



A new species of *Myrianida* (Syllidae, Polychaeta) from Belize

ARNE NYGREN^{1,3} & FREDRIK PLEIJEL²

¹Göteborg University, Department of Zoology, Biodiversity and systematics, Box 463, SE-40530 Göteborg, Sweden

²Göteborg University, Tjärnö Marine Laboratory, SE-45296 Strömstad, Sweden

³Corresponding author. E-mail: arne.nygren@zool.gu.se

Abstract

We describe *Myrianida gidholmi* sp. n. from shallow waters in Belize. It is characterized by a unique colour pattern consisting of red transverse and longitudinal bands. We determine its phylogenetic position within *Myrianida* using a combined approach with morphological and molecular data. The new species is compared to relevant *Myrianida* taxa and important features for morphological identification are listed in a table. The new combinations *Myrianida tyrrhenica* (Cognetti, 1953) and *M. cognetti* (Çinar & Gambi, 2005) are introduced, and *Autolytus antondohrni* Çinar & Gambi, 2005, is synonymized with *M. tyrrhenica*. We also provide a checklist of all taxa belonging to *Myrianida*.

Key words: Taxonomy, new species, Belize

Introduction

Autolytinae constitutes a well-delineated group of syllid polychaetes, separated from other syllids by e.g. the presence of a sinuous pharynx, lack of ventral cirri, and reproduction with dimorphic sexes. Following the revision of Autolytinae (Nygren 2004), there are 11 recognized genera belonging to Autolytinae, *Myrianida* Milne Edwards, 1845, *Proceraea* Claparède, 1864, *Procerastea* Langerhans, 1884, *Virchowia* Langerhans, 1879, *Levidorum* Hartman, 1967, *Paraprocerastea* San Martín & Alós, 1989, *Epigamia* Nygren, 2004, *Imajimaea* Nygren, 2004, *Pachyprocerastea* Nygren, 2004, *Paraproceraea* Nygren, 2004, and *Planicirrata* Nygren, 2004. Among those *Myrianida* is one of the more inclusive genera, comprising 45 nominal species of which 15 were regarded as synonyms, and four were considered as incertae sedis in Nygren (2004). More recently Çinar & Gambi (2005) described two additional species as *Autolytus antondohrni* and *A. cognetti*, both of which here are transferred to *Myrianida*. In this paper we describe a new member of *Myrianida* from Belize. We assess its position within *Myrianida* using morphological data together with sequences from the mitochondrial 16S and nuclear 18S.

Material and methods

Algae and gravel were put in tubs with sea water, and emerging worms were collected. The specimens were relaxed with magnesium chloride, preserved in formalin (10%) for a few days, rinsed in fresh water and transferred to 80% alcohol, or for use in DNA-sequencing, preserved directly in 80% alcohol. Live specimens were photographed with a Canon EOS 5D connected to a Canon MP-E65/2.8 1-5X macro objective. Methyl salicylat (winter green oil) were used for examining trepan structures in preserved specimens. A list of the morphological characters used in the analysis is provided in Table 1, and the morphological data matrix is provided in