



Three new species of the fangblenny genus *Meiacanthus* from Indonesia, with color photographs and comments on other species (Teleostei: Blenniidae: Nemophini)

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Abstract

Three new species of fangblennies are described from Indonesia. *Meiacanthus abruptus* is described based on two specimens, 31.4–36.6 mm SL, from Komodo Island and color photographs of others from Bali. The combination of a white or yellow body color and a single dark mid-lateral stripe that is bluntly rounded at its terminus on the caudal-fin base distinguishes it from other single striped species. This new species closely resembles the allopatric *M. vicinus*, which has the mid-lateral stripe extending farther onto the caudal fin and tapering to a point. *Meiacanthus erdmanni* is described from the only known specimen, 35.8 mm SL, photographed and collected in 65–70 m in Cenderawasih Bay, western New Guinea. One of the deepest known species of *Meiacanthus*, it has two dark mid-lateral stripes and differs from other double-striped species in having a series of dark blotches on the base of the dorsal fin and only 24 segmented dorsal-fin rays. *Meiacanthus cyanopterus*, another deep-water species, is described from seven specimens, 19.8–45.3 mm SL, collected in 40–65 m at three sites in Alor Strait. In life this species has a dorsal fin with a blue-violet stripe bordered above by a wide black stripe. An identification key is provided for all the striped species of *Meiacanthus*, including at least one additional undescribed species previously confused with *M. abditus*. Color photographs of other *Meiacanthus* species and some new distributional records are also given.

Key words: Blenniidae, *Meiacanthus*, taxonomy, Indo-west Pacific

Introduction

The Indo-Pacific fangblenny genus *Meiacanthus* of the blenniid tribe Nemophini is unique among fishes in having a pair of large dentary canines with a deep frontal groove at the base of which is a toxic buccal gland that partially extends into the groove. The toxin delivery system is by mechanical pressure which causes the gland's secretion to flow toward the tip of the canine when the blenny bites a potential predator. As discussed by Springer and Smith-Vaniz (1972) and Smith-Vaniz *et al.* (2001), this action provides an effective defense against most predators, which quickly learn to avoid *Meiacanthus* as prey, thus allowing these small blennies to forage out in the open away from protective cover. At least 11 species of *Meiacanthus* appear to be engaged in mimetic relationships, most as Batesian models, involving 4 families and at least 14 other species of fishes (Smith-Vaniz *et al.* 2001).

A total of 25 valid species of *Meiacanthus* have been described from the Indo-West Pacific. In his monograph of the saber-tooth blennies Smith-Vaniz (1976) recognized three subgenera and 16 species of *Meiacanthus*. In an update of that work (Smith-Vaniz 1987), seven additional new species of *Meiacanthus* were described and the Fijian endemic *Meiacanthus ovalauensis* Günther, previously considered to be a subspecies of *M. atrodorsalis* Günther, was elevated to full species rank. Subsequently, one additional new species, *M. urostigma*, was described from the Similan Islands and northern Sumatra (Smith-Vaniz *et al.* 2001). Three additional species are herein described, bringing the number of currently recognized *Meiacanthus* species to 28 (25 in the subgenus *Meiacan-*