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Three new species of the genus *Corymbitodes* Buysson, 1904 from Nepal and India with a description of the male of *Corymbitodes kambaitiana* Fleutiaux, 1942 (Coleoptera: Elateridae)

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Abstract

In the present paper we introduce three new species of the genus *Corymbitodes* Buysson, 1904 from Nepal and from Northern India and provide the description of the male of *C. kambaitiana* Fleutiaux, 1942. No species of *Corymbitodes* was recorded from Nepal or India previously. The new species are *C. bengalensis* sp. nov. (India), *C. chassaini* sp. nov. (India), *C. nepalensis* sp. nov. (Nepal). *C. kambaitiana* Fleutiaux, 1942 was originally described based on female material from Myanmar. Here we describe the male based on material from Ganesh Himal in Nepal.

Key words: entomology, taxonomy, *Corymbitodes* Buysson, new species, South Asia

Introduction

Species of the genus *Corymbitodes*, 1904 are currently known from the Palearctic region: Siberia, Tadjikistan, Myanmar, China, Japan, and Taiwan, and from the Nearctic region: United States of America and Canada. Schimmel & Tarnawski (2015, in press) provided the first survey of the species of this genus from China and described 19 species as new to science. Here, we describe the first species of *Corymbitodes* recorded from Nepal and India. Also, the new records extend the occurrence of this genus to include the region of Himalaya. During our studies we noticed a close compatibility between the occurrence of *Corymbitodes* and the high mountains in the eastern Palearctic. Most probably, all members of *Corymbitodes* live in montane habitats: subalpine, alpine and in areas receiving snowfall. Most of the species which are known to occur in China seem to prefer alpine habitats. Based on this pattern of vertical distribution, species of *Corymbitodes* could be expected to occur also in the Himalaya. The examination of the type material of *C. kambaitiana* Fleutiaux, 1942, originally described based on female material from Myanmar, enabled us to identify the male of this species, collected in Nepal.

Abbreviations and methods

Abbreviations. The following abbreviations are used in this paper:

CSV	Coll. R. Schimmel, Vinningen, Germany;
CTW	Coll. D. Tarnawski, Wrocław, Poland;
NKME	Naturkundemuseum, Erfurt, Germany;
HNHM	Hungarian Natural History Museum, Budapest, Hungary.

Methods. The examination of the collected material was done using a stereomicroscope ZEISS, Stemi 2000-C

- stices equal to their diameter; surface of elytra almost plain; parameres subapically very slightly cochleariform
- *C. bengalensis* **sp. nov.**
- Antennae exceeding pronotal apices by the length of the last two antennomeres; punctures on pronotum with interstices reduced to small and arched wrinkles; surface of elytra conspicuously micro-reticulated and transversely rugose; parameres subapically almost straight, laterally slightly concave *C. nepalensis* **sp. nov.**

Discussion

Apparently, all currently known species of the genus *Corymbitodes* share a preference for occupying high mountain zones. The species which are known from China, Myanmar, India and Nepal were collected in montane, subalpine, alpine and snowy areas at altitudes of 1000–3000 m. Species which are described in the present paper were collected at 1370–3000 m a.s.l. Unfortunately no larvae of any of the species are known at present. Also, there is no information on the specific habitat conditions in which the specimens were collected. However, since these species belong to a group of elaterids which preferably develop in the top soil of forest areas, the species described here can be expected to select similar habitat conditions. All the species described above have unreduced wings and flight muscles; they are probably able to fly to move within their habitats and disperse.

The currently known species of the genus *Corymbitodes* can be divided in two taxonomic groups.

Group 1: Species with serrate antennae and pronotal median groove only vaguely developed, with lateral edges very slightly arched (*C. bengalensis*, *C. nepalensis*).

Group 2: Species with moniliform antennae and pronotal median groove distinctly developed, with lateral edges sharp and distinctly arched (*C. chassaini*, *C. kambaitiana*).

Further and more detailed taxonomic and phylogenetic studies are needed to clarify the systematic position of the mentioned groups.

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