



Description of three new species of *Eumida* Malmgren, 1865 (Phyllodocidae, Annelida) from Southern and Southeastern Brazil

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Abstract

We describe three new species of *Eumida* from shallow estuarine and shelf bottoms from south and southeastern Brazil as part of a regional survey of the family Phyllodocidae. Previous regional records of *Eumida sanguinea* (Örsted, 1843) are herein referred to *Eumida dracodermica* **sp. nov.** The two species differ in the size of the prostomium, the distribution of micropapillae on the proboscis, and the shape of the dorsal cirri. *Eumida macrophthalma* **sp. nov.** has much larger eyes than the other two species described herein. The dorsal cirri on anterior median segments are rounded and on median and posterior segments they are asymmetrical and cordiform, longer than the dorsal cirri in *Eumida dracodermica* **sp. nov.** The lanceolate median dorsal cirri in *Eumida delicata* **sp. nov.** are only shared with *E. ockelmanni* Eibye-Jacobsen, 1987. It is also possible to diagnose the three species by their dorsal whitish pigmentation patterns on the first segments of living or well conserved animals.

Key words: *Eumida*, Phyllodocidae, taxonomy, morphology

Introduction

Eumida was erected by Malmgren (1865) for *Eulalia sanguinea* Örsted, 1843, based on the absence of papillae on the surface of the proboscis, tentacular cirri positioned below the base of the prostomium, and the dorsally reduced first segment. These diagnostic characters separated this species group from *Eulalia* Savigny, 1922. Subsequently, *Eumida* was treated as a subgenus of *Eulalia* because of inconsistencies in diagnostic characters, such as the smooth surface of the proboscis (Saint-Joseph 1888; Fauvel 1923). Claparède (1868, 1870) considered that there were mistakes in the original descriptions of the antennae and the first pair of tentacular cirri in *Eumida*; however, he mistakenly based the genus on the presence of a small ventral cirrus on the third segment, which he considered to be absent in *Eulalia*. In fact, both genera possess ventral cirri on the third segment (Eibye-Jacobsen 1991).

Taxonomic problems are further complicated by the subtle morphological differences used to separate *Eumida* from the other phyllodocid genera with five antennae, especially *Sige* Malmgren, 1865 and *Pirakia* Bergström, 1914. For example, *Sige* was synonymized with *Eumida* by Levinsen (1883), and *Pirakia* was considered as a subgenus. However, both differ from *Eumida* in the morphology of the proboscis and neuropodia. According to Eibye-Jacobsen (1991), the central problem in solving the real status of *Eumida* was the brief description of the type species (*Eulalia sanguinea* Örsted, 1843) and the absence of type material, which caused significant confusion in the later allocation of these four genera or subgenera (Levinsen 1883; Grube 1860; Day 1967; Hartmann-Schröder & Stripp 1968; Hartman & Fauchald 1971; Ushakov 1972; Fauchald 1977a, b). To solve these problems, the genus *Eumida* was re-described based on a neotype from the type locality (N Oresund, Denmark; Eibye-Jacobsen 1991).

The genus is currently characterized by a triangular prostomium, pentagonal to rounded, usually longer than wide, with paired frontal antennae and palps. *Eumida* also has a median antenna that varies in length and position according to the species. The nuchal organs are located dorsally at the posterior edge of the prostomium and the