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***Nereis alacranensis*, a new species of polychaete (Annelida, Nereididae) from Alacranes Reef, southern Gulf of Mexico, with a key to *Nereis* from the Grand Caribbean**

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Abstract

A new species of polychaete, *Nereis alacranensis* n. sp., was found in dead coral rocks in the intertidal zone of Alacranes reef, southern Gulf of Mexico. *N. alacranensis* n. sp. can be included in a group of nereidids characterized by the absence of paragnaths in areas I and V of the pharynx, the presence of cones in a single row or absent in areas VII–VIII, and short blades in notopodial homogomph falcigers. The new species can be separated from the other species of the group by the presence of 3–7 cones in area VI and 7 cones arranged in a row in areas VII–VIII, finely dentate blades in notopodial homogomph falcigers, but most of all, by the presence of an unusual brown coarse arc shaped plate on the external ventral region of the peristomium. This structure has not yet been reported, at least in this genus. A taxonomic key of the species of *Nereis* recorded from the Grand Caribbean region is included.

Key words: Polychaeta, coral reefs, taxonomy, Grand Caribbean

Introduction

Nereididae is one of the most diverse families of polychaetes, since it includes around 723 nominal species, grouped into 42 genera (Read & Glasby 2015), it is extensively distributed in a large variety of benthic habitats, from the intertidal zone to abyssal depths (Dean 2001). The large number of species described in several genera including *Nereis*, has produced heterogeneous taxonomic assemblages, at least in some genera. As a result, many species have been assigned to informal groups according to their common morphological characteristics (Bakken 2004). However, discrepancies over the taxonomic categories in this family are frequent (Santos *et al.* 2005).

Members of the genus *Nereis* Linnaeus, 1758 have been grouped by the presence of paragnaths on both oral and maxillary rings, lack of papillae, and presence of compound homogomph falcigers on posterior notopodia (Fauchald 1972; Hutchings & Turvey 1982; Hilbig 1992). However, no author has systematically studied the morphological variety across this large genus (Bakken 2004). *Nereis pelagica*, the type species of the genus, was described by Linnaeus in 1758. Since then, as a result of the detailed taxonomic study of the morphological characteristics of nereidids, several of the species originally described as *Nereis* have been transferred to other genera or even to other polychaete families (Bakken 2004). Progressively, the taxonomy of nereidids has been more clearly defined, and *Nereis* has arisen as one of most diverse genera, with about 241 species (Read 2015).

To date, 44 species of nereidids, including the new species described herein, have been recorded from the Gulf of Mexico (Fauchald *et al.* 2009), but in the Caribbean Sea, 73 species are known from this family (Salazar-Vallejo 1996; Dean 2012). These differences are also observed in the distribution of the members of the genus *Nereis*, since 10 species are currently known from the Gulf, while 19 species have been collected in the Caribbean Sea.

During the course of a large project whose aim was to study the polychaete fauna of the dead coral rocks from