A checklist and key for the identification of bess beetles (Coleoptera: Passalidae) of Argentina

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Abstract

Based on field collections, museum specimens and literature review, we present a checklist of Argentine Passalidae, with a key to their identification. A total of five genera and 24 species are listed, including Passalus quadricollis, Passalus perplexus and Passalus elfriedae as first records for the country.

Key words: Passalinae, Passalini, Proculini, South America

Introduction

Passalidae is a group of subsocial and saproxilophagous Coleoptera. The family is mainly pantropical, with a few extratropical species. Depending on the author, the number of subfamilies is 2 (Reyes-Castillo 1970; Boucher 2006) or five (Fonseca et al. 2011); however, the divisions presented by these authors are very similar, differing on the hierarchical level of some of the taxa. Following Fonseca (2011), in the New World, the family is represented by the subfamilies Passalinae and Proculinae, with a clear dominance of the former in South America. There are few publications about the passalid beetles from Argentina and, as noted by Ocampo (2008), the group is poorly represented in the collections of Argentina. The first paper that mentioned passalids from Argentina was that of Pangella (1905), who only cited three species. Bruch (1911, 1915) mentioned seven species in his catalogs of coleopterans of Argentina. After that, Bruch (1942) includes several species cited by Luederwaldt (1931) and Moreira (1925) for Argentina, increasing the number of known species to 20. In all works of Bruch there is just one species of Veturius, because before Boucher (2006), Veturius cephalotes included several synonyms that today have a valid taxonomic status.

Recently, we visited the Passalidae collection at the Museo Argentino de Ciencias Naturales (MACN), including the Bruchs’s collection in this museum (MACNBC), Buenos Aires, and had the opportunity to carry out a field collection in the Misiones province at Bio-Reserva Karadyá, between 11–12 February 2012. We also examined the material from Argentina deposited in the collection of the Instituto de Ecología in Xalapa (IEXA), Mexico and Universidad del Valle de Guatemala (UVGC), Guatemala. The specimens collected in the field were