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**Taxonomic revision of the genus *Anomalophylla* Reitter, 1887
(Coleoptera: Scarabaeidae: Melolonthinae: Sericini)**

DIRK AHRENS



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Abstract

The species of the genus *Anomalophylla* Reitter, 1887 are revised. Eighteen new species are described: *Anomalophylla dongchuanensis*, *A. ganhaiziensis*, *A. hispidulosa*, *A. huashanica*, *A. kangdingensis*, *A. liciata*, *A. majori*, *A. morula*, *A. moxiensis*, *A. obscuripennis*, *A. plagipennis*, *A. qinlingensis*, *A. stoetzneri*, *A. subcarinata*, *A. subfastuosa*, *A. tsangpoana*, *A. vidua*, and *A. wulingshanica*. The formerly unavailable name *A. moupinea* ab. *bicolor* Balthasar (1932) was made available as a name for a proper species, *A. bicolor*. Lectotypes are designated for the following taxa: *Anomalophylla kozlovi* Medvedev, 1952; *A. moupinea* Fairmaire, 1891; *A. tristicula* Reitter, 1887; and *Melaserica thibetana* Brenske, 1897. One new combination is necessary: *Anomalophylla mawi* (Arrow, 1946). *Homaloplia discoidalis* Fairmaire, 1897, is placed in synonymy with *A. tristicula* Reitter, 1887.

Key words: Beetles, Scarabaeidae, Sericini, *Anomalophylla*, China, new species, key to species.

Introduction

The great altitudes of Tibet and the Himalaya have long attracted the attention of naturalists. Despite the inaccessibility of these mountain ranges, modern techniques in the geosciences such as glaciology and tectonics have helped to fundamentally change our understanding of this region of the earth.

The genus *Anomalophylla* is known to occur only in the higher mountains of East Tibet and northern China. Most species occur in forest habitats, but some species also are found in steppe habitats of the drier northern Tibetan highland and rarely in meadows of the subalpine and alpine zones. The overall elevational range of this genus occurs from 1000 to over 4600 metres. In higher latitudes, populations occur at lower elevations (using data from the present study). Brachyptery has not been observed in any species in this genus as it has in other related groups of Sericini. Adults of *Anomalophylla* are diurnally active on plants. Members of the genus exhibit and possess similar colour patterns to species of *Omaloplia* Schoenherr, 1817 and *Microserica* Brenske, 1894 (also diurnal), namely showing notable dorsal colour polymorphism.

Medvedev (1952) recently reviewed the genus *Anomalophylla* and included four species in the genus. Nikolaev (1982) considered all these taxa to belong to just one valid species, however, he did not take the type material of these species into consideration. The taxonomic revision of the genus *Anomalophylla* presented here was conducted to better understand the taxonomy of these sericine beetles and as a basis for a phylogenetic study of *Anomalophylla* (Ahrens accepted). This group is particularly interesting in light of various processes such as orogenesis, climate shifting, and glaciation that must have affected the evolution of this clade. Moreover, the present study improves our knowledge of relationships among the Sericini.

The material studied for this revision originated from the following collections: