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New records of *Cotylea* (Polycladida, Platyhelminthes) from Lizard Island, Great Barrier Reef, Australia, with remarks on the distribution of the *Pseudoceros* Lang, 1884 and *Pseudobiceros* Faubel, 1984 species of the Indo-Pacific Marine Region

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Abstract

In the present work eleven polyclad species of Lizard Island are studied. Seven of them are new records for this locality of the Australian coral reef and one is new to science, *Lurymare clavocapitata* n. sp. (Family Prosthiostomidae). The remaining recorded species belong to the genera *Pseudoceros* (*P. bimarginatus*, *P. jebborum*, *P. stimpsoni*, *P. zebra*, *P. parataliclavus* and *P. prudhoei*) and *Pseudobiceros* (*Pb. hancockanus*, *Pb. hymanae*, *Pb. flowersi* and *Pb. uniARBorensis*). Regardless of the different distribution patterns, all pseudocerotid species show brilliant colours, but similar internal morphology. Furthermore, differences in the form and size of the stylet are characteristic, because it is a sclerotic structure that is not affected during fixation. In *Pseudoceros*, the distance between the sucker and the female pore also differs among species. These features do not vary enough to be considered as diagnostic, but they provide information that can help to disentangle similarly coloured species complexes. A key of the genera *Pseudoceros* and *Pseudobiceros* of the Indo-Pacific region is provided, in order to facilitate the identification of species from this area.

Key words: *Pseudoceros*, *Pseudobiceros*, key, *Lurymare*

Introduction

In the present study eleven species belonging to the suborder *Cotylea* (Polycladida, Platyhelminthes) from Lizard Island are studied. These species belong mainly to *Pseudoceros* and *Pseudobiceros*, both genera with a high biodiversity in the Indo-Pacific. Additionally, a new species belonging to the genus *Lurymare* (Family Prosthiostomidae) is described. The distribution of *Lurymare* (actually four species) is characteristic for the Indo-Pacific region, with the exception of *L. drygalskii* (Bock, 1931), Marcus & Marcus 1968 and *L. utarum* Marcus, 1952. *Lurymare drygalskii* was described from Simon's Bay (or Simon's Town, South Africa) (Bock 1931) near the Indo-Pacific region. *Lurymare utarum* has been found in Brazil, Florida and Colombia (Marcus 1952; Quiroga *et al.* 2004a; Bahia *et al.* 2014). *Pseudoceros* Lang, 1884 (87 species) and *Pseudobiceros* Faubel, 1984 (37 species) are characteristic for tropical and subtropical waters (Tyler *et al.* 2006–2015). The geographic distribution of most species of *Pseudoceros* and *Pseudobiceros* is restricted to the Indo-Pacific region. Most of the species have been reported from Japan, with more than 20 records (Yeri & Kaburaki 1918; Kaburaki 1923; Kato 1944), and from the Indo-West Pacific region, with 57 records for *Pseudoceros* (Newman & Cannon 1994a, 1998; Tyler *et al.* 2006–2015) and 26 for *Pseudobiceros* (Newman & Cannon 1997, Tyler *et al.* 2006–2015). However, some species have been found in the Mediterranean (Lang 1884), Brazil (Marcus 1950), California (Hyman 1953), Galapagos Islands (Plehn 1896), Bermudas (Verrill 1905; Quiroga 2008), and Puget Sound, British Columbia (Hyman 1953). The latter report is unexpected due to the distribution of these genera seems to be limited to warm waters.

Throughout the nineties and early 2000s, Leslie Newman, Lester Cannon and collaborators made a series of