



New and previously known species of Oeonidae (Polychaeta: Annelida) from Lizard Island, Great Barrier Reef, Australia

JOANA ZANOL^{1,2*} & CHRISTINE RUTA³

¹*Campus Xerém, Universidade Federal do Rio de Janeiro, Duque de Caxias, RJ, Brazil.*

²*Laboratório de Polychaeta, Departamento de Zoologia, Universidade Federal do Rio de Janeiro. Av. Carlos Chagas Filho, 373 CCS, Bloco A, Sala A0-108—Cidade Universitária, Rio de Janeiro, RJ, 21941-599, Brazil.*

³*Laboratório de Invertebrados, Núcleo em Ecologia e Desenvolvimento Sócio-Ambiental de Macaé. Campus Macaé, Universidade Federal do Rio de Janeiro, Macaé, RJ, Brazil.*

*Corresponding author: joanzanol@ufrj.br

Abstract

The family Oeonidae consists of Eunicida species with prionognath jaws. Its Australian fauna had been reported to comprise six species belonging to *Arabella*, *Drilonereis*, and *Oenone*. This study provides descriptions for four new species, redescriptions for three species (two previously recorded and a new record, *Drilonereis* cf. *logani*) and diagnoses for the genera recorded from Australia. Currently, eleven species of oeonids, distributed in three genera, are known for the Australian coast. On Lizard Island, this family shows low abundance (19 specimens collected) and high richness (seven species). Our results suggest that despite the increasing accumulation of information, the biodiversity of the family is still poorly estimated.

Key words: Taxonomy, systematics, new species, *Arabella*, *Drilonereis*, *Oenone*, taxonomic key, coral reef

Introduction

Oeonidae familial status was first recognized by Kinberg (1865), but later contested by Hartman (1944), who considered it a synonym of Lysaretidae. The family is now resurrected and comprises the genera *Oenone*, *Halla* and *Tanaikoa*, previously placed in Lysaretidae (Colbath 1989a), and the genera *Arabella*, *Biborion*, *Drilognathus*, *Drilonereis*, *Haematocleptes*, *Labrorostratus*, *Notocirrus*, *Oligognathus* and *Pholadiphila* included in the synonymized Arabellidae (Orensanz, 1990). It comprises around 100 described nominal species (Pleijel 2001).

Oeonids have a prionognath maxillary apparatus, a unique feature among recent Eunicida (Orensanz 1990). Some species resemble species of the family Lumbrineridae in general external morphology, but can be distinguished from them by chaetae, jaw apparatus and dorsolateral fold anterior extension of muscularized pharynx (*sensu* Zanol 2010).

The family has a worldwide distribution, occurring from the intertidal zone to abyssal depths, usually in low abundance. Most species live in sand and mud as free-living burrowers. Some are parasites or, at least, have a parasitic phase during their life cycle. Previous records of oeonid species from Australian waters include three species of *Arabella*, two species of *Drilonereis* and one species of *Oenone*. Both species of *Drilonereis* were described from the Australian coast, *D. australiensis* Augener, 1922 and *D. quadrioculata* Hartmann-Schröder, 1979.

The present study is the first to focus on Lizard Island oeonid fauna and includes diagnoses of the recorded genera, *Arabella*, *Drilonereis* and *Oenone*. Four new species are described, two *Arabella*, one for each of the genera *Drilonereis* and *Oenone*. Newly collected material also allowed us to redescribe one species from each of the recorded genera.