



<http://dx.doi.org/10.11646/zootaxa.3990.1.6>

<http://zoobank.org/urn:lsid:zoobank.org:pub:915ED168-EDD0-4008-BCC4-9E7ACCE6655A>

***Lepadichthys bilineatus*, a new species of clingfish from Oman (Teleostei: Gobiesocidae), with a redescription of *Lepadichthys erythraeus* Briggs and Link from the Red Sea**

MATTHEW T. CRAIG^{1,5}, SERGEY V. BOGORODSKY², JOHN E. RANDALL³ & AHMAD O. MAL⁴

¹National Marine Fisheries Service, Southwest Fisheries Science Center, 8901 La Jolla Shores Drive, La Jolla, CA 92037, USA.

E-mail: matthew.craig@noaa.gov

²Station of Naturalists, Tulenina str. 13-29, Omsk, RUSSIA. E-mail: ic187196@yandex.ru

³Bishop Museum, 1525 Bernice Street, Honolulu, HI 96817. E-mail: jackr@hawaii.rr.com

⁴Marine Biology Department, Faculty of Marine Sciences, King Abdulaziz University, Jeddah, KSA. E-mail: aomal@kau.edu.sa

⁵Corresponding author

Abstract

Lepadichthys bilineatus is described as a new species of gobiesocid fish from a single specimen, 23.5 mm in standard length, collected from 1.5 m in a tidepool on the southeastern coast of Oman. It is distinct from other *Lepadichthys* species in having the following combination of characters: dorsal-fin rays 16; anal-fin rays 13; pectoral-fin rays 23; principal caudal-fin rays 10; gill rakers 10 on second and third arch; head large, its length 3.1 in SL; body depth 8.0 in SL; disc single; disc length 6.6 in SL; disc width 6.5 in SL; color in alcohol uniform tan; color when fresh: body grayish blue, grading to brownish red posteriorly; head dark brown dorsally, abruptly pale yellowish below eye, with two whitish lines extending posteriorly and slightly ventrally from eye. *Lepadichthys erythraeus*, a species thus far known only from the Red Sea, is redescribed based on additional diagnostic characteristics and color photos.

Key words: Diademichthyinae, Sea Urchin, Crinotoxin, Coral Reef

Introduction

The clingfish family Gobiesocidae is represented in all tropical to warm temperate seas, and a few species are found in fresh water. The common name “clingfishes” refers to their thoracic sucking disc, modified from the pelvic and pectoral fins of one spine and 4 rays, with which they adhere to hard substratum. They have a single dorsal fin without spines; the anal fin also lacks spines. There are no scales, and no swimbladder (Briggs 1955). A skin toxin was discovered by the third author in two species, the long-snouted *Diademichthys lineatus* (Sauvage 1883) and *Lepadichthys frenatus* Waite 1904 (Hori *et al.* 1979). It is very bitter to the taste. Recently, Conway *et al.* (2014) described the presence of a putative venom gland associated with the subopercle in the clingfish genera *Acyrtus* and *Arcos* from the western Atlantic. We expect that other clingfishes will be found to secrete a crinotoxin for defense and may also possess venom glands.

Briggs (1955) revised the Gobiesocidae, which he divided into eight subfamilies, distinguished principally by the number of gill arches, whether the gill membranes are attached to the isthmus of the gills, and whether the thoracic disc is double or single. He recognized 33 genera and 93 species. With the description of the new species, there are now 48 genera and 160 valid species (Eschmeyer & Fricke 2015; present paper). The clingfish genus *Lepadichthys* Waite comprises eleven described species confined to the Indo-West Pacific (Briggs 2001; Allen & Erdmann 2012).

A small specimen of an unidentified clingfish was collected from a tidepool at Rahah Bay (16°57'N, 54°49'E) on the southeastern coast of Oman in 1993 by J.E. Randall and Ian McLeish. We are not aware of any additional specimens. With 3 gill arches and the gills attached to the isthmus, the specimen is classified in the Diademichthyinae, following the synopsis of the subfamilies in Briggs (1955). In having a short, broad snout, a