

A new species of *Coelopleurus* (Echinodermata: Echinoidea: Arbaciidae) from New Caledonia

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Abstract

Coelopleurus exquisitus sp. nov. Coppard & Schultz, 2006 occurs at depths of 240 m to 520 m off of New Caledonia in the South Pacific. This new species is distinctive in having large naked interambulacral median regions that are purple with an undulating lavender line, in conjunction with highly curved primary spines that are banded red and pale-green on their dorsal surface for three quarters of the distal length, pointed secondary spines and aboral ophicephalous pedicellariae that have constricted valves.

Key words: Echinoid, Arbaciidae, *Coelopleurus exquisitus* sp. nov. Coppard & Schultz, 2006, New Caledonia, taxonomy

Introduction

Coelopleurus L. Agassiz, 1840 is a genus of regular sea urchin in the family Arbaciidae Gray, 1855. This family differs from other stirodont echinoids by its distinctive compound plates which have a large central element bearing a tubercle, flanked by upper and lower demiplates, and by the presence of four or five equal, triangular, valve-like periproctal plates (Mortensen, 1935). It has recently been proposed that the genus *Coelopleurus* is composed of four subgenera (Smith, in press): *C. (Coelopleurus)* Agassiz, in Agassiz and Desor, 1846 (Eocene and Oligocene, Europe, North Africa, North America, India); *C. (Keraiophorus)* Michelin, 1862 (Oligocene to Recent, Pakistan, Indo-Pacific, Caribbean); *C. (Murravechinus)* Tate, 1894 (Miocene, Australia.) and *C. (Phrissopleurus)* Pomel, 1883 (Middle Eocene, France). All Recent species of *Coelopleurus* would therefore be attributed to the subgenus *C. (Keraiophorus)* which is distinguished by its compound ambulacral plates which are composed of only three elements (four in *C.*