



Lumbrineridae (Polychaeta) from the Portuguese continental shelf (NE Atlantic) with the description of four new species

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Abstract

The present study reports four new species of the Family Lumbrineridae Schmarda, 1861, three in the genus *Lumbrineris* de Blainville, 1828 and one in the genus *Gallardoneris* Carrera-Parra, 2006. The new species were found on the Portuguese continental shelf at water depths ranging from 11 to 190 m. *Gallardoneris iberica* **sp. nov.** is the first record of this genus in the Atlantic Ocean and can be distinguished from the other two known *Gallardoneris* species by the distribution of the composite and the simple multidentate hooded hooks and the shape of the parapodial lobes. *Lumbrineris luciliae* **sp. nov.** has an arcuate, unidentate MIII and MIV unidentate with well-developed plate, digitiform wide basally postchaetal lobes in anterior parapodia, composite multidentate hooded hooks with short blade. Furthermore, *L. luciliae* **sp. nov.** has simple multidentate hooded hooks of two sizes, preacicular hook twice as big as postacicular hook, and distally curved aciculae in median and posterior parapodia. Both *Lumbrineris lusitanica* **sp. nov.** and *Lumbrineris pinaster* **sp. nov.** are characterized by having MIII unidentate followed by a knob. However, *L. lusitanica* **sp. nov.** has digitiform wide basally postchaetal lobes in the anterior parapodia, composite multidentate hooded hooks with short blade and simple multidentate hooded hooks with short hood; while *L. pinaster* **sp. nov.** has auricular postchaetal lobes in the anterior parapodia, composite multidentate hooded hooks with long blade, and simple multidentate hooded hooks with short and long hood. A multivariate analysis was performed upon morphological characteristics and validates the separation of the four new species. A taxonomic key to lumbrinerid species from Iberian waters is included.

Key words: Western Iberia, Portugal, lumbrinerids, first record, taxonomic key

Introduction

Lumbrinerids are commonly found at continental shelf depths, in muddy and sandy sediments. They have a simple body shape with reduced external morphological characters and a wide variety of maxillary characters. The Family Lumbrineridae Schmarda, 1861 comprises more than 200 valid species worldwide recognized in 13 genera. For the Iberian waters, a total of 19 valid species have been recorded, belonging to the following genera: *Abyssoninoe* Orensanz, 1990, *Augeneria* Monro, 1930, *Hilbigneris* Carrera-Parra, 2006, *Lumbricalus* Frame, 1992, *Lumbrineris* de Blainville, 1828, *Lumbrinerides* Orensanz, 1973, *Ninoe* Kinberg, 1875 and *Scoletoma* de Blainville, 1828 (Ramos 1976; Campoy 1982; Núñez *et al.* 1991; Parapar *et al.* 1994; Aguirrezabalaga & Carrera-Parra 2006; Cacabelos *et al.* 2008). In Atlantic waters, the genus *Gallardoneris* was unknown until now, being only recorded from the Pacific. It includes two species, *G. shinoii* (Gallardo) and *G. thailandensis* Carrera-Parra. This genus is easily differentiated from others mainly by the presence of four pairs of maxillae, with MIV having a whitish central area, and totally fused mandibles (Carrera-Parra 2006a). In contrast, several species of the genus *Lumbrineris* are known from European waters. *Lumbrineris latreilli* Audouin & Milne Edwards, *Lumbrineris coccinea* Renier and *Lumbrineris futilis* Kinberg are the most extensively reported, from the cold waters of the North Sea and northeast Atlantic as well as from the warmer Mediterranean Sea (e.g. Fauvel 1923; George & Hartmann-Schröder 1985; Núñez *et al.* 1991; Carrera-Parra 2006b; Aguirrezabalaga & Carrera-Parra 2006; Cacabelos *et al.* 2008). Recently, the presumed cosmopolitan distribution of some lumbrinerids has been questioned since several species are closely related and