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2.2.2 – Article title: *New data on aquatic alien invertebrates in the Ukrainian Danube Delta with special emphasis on the first records of the trumpet ram's-horn, *Menetus dilatatus* (Gould, 1841)*

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Abstract: Studies of alien aquatic invertebrates in 2021–2022 covered fresh marine and transitional waters mostly within the boundaries of the Danube Biosphere Reserve. As a result of these studies, important new findings of six species of aquatic macroinvertebrates were obtained: *Menetus dilatatus* (Gould, 1841) is first indicated for the Danube Basin, and three marine species (*Arcuatula senhousia* (Benson, 1842), *Polydora cornuta* Bosc, 1802 and *Streblospio gynobranchiata* Rice & Levin, 1998) for the first time for Ukrainian Danube Delta. For two species (*Pectinatella magnifica* (Leidy, 1851) and *Ferrissia californica* (Rowell, 1863)), new localities were found within the delta. In the case of *M. dilatatus*, the pathway of entry into the Danube Delta is an absolute mystery. The most likely pathway of dispersal of this species is natural dispersion, both along the river network and associated with waterfowl, however, the large distance between the Danube Delta and the nearest locations in Western Ukraine makes direct transportation unlikely. In all probability, the similarity of this species with local species leads to the formation of cryptic populations, not identified by researchers, which may be intermediate stages of species expansion towards the Northern Black Sea area.

Key words: alien species, invasive species, deltaic zones, Ukraine, Mollusca, Polychaeta, Bryozoa

Introduction: The Danube Delta is one of the key points for the study of aquatic invasions on a European scale. The Danube River, connected by a navigable canal to the Rhine Basin, forms a large-scale route for the dispersal of alien species, the Southern Invasion Corridor (Bij de Vaate et al. 2002; Roche et al. 2013). This is part of a network of such corridors that together connect most of Europe's major river basins (Galil et al. 2008; Leuven et al. 2009; Panov et al. 2009; Son et al. 2020).

At the same time, the Danube Delta, together with many adjacent large lakes, lagoons, and desalinated sea areas, is one of the principal invasion gateways – areas at the border of freshwater and marine ecosystems, where the penetration and subsequent adaptation of brackish-water species into river basins occurs (Panov et al. 2009).

(...)

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Common borders. Common solutions.



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