

## On adult and larval morphology of *Polydora cornuta* Bosc, 1802 (Annelida: Spionidae)

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### Abstract

The spionid mudworm *Polydora cornuta* Bosc, 1802 (formerly *Polydora ligni* Webster, 1880) is redescribed based on museum and new material collected in temperate and subtropical zones worldwide. Previously unobserved features are noted, including arrangement of lateral ciliated organs on all chaetigers but 4 and 5, metanephridial organs and glandular pouches beginning from chaetiger 7. Larval morphology is described and illustrated based on material from Brazil. The larvae are characterized by middorsal vesiculate melanophores from chaetiger 3 or 4, dorsal paired melanophores band-shaped from chaetiger 3 and ramified from chaetiger 7 or 8, large ramified yellow chromatophores on ventral side from chaetigers 5–7, specific modified chaetae in notopodia of chaetiger 5, and hooks in neuropodia from chaetiger 7 not accompanied by any other kind of chaetae. Some differences from earlier descriptions of larvae from Europe and North America are highlighted. Consistent morphological differences between adults from distantly separated populations, as suggested in earlier studies, were not revealed and all the examined materials are referred to one species.

**Key words:** Spionidae, *Polydora cornuta*, morphology, taxonomy, reproduction, larval development

### Introduction

*Polydora cornuta*, the type species of *Polydora* Bosc, 1802, was originally described by Bosc (1802) from intertidal sites in Charleston Harbor, South Carolina. The original description was brief, based on small individuals. The type material had been lost and the species considered indeterminable until Blake and Maciolek (1987) designated a neotype and demonstrated that *P. cornuta* is a senior synonym of *P. ligni* described by Webster (1880) from New Jersey. Mainly by name *P. ligni*, the species has been reported from