



## Redescription of the Red Sea gobiid fish *Ctenogobiops maculosus* (Fourmanoir) and validation of *C. crocineus* Smith

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### Abstract

The shrimp-associated gobiid fish *Ctenogobiops maculosus*, briefly described by Fourmanoir (1955) from one specimen from the southern Red Sea, is redescribed and illustrated with underwater photographs. A diagnosis is given for the closely related *C. crocineus* Smith 1959, also with underwater photographs. *Ctenogobiops maculosus* is presently known only from the Red Sea. *Ctenogobiops crocineus* is wide-ranging from the Red Sea, and Indian Ocean (type locality, Seychelles), to the western Pacific, with records from the Great Barrier Reef and the Ryukyu Islands. The record of *C. maculosus* from Taiwan by Thacker *et al.* (2010) is reidentified as *C. crocineus*, a first record for the island, and their range extension of *C. crocineus* to Fiji is confirmed.

**Key words:** Red Sea, gobiid fishes, *Ctenogobiops*, redescription, validation

### Introduction

Smith (1959) described the gobiid fish *Ctenogobiops crocineus* as a new genus and species from three specimens from the Seychelles. He noted that *Aparrius aurocingulus* Herre, 1935 from Fiji “probably falls here.” Fourmanoir in Roux-Estève & Fourmanoir (1955) described *Cryptocentroides maculosus* from a single specimen from the southern Red Sea. Klausewitz (1960) reclassified it in the genus *Ctenogobiops* and made *C. crocineus* Smith a synonym. Lubbock & Polunin (1977) described three new species of the genus and resurrected *C. crocineus* Smith, adding that they collected it in association with alpheid shrimps from the Red Sea, Seychelles, and Great Barrier Reef. Polunin & Lubbock (1977) reported localities of *C. crocineus* for the Comoro Islands and the Mitsio Islands (NW of Madagascar), noting that it is found in the Seychelles “with burrowing alpheid prawns in sand interspersed with rubble at the edge of coral reefs in water less than 8 m deep.” Goren (1979) included three species of *Ctenogobiops* in a review of the Gobiinae of the Red Sea, *C. klausewitzi* Goren, 1978 (placed in the synonymy of *Amblygobius nocturnus* Herre by Randall, 1995), *C. crocineus*, and *C. maculosus*. Yoshino & Senou (1983) correctly reported *C. crocineus* from Iriomote and Ishigaki, Ryukyu Islands. Randall *et al.* (2003) reviewed the genus *Ctenogobiops* and recognized seven Indo-Pacific species, including *Aparrius aurocingulus* Herre; they again treated *C. crocineus* as a synonym of *C. maculosus*. In 2007 the same authors added two more new species from the western Pacific to the genus *Ctenogobiops*.

The second author concluded from recent fieldwork in the Red Sea that the gobiid genus *Ctenogobiops* is represented there by three species: *Ctenogobiops feroculus* Lubbock & Polunin, 1977 and two species that he identified as *C. crocineus* Smith, 1959 and *C. maculosus* (Fourmanoir, 1955). Because the latest taxonomic decision has the former species as a synonym of the latter, more systematic research on the Red Sea species of the genus was clearly needed.

In view of the inadequate description of *Ctenogobiops maculosus* by Fourmanoir (1955), we acquired data on the holotype of *C. maculosus* for a redescription of the species. We are now able to confirm the validity of *C. crocineus* from morphological study and comparison of live photographs.