



<http://dx.doi.org/10.11646/zootaxa.3956.4.2>

<http://zoobank.org/urn:lsid:zoobank.org:pub:20A373F2-27BE-4599-A586-C78F7378ED9F>

Two new species of the genus *Vosmaeropsis* Dendy, 1892 (Porifera, Calcarea), with comments on the distribution of *V. sericata* (Ridley, 1881) along the Southwestern Atlantic Ocean

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Abstract

Two new species of the genus *Vosmaeropsis* are described: *V. recruta* **sp. nov.** and *V. complanatispinifera* **sp. nov.**, both from the Brazilian coast. These species possess arrow-shaped large diactines in their skeletons, which are being described for the first time in *Vosmaeropsis*. In addition, the latter species presents another remarkable character: the apical actines of its atrial tetractines is flattened and provided with spines. *Vosmaeropsis complanatispinifera* **sp. nov.** is being proposed based on the re-analysis of specimens that in the past were assigned to *V. sericata*. Thus, with the reallocation of these specimens to the newly described species, the current distribution range of *V. sericata* does not include the Brazilian north-eastern coast. *Vosmaeropsis* now comprises 23 species. Most of them present an endemic pattern of distribution, but the genus is widely distributed in tropical and temperate regions around the world.

Key words: Calcareous sponges, Taxonomy, Systematics, Heteropiidae, Brazil

Introduction

The genus *Vosmaeropsis* Dendy, 1892 comprises 21 species of calcareous sponges (Burton 1963; Borojevic & Klautau 2000). It is widely distributed around the world, occurring at tropical and temperate marine waters. *Vosmaeropsis* belongs to the family Heteropiidae Dendy, 1893, being the single genus of this family in which the aquiferous system is of the leuconoid or syllebid types of organisation.

Most of the species assigned to this genus were described between 1873 and 1943. The only exception is *V. hozawai* Borojevic & Klautau, 2000, which was described 15 years ago, and new species and/or new records were not published after that. Nevertheless, the lack of new data about this genus should not be interpreted as an indicative that the species of *Vosmaeropsis* are not abundant or even rare among the calcareous sponges. Instead, this may possibly be related to our lack of knowledge on the diversity of Calcarea as a whole, as has been demonstrated by the continuous description of new taxa from Brazil and other regions around the world (e.g. Azevedo *et al.* 2009; Rapp *et al.* 2011, 2013; Cavalcanti *et al.* 2013, 2014; current work).

In the present work, we describe *V. recruta* **sp. nov.** and *V. complanatispinifera* **sp. nov.**, both found along the Brazilian coast. The latter species is being proposed based on the analysis of specimens previously assigned to *V. sericata* (Ridley, 1881) by Borojevic & Peixinho (1976). Thus, we are proposing modifications on the distribution of *V. sericata* along the southwestern Atlantic Ocean, as discussed below.

Material and methods

The specimens analysed here were obtained by two different ways. Those described as *V. recruta* **sp. nov.** were sampled on artificial substrate used for the recruitment of invertebrate larvae. This experiment (unpublished data) was carried out in 2009, at Forno Harbour–Arraial do Cabo, Rio de Janeiro State, Brazil. The sponges were found