Studies on neotropical Phasmatodea II: Revision of the genus *Malacomorpha* Rehn, 1906, with the descriptions of seven new species (Phasmatodea: Pseudophasmatidae: Pseudophasmatinae)

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Abstract

The genus *Malacomorpha* Rehn, 1906 is revised at the species-level, based upon examination of all necessary type-material and extensive material housed in ANSP, CMNH and USNM mainly collected on nine expeditions to the Dominican Republic, including collections at 280 sites distributed throughout the country. A re-description of the genus and detailed descriptions of all 13 known species are provided. Seven new species are described and illustrated: *Malacomorpha bastardoae* n. sp., *M. macaya* n. sp., *M. hispaniola* n. sp., *M. minima* n. sp., *M. multipunctata* n. sp. & *M. obscura* n. sp.
from Hispaniola and *M. sanchezi* n. sp. from Puerto Rico. The eggs of *M. bastardoae* n. sp., *M. cyllarus* (Westwood, 1859), *M. jamaicana* (Redtenbacher, 1906), *M. multipunctata* n. sp., *M. obscura* n. sp., *M. sanchezi* n. sp., and *M. spinicollis* (Burmeister, 1838) are described and illustrated, those of the four latter species for the first time. According to the original description and distribution *Phasma graveolens* King, 1867 is obviously a synonym of *M. cyllarus* (Westwood, 1859), and not a synonym of *Anismorpha buprestoides* (Stoll, 1813) as stated by previous authors (n. syn.). A lectotype is designated for *Phasma spinicollis* Burmeister, 1838.

The newly described species, *M. longipennis* (Redtenbacher, 1906) and *M. hispaniola* n. sp. in particular, prove the genera *Pseudolcyphides* Karny, 1923 (Type-species: *Phasma spinicollis* Burmeister, 1838) and *Alloeophasma* Redtenbacher, 1906 (Type-species: *Anophelepis poeyi* Saussure, 1868) to be synonyms of *Malacomorpha* Rehn, 1906 (n. syn.). Consequently, the type species of both genera are here transferred to *Malacomorpha* Rehn, 1906 (n. comb.). The genus now contains apterous, brachypterous and pterous species restricted to the Greater Antilles and Bahamas.

Key words: Phasmatoidea; Pseudophasmatidae; Pseudophasmatinae; Anisomorphini; Malacomorpha; Alloeophasma; Pseudolcyphides; Greater Antilles; Cuba; Jamaica; Hispaniola; Puerto Rico; Bahamas, new species; new synonyms; lectotype; descriptions; eggs

Introduction

The Phasmid fauna of the Greater Antilles is by far richer and more diverse than supposed in the past. This is particularly obvious through the extensive examination of new material from Hispaniola. A survey of the Hispaniolan orthopteroid insects was carried out from 2001 through 2004 and comprised nine international expeditions and collections at 280 sites distributed throughout the area of the Dominican Republic. Besides many interesting Orthoptera, large numbers of Phasmatoidea were collected, which multiply the amount of species known from Hispaniola. The higher elevations of the island in particular still seem to harbor many so far unrecognized species.

The subfamily Pseudophasmatinae is only represented in the West Indies by the two closely related genera, *Malacomorpha* Rehn, 1906 and *Anisomorpha* Gray, 1835. A new species of *Anisomorpha* Gray from the Dominican Republic, which represented the first record of this genus from the West Indies, was recently described by Conle, Hennemann & Perez-Gelabert (2006). *Malacomorpha* is widely distributed but restricted to the Greater Antilles, and according to the present study contains 13 species, seven of which are described as new. Due to the extensive material from the Dominican Republic at hand, six of the seven newly described species and the majority of species are currently known from Hispaniola. However, according to the generally high percentage of still unknown species of Phasmatoidea in the Greater Antilles, detailed future perspectives of the other islands faunas will quite certainly reveal several additional new species of *Malacomorpha*.

In the past, *Malacomorpha* Rehn, 1906, *Alloeophasma* Redtenbacher, 1906, *Pseudolcyphides* Karny, 1923 and *Anisomorpha* Gray, 1835, have been subject to studies by several authors and were treated variably (e.g. Conle & Hennemann, 2002 & Zompro, 2004). The discovery of seven new species of *Malacomorpha* and the availability of extensive new collections led to many significant changes at the generic level and proved *Malacomorpha* to be more polymorphic than suggested by former authors. As a result, both *Alloeophasma* Redtenbacher and *Pseudolcyphides* Karny are shown to be junior synonyms of *Malacomorpha* Rehn.

Accordingly, *Malacomorpha* Rehn is in need of a full revision and this work includes a clarification of its synonymy and differentiation from related genera, descriptions and illustrations of seven new species, detailed re-descriptions and illustrations of the remainder six species of the genus, descriptions and illustrations of all known eggs, providing keys and information on its biology, behaviour, host-plants and distribution are the subjects of the present revision.