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 oeniiids were nevertheless described during the past century, namely Galathowenia eurystoma (Caullery, 1944) (Indonesia), Myriochele herensis 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...