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The Orbiniidae (Annelida: Polychaeta) of Pacific Costa Rica

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Abstract

Seven species of Orbiniidae are described from the Pacific coast of Costa Rica including two new species. *Leodamas hamatus* n. sp., a commonly occurring species on the coast of Pacific Costa Rica, is described from 11–18 m in the Gulf of Nicoya and Bahia Culebra. This species is unusual in that the neuropodial uncini differ morphologically from anterior to posterior in the thorax. *Scoloplos cryptospinigerus* n. sp. is described from 18–22 m in the Gulf of Nicoya and has only a few short, toothed spines amidst numerous capillary setae in most of the thoracic neuropodia. This arrangement of thoracic neurosetae is unusual and has been seen only in one other described species of *Scoloplos* from Australia.

Key words: Polychaeta, Orbiniidae, *Leitoscoloplos*, *Leodamas*, *Naineris*, *Scoloplos*, Eastern Pacific, new species

Introduction

The polychaete fauna of the Central American eastern Pacific coast, while now better known, has not yet been adequately characterized. Dean (2009) reviewed the polychaete literature and reported 583 known species of polychaetes from the Pacific coast of Central America between El Salvador and Panama. However, this total is believed to be an underestimation of polychaete diversity because very few samples have been collected in El Salvador, Honduras and Nicaragua. In the more extensively sampled countries, the number of reported species is lower than expected. Costa Rica, for example, has been relatively well sampled (Dean 1996 a, b; 1998 a, b; 2001 a, b; 2009; Dean & Blake 2007; 2009; Vargas 1987; 1988; Vargas *et al.* 1985) but Dean (2009) listed only 317 species from the Pacific coast and this is believed to be an underestimate. This is shown by Dean *et al.* (2012) who sampled the polychaete fauna of Cocos Island and reported 12 species new to Pacific Central America and about 41 new records for Pacific Costa Rica. It is apparent that future work will reveal a much richer polychaete fauna for Costa Rica and the Tropical eastern Pacific in general.

The orbiniids are burrowing deposit feeders commonly found in shallow water and intertidal muds and sands. Early work in the tropical eastern Pacific included Chamberlin (1919) who described *Scoloplos* (*Leodamas*) *latum* Chamberlin, 1919 and Monro (1933) who described *Haploscoloplos panamensis* (Monro, 1933, both from Pacific Panama. Fauchald (1972) described *Califia mexicana* Fauchald, 1972, *Haploscoloplos mexicanus* Fauchald, 1972, and *Scoloplos* (*Leodamas*) *mazatlanensis* Fauchald, 1972, all from deep waters in the eastern Pacific off Mexico. De León-González & Rodríguez (1996) described *Leitoscoloplos bajacaliforniensis* de León-González & Rodríguez, 1996 from the Pacific side of the Baja California peninsula. López *et al.* (2003) described two new species of *Leodamas*, *L. minutus* López, Caldera & San Martín 2003 and *L. platythoracicus* López, Caldera & San Martín, 2003, and López *et al.* (2006) described *Orbinia oligopapillata* López, Claders, & San Martín, 2006, all from Coiba Island off the Pacific coast of Panama. More recently, Hernández-Alcántara & Solís-Weiss (2014) have analyzed three species of *Leitoscoloplos*, including a new species, *L. multipapillatus* Hernández-Alcántara & Solís-Weiss, 2014, from the Gulf of California. Here seven species of orbiniids are described, from Bahia Culebra, the Gulf of Nicoya, and Golfo Dulce, Costa Rica, including descriptions of two new species.