



A preliminar overview of species composition and geographical distribution of Malvinian weevils (Insecta: Coleoptera: Curculionidae)

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Abstract

The objective of this paper is to provide an integrative approach to species composition and distributional information on the weevil fauna of Islas Malvinas (Falkland Islands). A total of 22 species belonging to 11 Curculionidae genera are recorded for the archipelago. Four of these genera belong to Entiminae (i.e., *Caneorhinus*, *Cylydrorhinus*, *Malvinus*, and *Morrionia*) and the remaining seven belong to Cyclominae (i.e., *Antarctobius*, *Falklandiellus*, *Falklandius*, *Germainiellus*; *Haversiella*, *Lanteriella*, and *Puranius*). The Malvinian weevil fauna could be considered as an impoverished version of that from Tierra del Fuego at the generic level, but with a very high degree of species level endemism. The Malvinian weevil fauna exhibits a great linkage to that from southernmost South America. It has been postulated that the evolution of Malvinian weevil fauna responded to several geodispersal and subsequent vicariant events which determined the archipelago's alternative connections and disconnections from southern South America. These events were due to sea-level variations induced by glacial-eustatic agents during Tertiary and Quaternary times. Finally, synonymic lists are provided for each species known to occur on the islands. Also, distributional data for each species are mapped and keys and illustrations are presented to identify weevil taxa recorded for the Islas Malvinas.

Key words: South America, Curculionidae, Islas Malvinas, Falkland Islands, Tierra del Fuego.

Introduction

Weevils (Coleoptera: Curculionidae) are the most diverse family of known organisms. It includes more than 48,000 valid species (Anderson 1993, 1995). The current distribution of this group extends from the Arctic to the Subantarctic and its species are found in all continents and insular habitats, except Antarctica. Nonetheless, fossil weevils have been registered from Antarctica (Ashworth & Kuschel 2003), in fossiliferous bed of uncertain age (probably within the range of Pliocene to Middle Miocene). Most species of Curculionidae are terrestrial, but some of them inhabit freshwater habitats.

The Islas Malvinas (Falkland Islands) is an archipelago located 520 km east from the Magallanes Strait, between 51° to 52° 30' S and 57° 40' to 61° 30' W. The total land surface of the archipelago is near 10,000 to 12,000 km² (Moore 1968), 80% of which is taken by two main islands: Gran Malvina or West Falkland (5000 km² area) and Soledad or East Falkland (3500 km² area). The relief presents numerous hills, usually less than 300 m in height, with maximum heights of near 700 m (Mt. Osborne in East Falkland is 705 m high). The climate is oceanic-cold (mean annual precipitation is around 600 mm and mean temperature is 2.2°C in the coldest month and 8.8°C in the warmest one, Moore 1968). A typical Malvinian soil has a range of pH from 4.1 to 5.0 and is deficient in calcium and phosphate (Cruickshank 2001). It comprises a shallow (generally no deeper than 38 cm) peaty horizon overlying compact, poorly drained silty clay subsoil (Broughton & McAdam 2005). Mineral soils are present particularly on mountaintops and coastal areas (Broughton & McAdam