



***Ripiphorus caboverdianus* sp. nov.—the first ripiphorid record from the Macaronesian volcanic islands (Coleoptera: Ripiphoridae: Ripiphorinae)**

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Abstract

Ripiphorus caboverdianus sp. nov. (Ripiphoridae, Ripiphorinae) from Boavista Island (Cape Verde archipelago) represents the first record of the family Ripiphoridae from the volcanic islands west of Africa and the first record of the genus *Ripiphorus* on an isolated volcanic archipelago worldwide. Its significance for our understanding of oceanic dispersal abilities of the subfamily Ripiphorinae is discussed. The new species is characterized by milky white elytra, hyaline hind wings and translucent membranous suture between dorsal and ventral surface of the first abdominal segments in both sexes. Female has a slightly curved hind tibia, 2× wider at the apex than at its base, and a slender, parallel-sided first metatarsomere, 5× as long as wide. Morphology of the free-living first instar larva is described; it is very similar to *R. smithi* Linsley & MacSwain, 1950. Behavioral observations of the adults and the first instar larvae in the type locality are given. Known hosts of the genus *Ripiphorus* are reviewed; possible host-association and conservation implications for the new species are discussed.

Key words: Coleoptera, Ripiphoridae, *Ripiphorus*, Cape Verde, oceanic dispersal, phoresy, new species, immature stage, Hymenoptera, Halictidae, *Halictus*, host species

Introduction

Since Charles Darwin's voyage on the HMS Beagle, the fauna and flora of isolated volcanic archipelagoes and islands are often investigated to increase our knowledge and test hypotheses on long-range dispersal and local evolutionary radiations of organisms (e.g. Drake *et al.* 2002, Whittaker *et al.* 2007). The volcanic islands of the Cape Verde archipelago (hereafter abbreviated as CVA), 600–900 km west of mainland Africa, are a prime example of such an isolated ecosystem. They comprise nine inhabited large islands and several other small islands. They are classified within the Macaronesian biogeographic sub-region, which further includes other volcanic archipelagoes and islands scattered west of Africa (Azores, Madeira with Porto Santo and Ilhas Desertas, Salvagens Islands, and Canary Islands) and a thin strip of the Atlantic coast in southern Portugal, Morocco and Spanish Sahara (Oromí 2004). The first extensive catalogue of the Cape Verdean beetles appeared more than 140 years ago (Wollaston 1867), and since that time numerous subsequent studies have been published (summarized in Báez 1988). However, the beetle fauna of the CVA is rather depauperate (Oromí *et al.* 2005) in comparison with e.g. the Canary Islands (Machado & Oromí 2000).

It was thus unexpected to discover in the CVA a previously unreported beetle family whose native occurrence in oceanic volcanic islands may be rather surprising. During our 2009 visit to the CVA we collected 33 adults of the genus *Ripiphorus* Bosc, 1791. The species turned out to be new to science and is described here together with its free-living first instar larva. The newly described species represents the first record of the family Ripiphoridae from the volcanic islands west of Africa and the first record of the genus *Ripiphorus* on an isolated volcanic archipelago worldwide. Its significance for our understanding to oceanic dispersal abilities of the Ripiphorinae is discussed, with remarks on conservation of the newly described taxon.