



***Pseudopataecus carnatobarbatus*, a new species of velvetfish (Teleostei: Scorpaeniformes: Aploactinidae) from the Kimberley coast of Western Australia**

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Abstract

Pseudopataecus carnatobarbatus, new species, is described from 12 specimens collected on shallow coastal reefs of northern Western Australia, between the Monte Bello Islands and Adele Island. It is distinguished from its sole congener, *P. taenianotus* Johnson 2004, by branched (versus simple) tips to most fin rays, last soft dorsal-fin ray joined by membrane more fully to upper caudal-fin ray, spinous dorsal fin more distinctly notched, pelvic fins more robust, anterior face of lower lip smooth (versus profusely covered with cirri), and a narrow quadrangular pit on the forehead, bounded by frontal, supraorbital, ocular and preocular ridges (versus pit and preocular ridge absent). It also has modally fewer anal-fin rays and modally greater numbers of gill rakers. *Pseudopataecus carnatobarbatus* is found in an extremely high tidal range area of Australia, where movement of up to 11 m occurs during spring tides. Specimens were collected in rocky tide pools with coral rubble and thick stands of brown macroalgae, especially *Padina* species. The new species has been found in intertidal areas up to only 13 m deep, whereas *P. taenianotus* has been collected by trawling soft bottom habitats in depths of 20 to 63 m.

Key words: *Pseudopataecus carnatobarbatus*, new species, Aploactinidae, velvetfish, Western Australia, Kimberley coast

Introduction

The genus *Pseudopataecus* was previously represented by a single species, *P. taenianotus*, known only from specimens trawled inside the Capricorn-Bunker Group of subtropical Queensland (Johnson 2004; Hoese *et al.* 2006). That species appears to be restricted to a narrow range of soft-bottom habitats in an area of the Queensland coast covering a distance of approximately 100 nautical miles from north to south.

Examination of unidentified aploactinid specimens from Monte Bello Islands and Cape Leveque, Western Australia, in the collections of the Museum and Art Gallery of the Northern Territory, revealed the existence of a second species with features unique to *Pseudopataecus* (markedly compressed head and body; large number of dorsal and anal-fin ray elements; frontal part of cranium with laterally-bowed ridges forming a shallow fleshy depression; and distinctly anterior insertion of the first dorsal spine). Additional specimens of the new species were collected and observed during a recent marine faunal survey of the Kimberley region. The Woodside Collection Project – Kimberley (Woodside 4) was undertaken to document fishes and other marine fauna and flora of the reef systems of the inshore Kimberley. In October 2009 collections made in tidal rock pools at Adele Island and Montgomery Reef produced an additional nine specimens from five separate sites. Several individuals were also observed at high tide at the same localities whilst scuba diving in depths of up to 10 m. The new species is described and illustrated herein and compared in detail to its congener.

The Aploactinidae (velvetfishes) now comprises 48 species belonging to 17 genera (Poss & Eschmeyer 1978; Fricke 2004; Johnson 2004; Imamura & Shinohara 2004, 2008; Poss 1999; Hoese *et al.* 2006; Imamura *et al.* 2010; Prokofiev 2010; Eschmeyer & Fricke 2012). Twenty-one species in 14 genera are now known from Australian waters (Johnson 2004; Hoese *et al.* 2006; this paper).