dorsal view (Photograph by N.I. Zubcov)

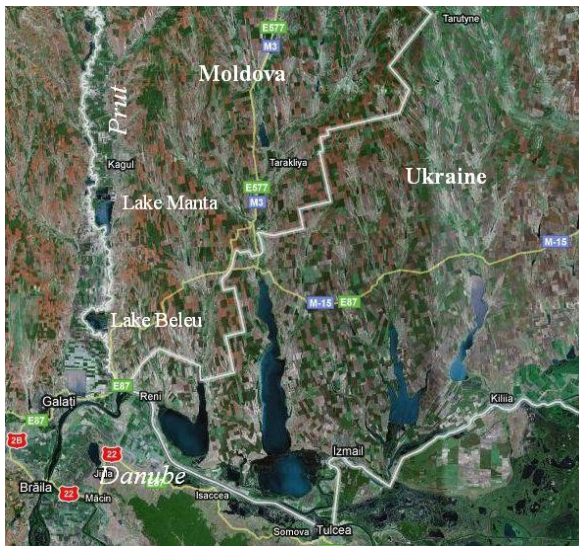


Figure 2. Location of Lake Belevu and Manta. Used a fragment of Google maps

The malacofauna of Lake Belevu is rather diverse and includes more than 20 species of Gastropoda and Bivalvia. Most numerous species are *Viviparus contectus* (Millet, 1813), *Lymnaea stagnalis* (Linne, 1758) from Gastropoda and *Anodonta piscinalis* (Nilsson, 1822), *Unio tumidus* (Philipsson, 1788) from Bivalvia.

In 1998 *S. woodiana* was collected in Harsova (Danube) Romania. (Skolka and Gomoiu 2001). In 1999 this species) was collected in the Danube-Sasyk canal in the South-West Ukraine. (Yurishinets and Korniusushin 2001). This was the indication of the presence of *S. woodiana* in Moldavian waters.

During 2003, we found two empty shells of *S. woodiana* in the Lake Manta, which is located upstream of Lake Belevu (Lake Manta coordinates: latitude 45,8342 N, longitude 28,1778 E). These lakes are located near the Danube Delta (Figure 2) and area is an important bird corridor (Munteanu et al. 2006). Thus, it can be assumed that bird migration (Harchenko 1995) could be a possible vector of *S. woodiana* invasion in Moldavian water basins, but invasion with Danube River water intrusions is also possible.

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