

The First record of the genus *Trichogomphus* Burmeister from Nepal, and a checklist of Nepalese Dynastinae (Insecta: Coleoptera: Scarabaeidae)

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Abstract

The discovery of the occurrence of the genus *Trichogomphus* Burmeister, 1847 in Nepal is reported, based on the study of two females of the species *T. martabani* (Guérin-Méneville, 1833) collected in the eastern part of the country. The number of Dynastinae species known to occur in Nepal is now increased to 11 species, listed here.

Zusammenfassung

Die Verbreitung der Gattung *Trichogomphus* Burmeister, 1847 in Nepal wird dargestellt, basierend auf Funden von zwei Weibchen von *T. martabani* (Guérin-Méneville, 1833) aus Ostnepal. Die bisher aus Nepal bekannten Arten der Dynastinae werden aufgelistet.

Keywords: Rhinoceros beetle, Oryctini, Dynastidae, faunistics, new record, Nepal, Himalaya

Introduction

The subfamily Dynastinae Macleay, 1819 forms part of the family Scarabaeidae within the order Coleoptera. Dynastinae currently includes more than 1500 species in 225 genera (ROLPH & RICHARD 2016, PATHOMWATTANANURAK et al. 2019), which are distributed in most biogeographical regions, and are particularly prevalent in tropical areas. The Dynastinae species occurring in the Palaearctic Region were recently listed by KRELL & BEZDEK (2016). In that work, 98 species are reported from the region, belonging to 26 genera. Ten species were previously known to occur in Nepal.

The genus *Trichogomphus* Burmeister, 1847, of the tribe Oryctini, comprises 15 species (Species 2000 & ITIS Catalogue of Life 2020) of which only 4 are represented in the Palearctic region: *martabani* (Guérin-Méneville, 1833), *mongol* Arrow, 1908, *robustus* Arrow, 1930 and *rongi* Dechambre & Drumont, 2000 (KRELL & BEZDEK 2016).

Members of this genus are of large size (usually 40-60 mm), more or less dark brown or black, and display a high level of sexual dimorphism. The head and pronotum of major males have a large horn that is often laterally depressed, while the females usually have only a tubercle, rarely a horn. The generic characters consist, among others, of: a triangular clypeus with a truncate apex with two small raised denticles; external margin of mandibles simply curved with apices usually sharp, rarely incised internally; pronotal cavity usually large; anterior tibiae tridentate, apex of the hind tibiae with two teeth; propygidium lacking a stridulatory area (DECHAMBRE 1981, ENDRÖDI 1985).

One female of *T. martabani* was collected recently by the famous Hungarian lepidopterist Márton Hreblay, during what was to be his penultimate expedition, in 2000 to Nepal; he tragically died in the same year in a car accident in Thailand (BÁLINT et al. 2014). This specimen represented the first record of the genus and species for Nepal. A decade later, a second Nepalese female was brought to my attention and provided for study by Emil Kučera.

The detailed collection data for these specimens, together with a distribution map and a photograph of a female specimen, are provided.

Material and methods

Specimens examined in this study are mounted and were observed using a Leica MZ-6 stereo microscope. Habitus macrophotographs were taken with a Canon EOS 70D DSLR camera fitted with a 105 mm F2.8 Sigma EX DG Macro OS Lens. Image stacking was performed using Zerene Stacker software.

Data from specimen labels are reproduced verbatim, without additions; all labels are printed.

The material discussed below is housed in the following collections:

EKC - Emil Kučera private collection, Soběslav, Czech Republic;
RBINS - Royal Belgian Institute of Natural Sciences, Brussels,
Belgium.

Results and discussion

***Trichogomphus martabani* (Guérin-Méneville, 1833) (Fig. 1)**

Material studied: 1 female, East-NEPAL 1500 m., Nesum, Milke Danda, 21.8.2000, leg. Márton Hreblay (ex coll. Alain Drumont, will be deposited in RBINS, I.G.: 34.249); 1 female, NEPAL East, Taplejung, 23-24.5.2013, leg. E. Kucera (EKC).

