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Article



Microdytes Balfour-Browne of India with description of three new species (Coleoptera: Dytiscidae: Hydroporinae)

KELLY B. MILLER¹ & GÜNTHER WEWALKA²

¹Department of Biology and Museum of Southwestern Biology, University of New Mexico, MSC03 2020 Albuquerque, NM 87131–0001 USA. E-mail: kbmiller@unm.edu ²Starkfriedgasse 16/1/3, A–1190 Vienna, Austria. E-mail: g.wewalka@gmx.at

Abstract

Three new species in the genus *Microdytes* Balfour-Browne (Coleoptera: Dytiscidae) are described from southwestern India: *M. cameroni* **n. sp.**, *M. svensoni* **n. sp.** and *M. whitingi* **n. sp.** A key to the ten species of the genus *Microdytes* currently known from India is provided, and some new records of Indian *Microdytes* are given.

Key words: Diving beetles, classification, taxonomy, zoogeography

Introduction

Microdytes Balfour-Browne is a species-rich genus with members occurring throughout southern and southeastern Asia from Nepal to southern India to southern China, southern Japan, Philippines and Indonesia. Prior to this paper there were 36 described species. The genus was revised by Wewalka (1997) who added 21 new species to the nine known prior to his work. Four additional new species were described by Wewalka (1998) and Wewalka & Wang (1998). Wewalka, Ribera & Balke (2007) and Bian & Ji (2009) recently added two new species.

Until now six species of *Microdytes* have been recorded from India: *M. belli* J. Balfour-Browne, *M. boukali* Wewalka, *M. championi* J. Balfour-Browne, *M. maculatus* (Motschulsky), *M. sabitae* Vazirani and *M. schoenmanni* Wewalka. Recently, *M. elgae* Hendrich, Balke & Wewalka has been discovered to occur in India by Jiří Hájek, Prague (personal communcation). This, along with the three new species described below, results in ten species of *Microdytes* known from India.

The genus *Microdytes* is characterized within Hyphydrini by 1) narrow metasternal wings, 2) the ventrolateral elytral carina short and with a single lobe, 3) the prosternal process reaching the metasternum, 4) the pronotum with the posterior angles not extending posterad, 5) the elytron without dorsal carinae, 6) the medial portion of the metacoxae with a small angle or process extending over the base of the metatrochanter and 7) a small angulate process near the base of the prosternal process. The species are small (1.30–2.50 mm), and they are generally collected in small springs or streams, or sometimes in rock pools.

Material and methods

Measurements. Measurements were taken with an ocular scale on a Wild M3C dissecting microscope. Intact specimens were measured, and an attempt was made to measure the largest and smallest specimens available. Measurements include: 1) total length (TL), 2) greatest width (GW); the ratio TL/GW is also provided. The terminology to denote the orientation of the genitalia follows Miller & Nilsson (2003)

Material. The study material which consists of about 425 specimens is deposited in the following institutions and private collection: