



Spirodesma magdae nov. gen. nov. sp. (Nematoda: Desmodoridae) from the Brazilian deep sea (Campos Basin, Rio de Janeiro, Brazil)*

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Abstract

A new genus and species of Desmodoridae was found in deep-sea sediments of the Campos Basin. Although the cuticle annulation of the new species is similar to members of Desmodorinae, many morphological features are strong enough to classify it within the Spiriniinae. *Spirodesma magdae* nov. gen. nov. sp. is characterized mainly by the presence of a unique form of unispired amphids, with circular amphideal fovea, and a buccal cavity with three equal teeth, one dorsal and two ventrosublateral.

Key words: Spiriniinae, new genus, new species, marine taxonomy

Introduction

Free-living marine nematodes belonging to the family Desmodoridae Filipjev, 1922 have been reported from most deep-sea sediment assemblages, but always in small numbers, reaching at most 1% of total individuals (Soetaert & Heip 1995). In the Campos Basin, 185 genera were identified, and 10 of them (18.5%) belonged to the Desmodoridae. Of these, 4 (40%) were identified as members of the subfamily Spiriniinae: *Chromaspirinia* Filipjev, 1918, *Metachromadora* Filipjev, 1918, *Onyx* Cobb, 1891 and *Spirinia* Gerlach, 1963.

Desmodoridae are essentially marine nematodes, with few exceptions (Decraemer & Smol 2006). According to Lorenzen (1994) there is no autapomorphy for this family, and it is largely distinguished by not possessing the typical features of the families Epsilonematidae Steiner, 1927 and Draconematidae Filipjev, 1918, such as adhesion tubes or ambulatory setae. Within the Desmodoridae there are differences in thickness among the various regions of the body; the ovaries and the vulva lie well posterior to the middle of the body; and the cuticle has very coarse annules, at least in the anterior body region. Within this family there are six subfamilies, separated from each other by unique characters. Members of Prodesmodorinae Lorenzen, 1981 have almost exclusively parthenogenetic reproduction and the species are purely limno-terrestrial; members of Stilbonematinae Cobb, 1920 are obligatorily associated with bacterial epigrowth; Molgolaiminae Jensen, 1978 differ mainly in having round amphids; Desmodorinae Filipjev, 1922 have a globular head capsule; members of Pseusonchinae Gerlach & Riemann, 1973 have the buccal cavity bilaterally symmetrical, large, tubular, subdivided, and with ventrosublateral teeth at the level of the junction; and members of Spiriniinae Gerlach & Murphy, 1965 have no head capsule and the buccal cavity is rather small, from minute to medium-sized (Lorenzen 1994).