

***Sigmaxinella cearense* sp. nov. from sandstone reefs off Fortaleza
(Ceará State, Brazil) (Desmacellidae, Mycalina, Poecilosclerida,
Demospongiae)**

SULA SALANI^{1,2}, TITO MONTEIRO DA CRUZ LOTUFO¹ & EDUARDO HAJDU^{2*}

¹Departamento de Engenharia de Pesca, Centro de Ciências Agrárias, Universidade Federal do Ceará, Campus do Pici, 60455-760, Fortaleza, CE, Brazil

²Museu Nacional, Universidade Federal do Rio de Janeiro, Quinta da Boa Vista s/n, 20940-040, Rio de Janeiro, RJ, Brazil

*Corresponding author.

Abstract

Sigmaxinella cearense sp. nov. is described here on the basis of a single specimen collected in 2004 at Parque Estadual Marinho da Pedra da Risca do Meio, off Fortaleza, Ceará, Brazil. This is the first record of *Sigmaxinella* for the Atlantic Ocean. The new species differs from the other eleven *Sigmaxinella* species by the absence of raphides/microxea, and is the only species with a single category of styles as megascleres (mean length 435µm, mean width 12µm), and sigmas (mean length 21µm). The new species appears to be closer to Australian species of *Sigmaxinella*, on the basis of overall spicule morphology (mainly dimensions and categories of megascleres). This could be suggestive of a transpacific track for the colonization of the South Atlantic, instead of the shorter Agulhas track.

Key words: *Sigmaxinella*, taxonomy, Parque Estadual da Pedra da Risca do Meio, sponge, new species, sandstone reef, Brazil

Introduction

Relatively few species of sponges are known from the coast of Ceará State, NE Brazil, mostly recorded by Schulze (1899 — 1 species), de Laubenfels (1956 — 6 species), Johnson (1971 — 24 species), Hechtel (1976 — 1 species) and Jimenez *et al.* (2004 — 8 species), totaling 37 species. Johnson (1971) was the only one to describe her species, but very little could be written on their overall morphology as a consequence of the bad state of preservation of the collection. An important fraction of her material is still available at Labomar/UFC, which requires re-examination to update the reported classification.