



## Article

### ***Microgobius urraca* (Teleostei: Gobiidae), a new species of goby from the tropical eastern Pacific**

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#### Abstract

A new species of goby in the genus *Microgobius* (Teleostei: Gobiidae: Gobiosomatini) is described from the Pacific coast of Panama. It is morphologically similar to *M. erectus*, but differs from that species in possessing fewer lateral scale rows, lacking a patch of ctenoid scales under the pectoral fin, having unpigmented epaxial myosepta, having a distinct oval-shaped dark blotch on the first dorsal fin, and possessing three blue-white stripes on a dark caudal fin. Differences in both the number and type of scales, dorsal and anal fin ray counts, the poor development of a fleshy dorsal crest, and overall color patterns further distinguish this species from the remaining eastern Pacific congeners. Photographs of all Pacific species of *Microgobius* and a dichotomous key to the Pacific members of the genus are provided.

**Key words:** Gobiosomatini, *Microgobius* group, Gobiiformes, Panama, American seven-spined gobies

#### Introduction

*Microgobius* Poey 1876 is a genus of American seven-spined gobies (tribe Gobiosomatini) that currently includes six species from tropical and warm temperate waters in the western Atlantic and eight species in the tropical eastern Pacific. Western Atlantic species include *Microgobius carri* Fowler 1945, *M. gulosus* (Girard 1858), *M. meeki* Evermann and Marsh 1899, *M. microlepis* Longley and Hildebrand 1940, *M. signatus* Poey 1876, and *M. thalassinus* (Jordan and Gilbert 1883), while *M. brevispinis* Ginsburg 1939, *M. crocatus* Birdsong 1968, *M. curtus* Ginsburg 1939, *M. cyclolepis* Gilbert 1890, *M. emblematicus* (Jordan and Gilbert 1882), *M. erectus* Ginsburg 1938, *M. miraflorensis* Gilbert and Starks 1904, and *M. tabogensis* Meek and Hildebrand 1928 are restricted to the eastern Pacific. Species of *Microgobius* often have bright color patterns in life that feature silvery bodies with iridescent blue, green, red and yellow marks on the head, body or median fins. Sexual dimorphism in color patterns, cranial osteology, dorsal fin spines, and the development of a fleshy dorsal crest occurs in several species. Most species of *Microgobius* are found associated with fine sediments in estuaries and shallow coastal waters while some are associated with burrows, roots and open sandy areas. Several species are common in depths less than 1 m whereas other species reach depths of at least 57 m (Birdsong 1981; Robertson and Allen 2008).

The genus was last treated in its entirety in a taxonomic review by Birdsong (1981). Several subsequent studies have addressed the relationship of *Microgobius* to other gobiid genera. Birdsong *et al.* (1988) placed the genus in the *Microgobius* group of the Gobiosomatini, together with *Bollmannia*, *Parrella* and *Palatogobius*. This was based on shared pterygiophore insertion patterns, vertebral counts, the presence of one epural and the absence of fusion of hypural 1–2 with 3–4 and the terminal caudal element. *Akko* and *Antilligobius* have since been added to the *Microgobius* group based on both molecular and morphological data (Rüber *et al.* 2003; Van Tassell and Baldwin 2004; Van Tassell *et al.* 2012). A clear sister genus to *Microgobius* has yet to be established. Monophyly of *Microgobius*, of the *Microgobius* group, and of the tribe Gobiosomatini is strongly supported by recent molecular phylogenetic analyses (Rüber *et al.* 2003; Thacker and Roje 2011).