Both females of *T. martabani* were collected at altitudes below 2000 metres and within the same area of the Taplejung district (Fig. 2). This discovery of the occurrence of the species in the Eastern part of Nepal represents the first record for the country, and is also the first country record for the genus *Trichogomphus* in Nepal. The species is recorded from southern China, northern India, Laos, Myanmar, Thailand and Vietnam (ARROW 1910, PAULIAN 1945, DECHAMBRE 1981, ENDRÖDI 1985). In the Himalaya region, it is already known to occur in the Xizang province of China and from the Indian state of Sikkim, this last region sharing a boundary with the eastern part of Nepal (KRELL & BEZDEK, 2016). Therefore, this new record is not surprising, but does extend the known geographic range of *T. martabani* a little further to the West.

The examination of the Dynastinae material mentioned in this note has increased our knowledge of the fauna of Nepal and brought the number of species known to occur in Nepal to 11, distributed among 8 genera. These are listed below.

Updated checklist of the Dynastinae from Nepal (based on KRELL & BEZDEK 2016)

Tribe Cyclocephalini Laporte, 1840
Peltonotus morio Burmeister, 1847

Tribe Dynastini MacLeay, 1819
Chalcosoma atlas (Linnaeus, 1758)

Chalcosoma chiron (Olivier, 1789)
Eupatorus hardwickii (Hope, 1831)
Xylotrupes mnischechii ssp *mnischechii* Thomson, 1859

Tribe Oryctini Mulsant, 1842

Trichogomphus martabani (Guérin-Méneville, 1833) (**new record**)

Tribe Pentodontini Mulsant, 1842

Alissonotum binodulum (Fairmaire, 1891)

Alissonotum simile Arrow, 1910

Phyllognathus dionysius (Fabricius, 1792)

Tribe Phileurini Burmeister, 1847

Eophileurus forsteri Endrodi, 1971

Eophileurus platypterus (Wiedemann, 1823)

Acknowledgments

I address my most sincere thanks to my colleagues Noël Mal (Marcinelle, Belgium) for the photograph of the female of *Trichogomphus martabani* which illustrates this paper, and Emil Kučera (Soběslav, Czech Republic) for the examination of the specimen preserved in his collection. I would also like to express my appreciation to Conrad P.D.T. Gillett (University of Hawai‘i, Honolulu, USA) for reviewing the English part of the manuscript

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Legends of figures

Fig. 1. Dorsal view of *Trichogomphus martabani* (Guérin-Méneville): female, 42 mm (total body length taken from tip of clypeus to apex of elytra), Photo: Noël Mal.

Fig. 2. Distribution map of *Trichogomphus martabani* (Guérin-Méneville) in Nepal.



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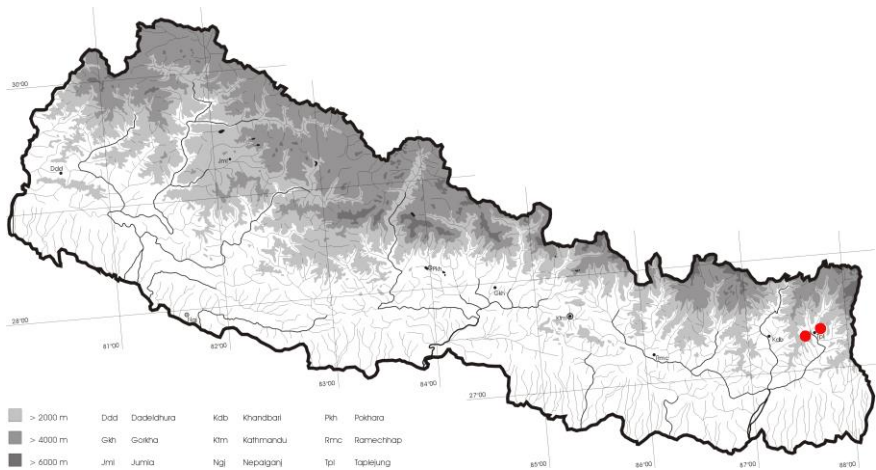


Fig. 2. Distribution map of *Trichogomphus martabani* (Guérin-Méneville) in Nepal.