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A new marine nematode genus *Pseudoplatycoma* with a new species from the Sulu Sea and revision of the subfamily Platycominae (Enoplida: Leptosomatidae)

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Abstract

The nematode *Pseudoplatycoma malaysianis* n. gen. n. sp. is described from the Sulu Sea (Malaysia). The new genus is classified in the subfamily Platycominae Platonova 1976. Revision of the new genus and four other genera in Platycominae, resulted in four species from the genus *Platycomopsis* being transferred to other genera: *P. dimorphica* and *P. mazjat-zavi* to the genus *Platycoma*; *P. effilata* to the genus *Micoletzkyia*; and *P. gibbonensis* to the genus *Anticoma*. *Pilosinema* is regarded as a synonym of *Platycomopsis* and *Platycomopsis paracobbi* is regarded as a synonym for *P. cobbi*. A key for identification of the genera and species of Platycominae is presented.

Key words: *Pseudoplatycoma malaysianis* n. gen. n. sp., Malaysia, Borneo, *Platycoma*, *Platycomopsis*, *Proplatycoma*, *Pilosinema*

Introduction

Taxonomic studies on free-living marine nematode in Malaysian waters are still limited. The most recent study on marine nematodes in the region focused on the ecological approaches to determining the spatial distribution of marine nematodes in Borneo and Singapore waters (Chen *et al.* 2012a; 2012b; Chen and Shabdin 2014). During an ecological survey carried out in the Sulu Sea a new species of marine nematode, and is herein described as *Pseudoplatycoma malaysianis* n. gen. n. sp.. This nematode is closely related to the other genera in the subfamily Platycominae Platonova 1976. However diagnostic characteristics for the species and genera of Platycominae remain uncertain and therefore the subfamily, including the new genus and the four existing genera *Platycoma*, *Platycomopsis*, *Proplatycoma* and *Pilosinema* are revised.

Material and methods

Samples were taken from a sandy subtidal area of the Sulu Sea (7° 16' 57.68"N, 117° 1' 37.79"E), Sabah, Malaysia at 15 m depth on 15 September 2012 using a Van Veen grab. Sediment samples were rinsed on a 500 µm mesh sieve and the material retained was fixed with 5% formalin. Each sample was then washed into a lined Petri dish and nematodes were sorted under a stereoscopic microscope (Model Zeiss Stemi SV 6). They were then transferred to a cavity block containing 90% freshwater, 5% glycerol, and 5% ethanol before being transferred to a microscope slide with anhydrous glycerol (Platt and Warwick, 1983). Descriptions were made from the glycerol mounts using interference contrast microscopy (Olympus BX 51) and drawings were produced with the aid of a camera lucida. All measurements are in µm. Curved structures are measured along the arc. The following abbreviations are used throughout the text and figures: a, body length / maximum body diameter; b, body length / oesophagus length; c, body length/ tail length; a.b.d., anal body diameter; h.d., head diameter; L, total body length; Sa, spicule length as arc; Sc, spicule length as chord; V, vulva distance from the anterior end of body; and V%, V / total body length; PS,

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