

## Contribution to the knowledge of Macrolycini with description of *Calcaeron*, new genus (*Coleoptera*, *Lycidae*)

SERGEY V. KAZANTSEV

Sergey V. Kazantsev, Insect Centre, Donetskaya 13-326, 109651 Moscow, Russia  
kazantss@yahoo.com

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## Abstract

The morphology of the tribe Macrolycini of net-winged beetles (Lycidae) is studied. The subtribe Dilophotina Kleine, **nom. rev.** is revalidated from synonymy with Macrolycini. A new genus *Calcaeron* **gen. n.** and five new species: *Mesolycus hubeicus*, *M. nanensis*, *M. murzini*, *Calcaeron sundaicus* and *C. baluensis* are described. *Mesolycus* Gorham **nom. rev.** is revalidated from synonymy with *Dilophotes*, while *Flabellodilophotes* Pic, 1912 and *Biphilodes* Kazantsev, 2000 are synonymized with *Mesolycus*. *Dilophotes moxiensis* Bic is found to be synonymous to *Mesolycus ilyai* (Kazantsev). *M. mediozonatus* (Nakane), stat. n. is raised to species level. The following taxa are transferred to *Mesolycus*: *Dilophotes pygmaeus* Waterhouse, *D. shelfordi* Bourgeois, *D. discoidalis* Pic, *D. ater* Pic, *D. tricostatus* Kleine, *D. ilyai* Kazantsev, *D. qinlinganus* Kazantsev, *D. tibetanus* Kazantsev, *D. berezowskii* Kazantsev, *D. sausai* Bic, *D. laosensis* Bic, *D. bolavensis* Bic, *D. jendeki* Bic, *D. holzschuhi* Bic, *D. bhutanensis* Bic and *Flabellodilophotes obscurus* Pic. The phylogeny of Macrolycini is discussed and a key to the genera of the tribe is provided.

**Key words:** Coleoptera, Lycidae, Macrolycini, new genus, new species, taxonomy, phylogeny, Palaearctic and Oriental regions

## Introduction

The tribe Macrolycini includes the genera *Macrolycus* Waterhouse, 1878, *Dilophotes* Waterhouse, 1879 and *Flabellodilophotes* Pic, 1912 (Bocák & Bocáková, 1990; Kazantsev, 2000a; Bic, 2002). The reason these taxa are regarded as a holophyletic group is that their bifid claws and somewhat similar pronotal structure with narrow median carina, often reduced in posterior half, are considered to be their synapomorphies.

Although this Oriental and East Palaearctic group of Lycidae has been receiving attention from taxonomists during recent decades (i.e. Nakane, 1967; 1969; 1994; Kazantsev, 1993, 2000b), publications were mostly limited to the description of new *Macrolycus* species accompanied by lists of regional faunas. Two recent papers were published on *Dilophotes* as well (Kazantsev, 2000a; Bic, 2002), with the later one also giving a list of Palaearctic and Indochinese species of the genus. The list, however, did not include at least three species from the regarded region, *D. vitalisi* Pic, 1923 (Vietnam), *D. mediozonatus* Nakane 1955, stat. nov. (Japan) and *D. libnetoides* Nakane, 1971 (Taiwan). The author also was not precise in delineating northern limits of the distribution area of *Dilophotes*, excluding Russia from the countries where these lycids may be encountered, although relevant records were available (Medvedev, 1992; Kazantsev, 2000a).

The present paper is yet another contribution to the knowledge of this lycid group, with an emphasis on its morphology and phylogeny. A phylogenetic analysis of the complex revealed the presence of three genus-group taxa, which entailed revalidation of *Mesolycus* Gorham, 1883 from synonymy with *Dilophotes*. It would be worth mentioning that this synonymy had been established without examination of types of the type species and without seeing the type species of one of the synonymized genera (Bocák & Bocák-