

## Iospilids (Polychaeta: Iospilidae) from the northwest Caribbean Sea, with observations on reproductive structures

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### Abstract

Iospilids are a small, inconspicuous group of holopelagic polychaetes that dwell in the upper layers of tropical, temperate, and cold waters of the world. Representatives of this interesting and infrequent group were collected during four oceanographic cruises off the eastern coast of the Yucatan Peninsula, northwest Caribbean Sea. Three of the four species currently known in the family were recorded: *Iospilus phalacroides* Viguier, 1886, *Phalacrophorus pictus* Greeff, 1879, and *P. uniformis* Reibisch, 1895. The latter was the most common species in the area; it occurred during the four cruises and represented more than 92% of the total iospilid specimens caught; it was slightly more abundant in nighttime samples. New observations of reproduction-related morphological variations and sexual dimorphism are presented for *P. uniformis*. These may be regarded as morphological adaptations to the planktic mode of life thus favouring the efficiency of the reproductive process in the water column. These are the first records of the family Iospilidae in the Caribbean Basin. Revised generic and species diagnoses, taxonomic illustrations and notes, and an identification key are given here for the species recorded in the Caribbean.

**Key words:** zooplankton, taxonomy, marine biology

### Introduction

Iospilidae Bergström, 1914 is a small group of pelagic polychaetes currently considered closely related to the Phyllodocidae. Uschakov (1972) regarded them as a phyllodocid subfamily, but Day (1967), Dales (1972), and Fauchald (1977) gave them family status arguing that iospilids differ in relevant characters with respect to the phyllodocid pattern. Currently, iospilids are contained in the clade Palpata, Aciculata, Phyllodocida, as a minor taxon (Rouse & Pleijel 2001). One of the distinctive characters of the iospilids is the presence of median parapodia longer than anterior ones (Rouse & Fauchald 1997).