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Studies on neotropical Phasmatodea V: Notes on certain species of *Pseudosermyle* Caudell, 1903, with the descriptions of three new species from Mexico (Phasmatodea: Diapheromeridae: Diapheromerinae: Diapheromerini)

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Abstract

Six species of *Pseudosermyle* Caudell, 1903 occurring in Mexico are discussed. Three new species from Mexico are described and illustrated, all of which are closely related to *Pseudosermyle phalangiphora* (Rehn, 1907): *P. chorreadero* **n. sp.** from both sexes, *P. procera* **n. sp.** and *P. claviger* **n. sp.** from the males only. The males of *P. inconguens* (Brunner v. Wattenwyl, 1907) and *P. tolteca* (Saussure, 1859) are re-described and illustrated. Detailed descriptions and illustrations are furthermore provided for both sexes and the eggs of *P. phalangiphora* (Rehn, 1907).

Taxonomic problems caused by misidentifications and wrong synonymies of previous authors concerning to these six species are clarified. A lectotype is designated for *Pseudosermyle incongruens* (Brunner v. Wattenwyl, 1907). *Ocnophila crudis* Brunner v. Wattenwyl, 1907 and *Dyme depressa* Brunner v. Wattenwyl, 1907 are shown to be junior synonyms of *P. phalangiphora* Rehn, 1907.

Key words: Phasmatodea; Diapheromeridae; Diapheromerinae; Diapheromerini; *Pseudosermyle*; Mexico; Belize; Guatemala; Honduras; *P. chorreadero* **n. sp.**; *P. claviger* **n. sp.**; *P. incongruens; P. phalangiphora; P. procera* **n. sp.**; *P. tolteca*; new species; new synonyms; keys; lectotype

Introduction

Examination of extensive material shows the Mexican phasmid fauna to be apparently rich and highly diverse but up to date very poorly studied, with only about 90 species recorded so far. The high biodiversity of Mexico is explained by its geographical position and its rather complex topography, which includes mountains with altitudes up to 5700 m, as well as various types of environments and climatic zones ranging from dry lowland savannah and grasslands in the north to tropical rainforest in the south. The northern and central regions between the Cordillera Occidental and Cordillera Oriental represent a transition zone between the faunas of the Nearctic and Neotropical Realms, termed the "Mexican transition zone" (Morrone, 2006).

A survey of the Mexican orthopteroid insects was carried out from 2004 through 2006 and is still ongoing. This has so far resulted in several expeditions under the leadership of one of the authors (Paolo Fontana, Italy). Besides many interesting Orthoptera of various orders, large numbers of Phasmatodea were collected from numerous localities. In addition to this recently collected material, more than 1000 specimens from the Instituto de Biologia, Universidad Nacional Autonoma de Mexico (UNAM) are at hand for examination and will support upcoming studies on the Phasmatodea of Mexico by the authors.

The extensive material collected during 2004–2006 shows the great importance of new collections for our understanding of the diverse Mexican fauna, as these can serve precise locality data, information on the habi-

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