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The description of a new species *Polymastigos javaensis* n.sp. (Annelida: Capitellidae) from the Segara Anakan mangroves, Central Java, Indonesia

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ABSTRACT

A new species, *Polymastigos javaensis* n. sp., is described from sandy clay sediment (0–30 cm depth) of the Segara Anakan mangroves. The species is described based on the distribution of capillaries and hooks, and the form of the prostomium, thorax, abdomen, lateral organs, genital pores, branchiae and pygidium. Methyl green staining pattern was applied to examine the similarity between the material of this study and Green's material. *Polymastigos javaensis* n. sp. is the second species belonging to the genus *Polymastigos*, after *P. reishi* Green, 2002. It differs from *P. reishi* in the form of abdominal segments and hooks, and the methyl green staining pattern. A key to distinguish the two species is provided in this paper.

Keywords: Polychaeta, taxonomy, Indo-West Pacific

INTRODUCTION

The genus *Polymastigos* was described by Green (2002), who assigned a single species, *P. reishi* Green, 2002, to it. The genus is characterized by having 12 thoracic segments with a well-developed achaetous peristomium and 11 chaetigers bearing capillary chaetae in both rami. At least the first four abdominal chaetigers have capillary chaetae in notopodia and hooded hooks in the neuropodia, whereas the remaining abdominal chaetigers have hooded hooks in both rami.

Polymastigos reishi Green, 2002, was first discovered from offshore in the Andaman Sea, Thailand, from marine sediments characterized as muddy sand, sandy mud and mud. To date, the description of *P. reishi* by Green (2002) is the only report of this species.

The Segara Anakan (SA) mangrove, Cilacap, Central Java Province, Indonesia, is the largest mangrove forest in Java (Yuwono *et al.*, 2007). A study by Nordhaus *et al.* (2009) revealed unidentified capitellids as one of dominant macrobenthic taxa of the SA mangrove. Later, Pamungkas (2013) reported the presence of the capitellid *Polymastigos* sp. in the SA mangrove area with some differences from *P. reishi* Green, 2002. Similar to Green's species, the specimens obtained by Pamungkas were either incomplete (due to the sampling technique) or immature. The specimens were deposited at the *Zentrum für Marine Tropenökologie* (Center for Tropical Marine Ecology – ZMT) Bremen, Germany, and remain unidentified due to a lack of taxonomic information on Indonesian polychaetes. In this study, the capitellids from the SA are re-collected and described, and compared to *P. reishi* Green, 2002, to determine whether they are conspecific or represent a new species.

MATERIALS AND METHODS

The capitellids *Polymastigos* were resampled to obtain intact and mature specimens. All material was collected on October 29th, 2013, from the SA mangrove, Cilacap, Central Java Province, Indonesia. The mangrove habitat nearby an oil refinery, i.e. station SA-01 (7°41'32"S, 108°59'3"E), has become the main station of interest as this