Eviota karaspila, a new gobiid fish from Fiji (Teleostei: Gobiidae)

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Abstract

A new species of goby, Eviota karaspila, most similar to E. melasma, is described from Fiji. It differs from E. melasma in having a larger eye and in live coloration and from E. smaragdus in having a more slender caudal peduncle, and in coloration.

Key words: Teleostei, Gobiidae, Eviota melasma, Eviota smaragdus, Fiji

Introduction

During one of our early fish-collecting trips to Fiji in 1999, the second author noticed a small goby of the genus Eviota of similar color pattern to E. melasma Lachner & Karnella (1980) that he had photographed and collected to the west of Fiji. Both have a conspicuous dark occipital spot, but there was considerable differences in overall color (Figs. 1 and 2). The type specimens of E. melasma are all from the Great Barrier Reef of Australia, but nontype material is listed by Lachner & Karnella (1980: 27, Fig. 10) from Cocos-Keeling Islands and Western Australia in the Indian Ocean and many localities of the western Pacific north to the Ryukyu Islands and east to the Marshall Islands and Samoa Islands. We provide here our underwater photograph (Fig. 3) from Heron Island in the southern Great Barrier Reef and ones from Lizard Island (Figs. 4 and 5) kindly provided by Alonso González-Cabello. As discussed previously (Greenfield and Randall, 2010), earlier workers on the genus Eviota did not have the advantage of color photographs of living or fresh specimens. Because many aspects of the live color patterns are lost in preservation, often with only dark markings remaining, species that are readily distinguished when alive, may seem the same in preservative (Fig. 6). We have concluded from morphological study that the Fiji specimens represent an undescribed species.

Material and methods

Counts and measurements, descriptions of fin morphology and the cephalic sensory-canal pore patterns follow Lachner and Karnella (1980). Measurements were made to the nearest 0.1 mm using an ocular micrometer and dial calipers, and are presented as percentage of Standard Length (SL) or Head Length (HL). All specimen lengths are SL.

Cyanine Blue 5R (acid blue 113) stain was used to make pores more obvious (Akihito et al., 1993; Saruwatari et al., 1997; Akihito et al., 2002). Values for the holotype are given first, followed by the range for all types, and by the mean, where appropriate, in parentheses. Specimens have been deposited in the following museums: CAS & SU—California Academy of Sciences, San Francisco; BPBM—Bernice P. Bishop