Revision of the genus Paraplaneta Warren, 1895 (Lepidoptera: Geometridae, Larentiinae) from Southeast Asia

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Abstract

The genus Paraplaneta Warren, 1895, until recently treated as a junior synonym of Cataclysme Hübner [1825], is revised. Both genera are members of the tribe Cataclysmini (Herbulot, 1962–63). As a whole, eight species of Paraplaneta are recognized from Himalaya region (India, Pakistan) and China, including four new species: P. anthracica, P. griseobrunnea, P. subfasciata (from China), and P. hreblayi (from Pakistan), described herein. A lectotype for Cataclysme conturbata sterneki Prout, 1938 is designated. Descriptions, diagnoses and illustrations of antennae, wing venation and male and female genitalia of most species are given. The tribal placement of Paraplaneta and related genera within the Cataclysmini is discussed.

Key words: Cataclysmini, Paraplaneta, redescription, new species, genitalia, pseudojuxta, corematal claws, external morphology

Introduction

Warren (1895) described the genus Paraplaneta, designating Larentia conturbata Walker, [1863] as the type species, separating it from Cataclysme Hübner by a single diagnostic character only: the pectinated male antennae. This probably was the reason that subsequent authors did not accept its validity and did not use it. Prout (1914: 266) placed conturbata in Cataclysme again, which he divided into four sections (= subgenera), according to the characters of the antennae: conturbata was placed in section C – Paraplaneta. Later, Prout (1938: 171) does not even use these sections. Parsons et al. (1999: 112) also treated Paraplaneta as a synonym of Cataclysme, mentioning seven species, more or less reflecting the previous state of knowledge (but without C. grandis Prout, 1914, for which a new genus, Herbulotina Pinker, 1971, had been described). Xue and Zhu (1999) revised the species of “Cataclysme” (sensu Prout) from China, still treating Paraplaneta as a junior synonym. Five of six species recorded by them are in fact members of Paraplaneta, as shown below. Viidalepp (2009: 32) finally revived Paraplaneta as a valid genus, based on “differences of the male antennae pectination, the simpler armature in male genitalia, with deeply bipartite uncus, the configuration of coremata in male abdominal segments and the presence of large thumbtack-shaped signa in female genitalia” (without further explanations or figures).

The aim of the present study is to give a more detailed redescription of the genus Paraplaneta Warren, to clearly separate it from Cataclysme Hübner by morphological differences, and to describe four new species from China and Pakistan.

Material and methods

For this study, the material examined has been obtained from the following institutions (with acronyms used in the text): The Natural History Museum, London, England (BMNH); Institute of Zoology, Academia Sinica, Beijing.