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New national and state records of Neotropical Staphylinidae (Insecta: Coleoptera)

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Abstract

Eighteen new national records of nine species of Osoriinae (Staphylinidae) are added for 10 Neotropical countries. Additionally, 17 species of three subfamilies are first recorded from ten States of México. The distributional patterns of the studied species are commented and the congruence with species of different families of Coleoptera and Odonata previously analyzed is discussed. Finally, we conclude that some of these patterns can be proposed as hypothesis of primary biogeographic homology.

Key words: first records, staphylinids, Neotropic, patterns of distribution

Introduction

The Staphylinidae family has the highest number of species in the Order Coleoptera and the highest number of families of all insect orders, since more than 56,000 species from 32 subfamilies and 157 tribes are known worldwide (Grebennikov & Newton 2009; Bouchard *et al*. 2011; Brunke *et al*. 2012). In spite of several contributions to the Neotropical Staphylinidae in the last years, the knowledge in several topics, such as taxonomy, ecology and biogeography, can be considered scarce or poor.

Accurate information about the geographical distribution of the staphylinid species is important to find the best approximation of their real distribution instead of a fragmentary knowledge, which prevents a biogeographic analysis. For example, records of species from their outer distributional border may pretend a disjunct distribution, which, however, must be corrected if new records are discovered in between. Complete information is also necessary to find endemic species that are of high value for the biodiversity evaluation and nature conservation purposes. In this sense, publications on new national and state records, and records of new localities are made from Neotropical species, with emphasis on Mexican species of staphylinids. Moreover, analysis of their distributional patterns is of high value from a historical biogeographic viewpoint (Asiain *et al*. 2010; Asiain & Márquez 2012; Hornung-Leoni *et al*. 2013; Irmler 2006b, 2007, 2012a, 2012b; Márquez 2004, 2006, 2011; Márquez & Asiain 2009, 2010, 2012; Márquez & Morrone 2003; Navarrete-Heredia & Márquez 1995).

The goal of this work is to provide several new national records of staphylinid species from ten Neotropical countries, and several new state records from México, as well as maps of geographical distribution based on the records obtained from literature and the new records based on specimens from different collections. Finally, the distributional patterns of the studied species are discussed.

Material and methods

Studied specimens are deposited in the following institutional collections (abbreviations in brackets): Coleoptera

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