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Two new nematode species from Saldanha Bay, South Africa: Perepsilonema benguelae sp. nov. and Leptepsilonema saldanhae sp. nov. (Desmodorida, Epsilonematidae)

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Abstract

Perepsilonema benguelae sp. nov. and *Leptepsilonema saldanhae* sp. nov. are described and illustrated from coarse sand sediments in Saldanha Bay, along the west coast of South Africa. *Perepsilonema benguelae* sp. nov. is characterised by a large swollen body in the genital region, the annuli are not clearly orientated into anteriorly and posteriorly directed margins and copulatory thorns are restricted to three pairs in the precloacal region. In *Leptepsilonema saldanhae* sp. nov. the somatic setae in the pharyngeal region are very long and the first ambulatory setae of the external subventral row are short. Other distinguishing features include the shape of the amphidial fovea and the copulatory apparatus, and the presence of six ventro-lateral copulatory thorns around the cloaca. These descriptions are the first for the family Epsilonematidae from the west coast of South Africa.

Key words: Description, morphology, Africa, Benguela Current, marine, Nematoda, taxonomy

Introduction

Although many studies have been conducted on the ecology of sandy shores around South Africa (eg Brown & McLachlan 1990), our understanding of the diversity of meiofauna, especially nematodes, is extremely limited. Inglis (1963, 1964) described a collection of nematodes from muddy environments along the west coast of South Africa, including 26 new species, and Coles (1977) described a further nine species from Saldanha Bay. This study reports on two new species of marine nematodes collected from soft sediments in Saldanha Bay.

Both species described here belong to the family Epsilonematidae, first established by Steiner (1927) and revised by Lorenzen (1973). The family currently comprises 13 genera and 96 species (Neira et al 2005), distributed across the globe in shallow and deep waters. Both species are in the subfamily Epsilonematinae, which are typically associated with coarse sediments (Vanreusel & Vincx 1986).

The genus *Perepsilonema* was erected by Lorenzen (1973) who described *Perepsilonema papulosum* and established the distinguishing features of the genus. The genus is now characterised by four subcephalic setae, one pair of setae close to the amphids, the absence of dorsal thorns posterior to the cephalic capsule and the absence of ambulatory setae (Verschelde & Vincx 1993). Thirteen species were recognized in the latest revision (Gourbault & Decraemer 1996).

The genus *Leptepsilonema* was erected by Clasing (1983), and is characterised by having: eight subcephalic setae; body lacking dorsal thorns posterior to the cephalic capsule; five rows of ambulatory setae positioned anterior to the vulva; and six of the eight subcephalic setae anterior to the amphidial fovea (Clasing, 1983). Ten species were recognised in the latest revision (Decraemer & Gourbault, 2000).

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