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Eight new species, a new record, and redescription of the genus *Discoxenus* Wasmann, 1904: The first record of termitophilous rove beetles in Cambodia (Coleoptera: Staphylinidae: Aleocharinae)

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Abstract

As the first record of the Cambodian termitophilous rove beetles, eight new species of the genus *Discoxenus* Wasmann, 1904 (Aleocharini: Compactopediina) are described, along with a redescription of the genus. *Discoxenus katayamai* Kanao & Maruyama, 2010, which was originally known from Thailand, is newly recorded from Cambodia and redescribed. *Discoxenus* species are morphologically divided into two species groups, namely the *latiabdominalis* and the *assmuthi*. The *latiabdominalis* species group includes *D. latiabdominalis* **n. sp.** and *D. cambodiensis* **n. sp.**, and both species are associated with *Odontotermes maesodensis* Ahmad, 1965. The *assmuthi* species group comprises 11 species: *D. assmuthi* Wasmann, 1904, *D. lepisma* Wasmann, 1904, *D. indicus* Kistner, 1982, *D. malaysiensis* Kistner, 1982, *D. phourini* **n. sp.**, *D. kohkongensis* **n. sp.**, *D. hirsutus* **n. sp.**, *D. minutus* **n. sp.**, *D. lucidus* **n. sp.**, *D. kakizoei* **n. sp.**, and *D. katayamai*. The members in the *assmuthi* species group are associated with *Odontotermes* or *Hypotermes* termites. One of the unique morphological features of the *assmuthi* species group is the strongly developed distal crest of the male aedeagal median lobe while that observed in the *latiabdominalis* species group is not produced, which is general character state in the tribe Aleocharini. The character state of distal crest and several other morphological features such as mouthparts are considered to support the monophyly of respective species groups in *Discoxenus*.

Key words: host specificity, *Hypotermes*, Macrotermitinae, *Odontotermes*, species group, termitophily

Introduction

The subfamily Aleocharinae (Coleoptera: Staphylinidae) includes various termitophilous species. Several aleocharine tribes and subtribes are exclusively composed of termitophilous species (Seevers 1957; Kistner 1969), and one of the termitophilous taxa is the subtribe Compactopediina Kistner, 1970 of the tribe Aleocharini. The Compactopediina comprises of five genera and 12 species of termitophiles from the Indo-Malayan region (Wasmann 1904, 1916; Kistner 1970, 1982; Kanao *et al*. 2010, 2011). The genus *Discoxenus* Wasmann, 1904 includes eight species that are distributed throughout India, Myanmar and Malaysia (Wasmann 1904, 1916; Kistner 1982; Kanao *et al*. 2010). All currently described *Discoxenus* species are associated with *Odontotermes* termites (Termitidae: Macrotermitinae).

Termitophilous rove beetles, together with termites, exhibit high species diversity in tropical regions, although many countries within these regions remain poorly studied. In 2012 and 2014, we conducted field surveys in one of these uninvestigated countries, Cambodia. During the surveys, nine species of *Discoxenus* were collected from nests of *Odontotermes maesodensis* Ahmad, 1965, *O. proformosanus* Ahmad, 1965, *Hypotermes makhamensis* Ahmad, 1965, and *H.* cf. *xenotermitis* (Wasmann, 1896). Detailed morphological observations revealed that eight of these species had not been described; the other species, *D. katayamai* Kanao & Maruyama, 2010, which was

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