



Two new species of *Halacarus* (Acari, Prostigmata) from Brazil

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Abstract

The genus *Halacarus* is recorded from the Brazilian littoral for the first time. Two new species are described. *Halacarus omului* **sp. nov.**, obtained from algae on the intertidal or immediate subtidal, is a member of the *actenos* species group and can be distinguished from most congeners by having fifth and sixth pairs of dorsal setae immediately adjacent to fourth and fifth pairs of gland pores, on same minute sclerite. *Halacarus todaroi* **sp. nov.** was obtained from sublittoral coarse sand and shell debris and can be distinguished from most congeners by lacking sexually dimorphic dorsal plates, the presence of the posterior dorsal plate, although it does not bear the fourth pair of gland pores, and the presence of ocular plates as a small platelet bearing the pore canaliculi. Further diagnoses are provided along with the species descriptions.

Key words: *Halacarus*, Halacaridae, Prostigmata, Acari, Brazil, western South Atlantic

Introduction

Until the early twenty-first century, only seven Halacaridae species, belonging to three genera, were known to inhabit the Brazilian coastline: Five reported by Hans Lohmann (1893), from individuals obtained by the “Plankton Expedition” staff during their stay at the mouth of the Amazon River; the other two were collected from the State of Bahia in the littoral zone by “von Ihering” (most likely Hermann von Ihering) and described by Édouard-Louis Trouessart (1900) (Pepato & Tiago, 2004). In the last decade, twenty-five species, belonging to ten genera, were added to the Brazilian halacarid fauna (occurrences reviewed in Bartsch, 2009; recent additions in Pepato et al., 2011 and Abe & Fernandes, 2011).

The genus *Halacarus* is cosmopolitan and consists of 74 species that are recognized by having long genua that are similar in size to the tibiae and the telofemora, spine-bearing first legs and large gland pores. Many species lack some of the typical idiosomal plates in halacarids: Anterior dorsal, posterior dorsal and ocular plates. These dorsal plates are reduced in some way and sometimes exhibit sexual dimorphism. More *Halacarus* species are known from the seas of the Southern Hemisphere than from those of the Northern Hemisphere, *Halacarus* species inhabit the depths from the shallow water edge to deep-sea basins (Bartsch, 2009, 2011).

Material and methods

The specimens were collected from algae on the intertidal or immediate subtidal rocky shore of Lázaro Beach, 23° 30' S, 45° 08' W (Ubatuba, São Paulo State, southeastern Brazil), Massaguaçu Island and Martim de Sá Beach, 23° 38' S, 45° 24' W (Caraguatatuba, São Paulo State, southeastern Brazil), and from coarse sand and shell debris at a depth of 8 m near Itassucê Islet, Barequeçaba Beach, 23° 50' S, 45° 27' W (São Sebastião, São Paulo State, southeastern Brazil). Individuals were sorted under a stereoscopic microscope and were fixed in 70% alcohol. The mites were cleared in lactic acid and mounted in glycerin jelly. The holotypes are deposited in the Acarological collection of the Federal University of Minas Gerais (UFMG-AC). The illustrations were made with the aid of a drawing tube connected to a Leica DM2500 phase contrast microscope. The illustrations were prepared using Adobe Illustrator CS5.1. Pictures were taken using a Zeiss Primo Star microscope with a Zeiss AxioCam ERc5s