



## ***Spirinia lara* sp. n. and *Spirinia sophia* sp. n. (Nematoda, Desmodoridae) from the Brazilian continental margin (Campos Basin, Rio de Janeiro)**

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### **Abstract**

In deep-sea sediments from Campos Basin two new species of *Spirinia* were found. *Spirinia lara* sp. n. is mainly characterized by the presence of paired somatic papillae linked to gland cells and distributed all over the body while *Spirinia sophia* sp. n. possesses an irregular distribution of these glandular somatic papillae.

**Key words:** Deep-sea, Nematoda, new species, *Spirinia*

### **Introduction**

The Brazilian Petroleum and Gas Company—PETROBRAS S.A.—started the “Campos Basin Deep Sea Environmental Project” in the Southeast of Brazil, coordinated by Centro de Pesquisa e Desenvolvimento Leopoldo A. Miguez de Mello (Petrobras Research Center, Rio de Janeiro, Brazil: CENPES) in 2001. Benthic studies, including the biodiversity of meiofauna, were carried out on the continental slope (Soares *et al.*, 1999; Netto *et al.*, 2005; Silva *et al.*, 2006; Fonsêca-Genevois *et al.*, 2006). Along the Brazilian margin, the free-living nematodes represent approximately 90% of the total meiofauna community in this environment (Fonsêca-Genevois *et al.*, 2006).

In the classification proposed by De Ley & Blaxter (2002) the superfamily Desmodoroidea Filipjev, 1922 has been raised to order level. The order Desmodorida De Coninck, 1965 are characterized by a body cuticle generally with transverse striations and without punctate ornamentation (Decraemer & Smol, 2006). According to this classification, Desmodorida contains a single suborder Desmodorina De Coninck, 1965; and two the superfamilies Desmodoroidea Filipjev, 1922 and Microlaimoidea Micoletzky, 1922. There are six subfamilies within the family Desmodoridae Filipjev, 1922: Desmodorinae Filipjev, 1922; Spiriniinae Gerlach & Murphy, 1965; Pseudonchiinae Gerlach & Riemann, 1973; Stilbonematinae Cobb, 1920; Molgolaiminae Jensen, 1978 and Prodesmodorinae Lorenzen, 1981. The Desmodoridae is composed mostly of marine nematodes, with few exceptions (Decraemer & Smol, 2006), and has been mentioned in most of the studies from deep sea sediments, but is always few in numbers (Soetaert & Heip, 1995).

*Spirinia* Gerlach, 1963 is characterized by the shape of the head, form and position of the amphids, a narrow slightly cuticularized buccal cavity, short oesophagus with a pronounced bulb and the male genital apparatus shape (Coles, 1987). According to Vincx & Goubault (1989), the genus possesses 9 valid species, and *S. elongata* Castro *et al.*, 2006, described from Brazil, has been added since.

This paper presents descriptions of two new species: *Spirinia lara* sp. n. and *Spirinia sophia* sp. n., an emended generic description, and list of species in the genus.