



***Inermonephtys brasiliensis* sp. nov. (Polychaeta: Nephtyidae) from SE Brazil, with a redescription of *I. palpata* Paxton, 1974**

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Abstract

A new species of Nephtyidae, *Inermonephtys brasiliensis*, is described from material previously referred to *I. palpata* Paxton 1974 from off São Paulo and Paraná States, SE Brazilian coast. The new species is characterized by interramal branchiae starting from setiger 3, basal papillae starting on setiger 5, and two kinds of lyrate setae. Several lyrate setae occur as a postacicular spiral bundle in both noto- and neuropodia all along the body, showing two different morphologies (i.e., very short or very long tines). Lyrate setae with long tines are the most common, while those with short tines are more difficult to distinguish and may be absent in some parapodia. A redescription of *I. palpata* is also provided.

Key words: nephtyids, new species, São Paulo and Paraná States, SW Atlantic Ocean, redescription, Australia, Coral Sea

Introduction

The uncommon features of *Nephtys* (*Aglaophamus*) *inermis* were already recognized in the original description, which suggested that the species could be the basis for erecting a new genus (Ehlers 1887). *Inermonephtys* was later proposed by Fauchald (1968) to include nephtyids lacking “the first pair of prostomial antennae” (op. cit., p. 14), and having involute interramal branchiae, lyrate setae and nuchal organs with long eversible digitiform processes. The new genus was based on *Inermonephtys inermis* (Ehlers, 1887), as the type species, and *I. gallardi* Fauchald, 1968. Based on innervation studies, however, several authors considered the second ventral pair of antennae to be homologous with the ventral palps of other polychaetes (Binard & Jeener 1929; Rouse & Fauchald 1997), a criterion we have followed herein.

Six species of *Inermonephtys* are currently considered valid: *I. inermis* (Ehlers, 1887) from the SE coast of USA, *I. gallardi* Fauchald, 1968 from Vietnam, *I. palpata* Paxton, 1974 from Australia, *I. japonica* Imajima & Takeda, 1985 from Japan, *I. patongi* Nateewathana & Hylleberg, 1986 from Thailand, and *I. tetrophthalmos* Rainer & Kaly, 1988 from Australia.

The genus was first reported from the SW Atlantic by Lana (1986), who referred a number of specimens collected in continental shelf bottoms off SE Brazil to *Inermonephtys palpata*, based on the presence of “bifid lateral antennae” (“antenas laterais bífidas”, p. 142) and barred preacicular