



New species of *Radiospongilla* (Porifera: Spongillidae) from Brazilian inland waters

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Abstract

Radiospongilla Penney & Racek, 1968, characterized by gemmoscleres radially arranged on gemmules and absence of microscleres, is widely distributed in the world across all zoogeographical regions except for Antarctica. In the Neotropical Region only two species are known so far: *R. crateriformis* (Potts, 1882) and *R. amazonensis* Volkmer-Ribeiro & Maciel, 1983. Here we describe a new species of *Radiospongilla*, *R. inesi* **sp. nov.**, from 28 specimens collected between May 2007 to April 2010 from channels and ponds at the Aquaculture Station of Universidade Federal Rural de Pernambuco, Rio do Prata Basin, Recife, Pernambuco State, Brazil. This new species differs from other species of *Radiospongilla* from South America in the morphology of its megascleres and gemmoscleres.

Key words: Brazil, Freshwater sponges, biogeography, Porifera, new species

Introduction

Radiospongilla Penney & Racek, 1968 is characterized by gemmoscleres radially arranged on gemmules and the absence of microscleres. It is widely distributed across the world and occurs in all zoogeographical regions, except for Antarctica and it has 17 species described at the present time (Manconi & Pronzato, 2007; Osborn *et. al.*, 2008). Currently records of the genus in the Neotropical Region consist only of two species: *R. crateriformis* (Potts, 1882) and *R. amazonensis* Volkmer-Ribeiro & Maciel, 1983. *Radiospongilla crateriformis* has a near-cosmopolitan distribution, with records in Mexico, United States, Suriname, Canada, Barbados, Nevis, Cuba, Costa Rica, China and Japan (Old, 1936; Rioja, 1940; Penney & Racek, 1968; Ezcurra de Drago, 1975; Ricciardi & Reisinger, 1993; Manconi & Pronzato, 2005; Manconi & Pronzato, 2007). *Radiospongilla amazonensis* Volkmer-Ribeiro & Maciel, 1983 is so far restricted to Brazil but is widely distributed in this country and has records in seven of the twelve Brazilian hydrographic basins (Pinheiro, 2007). This wide distribution of *R. amazonensis* in Brazil and the discontinuous distribution of *R. crateriformis* may be associated with a cryptic species complex due to the paucity of taxonomic diagnostic characters used to differentiate species of this genus. This paper presents a description of a third species of the genus *Radiospongilla* from South America.

Material and methods

The study area is shown in Fig. 1. The streams and ponds are located at Parque Estadual Dois Irmãos and Universidade Federal Rural de Pernambuco from Rio do Prata Basin, Recife, Pernambuco State, Brazil. The specimens (n=28) were collected from May 2007 to April 2010 in channels and ponds. The material was deposited in the Coleção de Porifera da Universidade Federal de Pernambuco (UFPEPOR) and Museu Nacional, Universidade Federal do Rio de Janeiro (MNRJ). The identification at the species level was carried out through analysis of perma-