

Description of *Bithynia gonensis* sp. nov. (Gastropoda: Bithyniidae) from Gönen Çayı, north-western Türkiye

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Abstract. This study aims to reveal the freshwater mollusc assemblages from 6 sites sampled along Gönen Çayı, a stream which flows into the southern Marmara Sea in north-western Türkiye. The stream was sampled using the multi-habitat sampling method with a hand net. Ten species of freshwater molluscs, most of which are widely distributed in Türkiye, were found in the study area. Among these taxa was an unidentified species of *Bithynia*, which was only present at 1 site. Its shell and anatomy were compared with other *Bithynia* species from Türkiye and neighbouring countries and found to differ, which revealed that it is a new species. The discovery of the new species increases the diversity of *Bithynia* in northern Türkiye to 4 species, and to 11 species for Türkiye. This paper highlights the diversity and endemism of freshwater molluscs in Türkiye and emphasizes the need for further research on the distribution of bithyniid species in the country.

Key words. Mollusca, freshwater basin, southern Marmara Sea, Truncatelloidea, endemic species

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Introduction

The family Bithyniidae Gray, 1857 has finely striate shells, which can be conical, elongate-conical, conical-globular, or globular and possess a calcareous, concentric operculum (GLÖER 2019). There are 2 genera of Bithyniidae in Europe, and they are known for their high species richness, particularly in Mediterranean countries such as Greece, Montenegro, and North Macedonia (GLÖER & PEŠIĆ 2007, GLÖER & MAASSEN 2009, GLÖER et al. 2010, 2015, SLAVEVSKA-STAMENKOVIĆ et al. 2021, RAKOVIĆ et al. 2022). Outside of Europe, 9 bithyniid species have been documented in Iran (GLÖER & PEŠIĆ 2012).

In Türkiye, 9 species of *Bithynia* spp. and 5 *Pseudobithynia* have been recorded so far. Most of these are endemic. Until the study by GLÖER & YILDIRIM (2006), only a few *Bithynia* species had been reported from Türkiye. These included *B. leachii* (Sheppard, 1824) and *B. tentaculata* (Linnaeus, 1758), both of which are widespread and mainly European (SCHÜTT 1987). A well-known endemic, *B. pseudemmericia* Schütt, 1964, is widespread in Göller Yöresi (the Turkish Lakes Region) (YILDIRIM 2004, ZEYBEK et al. 2012, YILDIRIM & GÜRLEK 2019, GÜMÜŞ et al. 2022). In addition, *B. pesicii* Glöer

& Yıldırım, 2006, *B. yildirimii* Glöer & Georgiev, 2012, *B. timmii* D.A. Odabaşı & Arslan, 2015, and *B. kayrae* S. Odabaşı & D.A. Odabaşı, 2017 are a group of species with more restricted distributions (GLÖER & YILDIRIM 2006, GLÖER & GEROGIEV 2012, ODABAŞI & ARSLAN 2015, ODABAŞI & ODABAŞI 2017). Moreover, 5 species of *Pseudobithynia*—*P. pantheri* Odabaşı & Arslan, 2015, *P. yildirimi*, *P. adiyamanensis* Gürlek, 2017, *P. guldeni* Gürlek, 2017, and *P. cocussusica* Gürlek, 2018—have also been described from Türkiye and occur within a narrow area (GLÖER & YILDIRIM 2006, GLÖER & GEROGIEV 2012, GÜRLEK 2017, 2018, 2019). However, the presence in Türkiye of 3 *Bithynia* species, *B. leachii*, *B. phialensis* (Conrad, 1852), and *B. badiella* (Küster, 1853), are uncertain (GÜRLEK et al. 2019).

This study describes a new species of *Bithynia* found at 1 of the study sites in Gönen Çayı, a stream which flows into the Marmara Sea. The new species is compared with *B. timmii*, *B. kayrae*, and *B. alii* D.A. Odabaşı, 2023 from nearby areas, as well as congeners from the closest neighbouring countries. The other 9 species are also reported.

This study was conducted in September 2023 at 6 sampling stations along Gönen Çayı, which flows into the