Zootaxa 2033: 1–12 (2009)
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

Five new species of the *longulus*-group of *Hydroporus* Clairville, 1806 from north-eastern Turkey (Coleoptera: Dytiscidae)

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Abstract

Hydroporus artvinensis **sp. n.**, *H. cagrankaya* **sp. n.**, *H. lundbergi* **sp. n.**, *H. sivrikaya* **sp. n.**, and *H. toledoi* **sp. n.** (Coleoptera: Dytiscidae) are described from north-eastern Turkey. All five species belong to the *longulus*-group of *Hydroporus* Clairville, 1806. They are externally very similar and only the males can be distinguished with certainty by the shape of their aedeagi. These are figured for all five new species, together with the female genitalia of *H. cagrankaya* **sp. n.** The males of the species have the pro- and mesotarsi provided with sucker cups, what is demonstrated for *H. cagrankaya* **sp. n.** by some SEM photos. The DNA of this species was also studied; the results suggest a close relationship with *H. dobrogeanus* Ieniştea, 1962, *H. gueorguievi* Wewalka, 1975, *H. kraatzii* Schaum, 1868, and *H. sardomontanus* Pederzani, Rocchi & Schizzerotto, 2004.

The present data indicate an allopatric distribution for the new species, each occurring in a rather restricted area. Except *H. artvinensis* **sp. n.**, they have been found on the northern slope of the Doğu Karadeniz Dağlari, a mountain range south of the coast of the Black Sea. The number of Turkish Dytiscidae is raised to about 145 species and that of the endemic taxa to 23. The total number of the members of the *longulus*-group increases from 18 to 23 species. Finally, some new records are presented for *H. erzurumensis* Erman & Fery, 2000.

Key words: Coleoptera, Dytiscidae, *Hydroporus*, *longulus*-group, new species, new records, Turkey

Introduction

The Turkish fauna is relatively rich in Dytiscidae and endemic species are numerous. According to the Catalogue of Palearctic Dytiscidae (Nilsson 2009) about 140 species and subspecies have been recorded from Turkey, and among these are 18 endemic taxa. The majority of them—ten species—belong to *Deronectes* Sharp, 1882 (Wewalka 1971a, 1989; Fery & Brancucci 1997; Fery & Hosseinie 1998; Fery et al. 2001). Four *Hydroporus* Clairville, 1806 are endemic for Turkey; these are *Hydroporus askalensis* Wewalka, 1992 of the *planus*-group of species; *Hydroporus neclae* Erman & Fery, 2006 of the *memnonius*-group; and *Hydroporus anatolicus* J. Balfour-Browne, 1963, plus *Hydroporus erzurumensis* Erman & Fery, 2000 of the *longulus*-group. For the sake of completeness, we add the other four endemic taxa: *Bidessus anatolicus anatolicus* Wewalka, 1971b; *Graptodytes veterator behningi* Zaitzev, 1927; *Hygrotus ahmeti* Hájek, Fery & Erman, 2005; and *Ilybius wewalkai* (Fery & Nilsson, 1993).

With respect to species richness and the high degree of endemicity, Turkey can be compared with the Iberian Peninsula with about 150 Dytiscidae recorded, of which 38 are endemic (Fery & Fresneda, 2007) with their majority belonging also to the genera *Deronectes* and *Hydroporus*. Both areas have many mountains which, in part, are isolated one from the other by non-mountainous regions of lower altitude. Members of the *longulus*-group inhabit small springs, bogs, and seepages at high altitude and can often be found in the muddy areas beside the flowing or standing water. Most members of *Deronectes*—in particular the endemic

Accepted by I. Ribera: 10 Dec. 2008; published: 11 Mar. 2009