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Article

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Cephennomicrus Reitter (Coleoptera, Staphylinidae, Scydmaeninae) of Japan and Taiwan: taxonomic notes, ten new species and comparative morphology of *nomurai* and *taiwanensis* species groups

PAWEŁ JAŁOSZYŃSKI
Os. Wichrowe Wzgórze 22/13, 61–678 Poznań, Poland. E-mail: scydmaenus@yahoo.com

Table of contents

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Abstract

Cephennomicrus Reitter, 1907 (Staphylinidae, Scydmaeninae, Cephenniini) of Japan and Taiwan is revised. Four species groups are established for the following species: the *nomurai* group—*C. nomurai* (Jałoszyński & Hoshina, 2003) (Japan), *C. hobbiti* (Jałoszyński & Hoshina, 2003) (Japan), *C. disjunctus* (Jałoszyński, S. Arai & K. Arai, 2004) status n. (Japan), *C. inflatus* **sp. n.** (Taiwan), and *C. crucifer* **sp. n.** (Taiwan); the *taiwanensis* group—*C. taiwanensis* (Jałoszyński, 2004) (Taiwan), *C. iriomotensis* **sp. n.** (Japan), *C. nagoanus* **sp. n.** (Japan), *C. tsurui* **sp. n.** (Taiwan), *C. delicatissimus* **sp. n.** (Taiwan), and *C. imago* **sp. n.** (Taiwan); the *japonigenus* group—*C. japonigenus* (Jałoszyński & Hoshina, 2003) (Japan), and *C. pseudojaponigenus* **sp. n.** (Japan); the *fujianus* group—*C. fujianus* (Jałoszyński, 2005) (from China, not treated in this paper), and *C. pseudofujianus* **sp. n.** (Taiwan). Three species remain *incertae sedis* within the genus: *C. okinawanus* (Jałoszyński, S. Arai & K. Arai, 2004) (Japan), *C. cactiformis* (Jałoszyński & Hoshina, 2003) (Japan), and *C. taitungensis* **sp. n.** (Taiwan). Habitus of all treated species and aedeagi are illustrated. Detailed morphology of the *nomurai* and *taiwanensis* species groups was studied, described and illustrated based on disarticulated specimens of *C. nomurai* and *C. delicatissimus*. Comparative study suggests a separate position of the *nomurai* group as a subgenus or genus; however, Oriental *Cephennomicrus* must be studied in detail before formal taxonomic changes can be made.

Key words: Coleoptera, Staphylinidae, Scydmaeninae, Cephenniini, *Cephennomicrus*, new species, Oriental, Eastern Palearctic, Japan, Taiwan

Introduction

Cephennomicrus Reitter, 1907 comprises the smallest scydmaenine beetles of the tribe Cephenniini, commonly as small as 0.6–0.7 mm. Representatives of this genus are rarely collected, and many species are known only from holotypes, which makes study of their detailed morphology very difficult. Taxonomy and morphology of *Cephennomicrus* was reviewed recently by Jałoszyński (2008), and a world checklist of species was provided. Since then, one more species, *C. simplex* Jałoszyński & Nomura, 2008, was described from W Malaysia. The genus is morphologically very diverse compared to other Cephenniini, and since its representatives are very rare, details of morphology of *Cephennomicrus* remain largely unstudied.

Thanks to the kindness of a number of colleagues, especially Japanese entomologists, new materials from SE Asia were made available for my study. In this paper, species of *Cephennomicrus* occurring in Japan and Taiwan are treated. Up to date, only six species and one subspecies were reported from this area: *C. nomurai* (Jałoszyński & Hoshina, 2003) (Japan: Iriomote-jima Is. and Ishigaki-jima Is.), *C. hobbiti* (Jałoszyński & Hoshina, 2003) (Japan: Ishigaki-jima Is.), *C. japonigenus* (Jałoszyński & Hoshina, 2003) (Japan: Tokunoshima Is.), *C. cactiformis* (Jałoszyński & Hoshina, 2003) (Japan: Tsushima Is.), *C. okinawanus* (Jałoszyński, S. Arai & K. Arai, 2004) (Japan: Okinawa Is.), *C. nomurai disjunctus* (Jałoszyński, S. Arai & K. Arai, 2004) (Japan: Okinawa Is.), and *C. taiwanensis* (Jałoszyński, 2004) (Taiwan: Taipei County). A number of new species is described below, and four species groups are proposed for *Cephennomicrus* occurring within the studied area. Moreover, a comparative, detailed morphology of two largest and most distinct species groups is presented and discussed.

Methods

Dry-mounted specimens were relaxed in warm water and dissected; when necessary body parts were macerated in 10% solution of potassium hydroxide and stained with glycerol solution of chlorazol black. Structures of the skeleton were studied in glycerol or Canada balsam under BX51 Olympus microscope. The measurements and abbreviations used in the text are as follows: body length (BL) is a sum of lengths of the head, pronotum and elytra measured separately; length of head (LH) was measured from a hypothetical line joining posterior margins of eyes to anterior margin of the frontoclypeal area; width of head (HW) includes eyes; length of antennae (AnL) was measured including the basal part of the scapus concealed under the