



A collection of Sabellidae (Polychaeta) from Carrie Bow Cay (Belize, western Caribbean Sea) with the description of two new species

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Abstract

In the framework of a research on taxonomy and ecology of selected families of polychaetes conducted at the field station of the Smithsonian Institution (Washington DC, USA) at Carrie Bow Cay (Belize, Western Caribbean Sea) on November 2005, several qualitative benthic samples from different habitats and substrate types (*Thalassia testudinum* shoots, fragments of dead hard corals, sponges) have been analyzed. In some of these samples, specimens of Sabellidae were found, revealing, together with some taxa already known for the area, the presence of two new species, *Megalomma fauchaldi* **sp. nov.**, and *Pseudoaugeneriella spongicola* **sp. nov.**, this latter representing a genus newly reported from the Caribbean. Sabellidae biodiversity and systematics between Caribbean and Mediterranean regions is also compared.

Key words: Caribbean Sea, polychaetes, Sabellidae, taxonomy, biogeography, Mediterranean Sea, *Megalomma fauchaldi*, *Pseudoaugeneriella spongicola*

Introduction

According to Tovar-Hernández and Salazar-Vallejo (2006), Sabellidae from the Gran Caribbean region have been poorly studied in the past. At present, however, recent revisions of some genera have led to an increase in the number of species for the area: this is the case for *Branchiomma*, with the description of two new species and records of other species new for the area (Tovar-Hernández and Knight-Jones, 2006); as well as for *Chone* with the description of five new species and record of other species new for the area (Tovar-Hernández, 2005). The Caribbean region represents, therefore, an area that gives a good opportunity for sabellid systematics and biodiversity studies.

In the framework of a research on taxonomic revision and ecology of selected families of polychaetes conducted at the Carrie Bow Cay field station (Western Caribbean, Belize) of the Smithsonian Institution (Washington DC, USA), several qualitative benthic samples from different habitats and substrate types have been analysed. In some of these samples, specimens of Sabellidae were found, two of which belong to new species here described. Due to the high importance of the Carrie Bow Cay field station to maintain inventories for scientific marine studies in the Caribbean Sea (Ruetzler and Macintyre, 1982), we consider important to include in this report, together with the description of these new taxa, also the species already known for the geographic area. In fact, up to now, only six species of sabellids have been reported for Carrie Bow Cay, all being descriptions of new species (Fitzhugh 1983; Rouse 1993, 1994; Rouse and Gambi, 1997). Four fabriciini worms: *Fabriciolla flammula* Rouse, 1993, *F. parvus* Rouse, 1993, *Novafabricia infratorquata* (Fitzhugh,