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The Oweniidae (Annelida; Polychaeta) from Lizard Island (Great Barrier Reef, Australia) with the description of two new species of *Owenia* Delle Chiaje, 1844

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Abstract

Study of the Oweniidae specimens (Annelida; Polychaeta) from Lizard Island (Great Barrier Reef, Australia) stored at the Australian Museum, Sydney and newly collected in August 2013 revealed the presence of three species, namely *Galathowenia quelis* Capa *et al.*, 2012 and two new species belonging to the genus *Owenia* Delle Chiaje, 1844. *Owenia dichotoma* n. sp. is characterised by a very short branchial crown of about 1/3 of thoracic length which bears short, dichotomously-branched tentacles provided with the major division close to the base of the crown. *Owenia picta* n. sp. is characterised by a long branchial crown of about 4/5 of thoracic length provided with no major divisions, ventral pigmentation on thorax and the presence of deep ventro-lateral groove on the first thoracic chaetiger. A key of *Owenia* species hitherto described or reported in South East Asia and Australasia regions is provided based on characters of the branchial crown.

Key words: Polychaeta, Oweniidae, *Owenia*, *Galathowenia*, coral reef, new species, Australia

Introduction

Oweniidae is a small group of widely distributed suspension and detritivorous polychaetes that comprises four genera (*Galathowenia* Kirkegaard, 1959, *Myriochele* Malmgren, 1867, *Myriowenia* Hartman, 1960, and *Owenia* Delle Chiaje, 1844) and about 59 species (Capa *et al.* 2012). A fifth genus, *Myrioglobula* Hartman, 1967, is considered here a junior synonym of *Myriochele* (Capa *et al.* 2012).

Most findings of Oweniidae from Southern Asia, the Indo-Malay archipelago and Australia during the 19th and 20th century (Fig. 2) were reported as *Owenia fusiformis* Delle Chiaje, 1844, a species originally described from the Mediterranean Sea (Australian West: Hartmann-Schröder 1979, 1980, 1981; Indonesia: Caullery 1944; South Vietnam: Gallardo 1967, as cf.; Solomon Islands: Gibbs 1971; Singapore: Vohra (1972 in Tan & Chou 1993); Japan: Imajima & Morita 1987). In Indonesia, Kirkegaard (1956) also reports *Owenia lobopigidiata* Uschakov, 1950 (originally described from the Sea of Okhotsk). Other genera have also been recorded in the area. For instance, Imajima & Morita (1987) reported three species described from far geographical areas: *Myriochele heeri* Malmgren, 1867 (type locality: Spitsbergen, Norway), *Galathowenia oculata* (Zachs, 1923) (White Sea) and *Galathowenia wilsoni* Blake, 1984 (= *Galathowenia scotiae* (Hartman, 1978); Antarctic seas). New species of oweniids were nevertheless described during the past century, namely *Galathowenia eurystoma* (Caullery, 1944) (Indonesia), *Myriochele heruensis* Gibbs, 1971 (Solomon Islands) and *Galathowenia haplosoma* (Gibbs, 1972) (Cook Islands), but none corresponded to *Owenia*.

At the beginning of this century, the cosmopolitan distribution of *O. fusiformis* is rejected from critical revision of stored and newly collected material along the Indo-Pacific, which also results in the description of a substantial number of new taxa. For instance, *Owenia gomsoni* Koh & Bhaud, 2001 is described from South Korea and *Owenia petersenae* Koh & Bhaud, 2003 from New Zealand (Koh & Bhaud 2001, 2003). Three further species of *Owenia* are described in Australia by Ford & Hutchings (2005) from specimens previously referred to as *Owenia*