Brève note – *Short note*
First record of the family Hygrobiidae (Coleoptera: Adephaga) from Turkey

**Abstract.** With the discovery of *Hygrobia hermanni*, the family Hygrobiidae is reported for the first time from Turkey. An illustration of the habitus and line drawings of diagnostic characters are provided.

**Keywords:** Water beetles, *Hygrobia hermanni*, Turkey.

The Hygrobiidae is one of the small families of predaceous beetles whose larvae and adults live mainly in stagnant water. The family contains a single genus, *Hygrobia* and six species: one European and North African (*Hygrobia hermanni* Fabricius 1775), one Chinese (*H. davidi* Bedel 1883), and four Australian (*H. australasiae* Clark 1862; *H. maculata* Britton 1981; *H. nigra* Clark 1862; *H. watsonii* Hendrich 2001 (Dettner 1997; Hendrich 2001).

Balfour-Brown (1940), Bertrand (1954), Franciscolo (1979), and Holmen (1987) described the morphology and summarized the biology of the species.

**Material and methods**
The specimens were collected during October 2001, May 2003, and April 2005 from Bozalan Pond, in the Izmir province on the Asian part of Turkey. The samples were collected by ladle and net with a mesh diameter of 0.5 mm. The beetles were killed within 70% alcohol solution. Genitalia were dissected under the stereomicroscope. The illustrations of genitalia were prepared using a Bausch & Lomb stereomicroscope.

The materials are stored in Ege University, Faculty of Fisheries Museum (ESFM), Izmir.

**Results**

**Hygrobiidae Ganglbauer 1892**

*Hygrobia hermanni* (Fabricius 1775)

**Short description of the Turkish material:** Body 9.0–11.2 mm long, 4.6–5.2 mm wide; (body length/maximum body width) = 1.96–2.15; oval to elongate-oval; dorsal and ventral surfaces strongly convex; upper surfaces of body glabrous; antennae 11-segmented; filiform; mandibular prosthecae absent (Figure 1). Prothorax shorter than wide and with notopleural sutures; metaventrite with a transverse groove; elytra glabrous, with large black spots reaching the anterolateral portions, ventral side reddish; most of ventral surface with very dense punctuation; legs largely dark yellowish and swimming hairs on femora, tibiae, and five-segmented tarsi; claws of mid leg tarsi not appendaged; hind tarsi longer than tibiae; tarsal claws simple; penis and parameres symmetrical; apical area of penis (side view) gradually curved backward, apex with distinct indentation (Figure 2).


**Ecological notes:** The Bozalan Pond is a small pond and situated 610 m above sea level. The bottom of the pond was muddy with rich vegetation. The pond has approximately 1.0–1.5 m of depth and 0.5 ha surface area. Some of the physico-chemical characteristics of Bozalan Pond were as follows: Temp., 16.0–26.2 °C; pH, 8.57–8.89; salinity, 0.0–0.2 ppt; D.O., 7.3–9.4 mg/l; oxygen saturation, 96–103 %; conductivity, 91.1–119.5 μS25 °C.

**Distribution:** Central, Western and Southern Europe, North Africa (Morocco, Algeria, Tunisia), USSR (only in the western Ukraine) (Balfour-Browne,1940; Guignot, 1947; Zaitsev, 1972; Franciscolo, 1979; Holmen, 1987; Dettner, 1997).

**Conclusion.** In this study *H. hermanni*, which is known up until now in the Europe and North Africa, is also recorded for the first time in Asia. It is also the first record of the family Hygrobiidae for the Turkish fauna. Beside the morphological parameters of the species, ecological parameters of the sampling area given.

E-mail: esat.tarik.topkara@ege.edu.tr, suleyman.balik@ege.edu.tr
Accepté le 31 janvier 2008
References


