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Protoblepharon mccoskeri, a new flashlight fish from eastern Taiwan (Teleostei: Anomalopidae)

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Abstract

A new flashlight fish of the genus *Protoblepharon* is described based on a large male specimen collected from eastern Taiwan, northwestern Pacific Ocean. It differs from the only congener, *P. rosenblatti*, in having the following characters: a smaller light organ with a larger cup; a deeper body; a strongly convex dorsal profile; a smaller and anterior placed pelvic fin, the appressed fin reaching to the midpoint between origins of pelvic and anal fins; a smaller pectoral fin, the appressed fin not reaching the lateral line; second dorsal-fin spine the longest; a shorter snout; a smaller eye; about 30 scale rows between first dorsal-fin base and lateral line; and more than 260 scale rows along the body axis.

Key words: Pisces, Beryciformes, taxonomy, new species

Introduction

In a recent visit to the Fugang fishing port of eastern Taiwan, the first author purchased a large, black fish specimen (305 mm SL, Fig. 1A) awaiting sale in the auction. This specimen proved to be a male flashlight fish (Anomalopidae) of *Protoblepharon*, a genus characterized by having 21 gill rakers (as 4 plates and 17 rod-shaped rakers) on the first arch, a relatively small rotatable light organ, no postorbital papillae, and a very small gap between the lacimal and nasal for passage of the stalk. However, it differs in many aspects from the only congener *Protoblepharon rosenblatti*, a species described by Baldwin et al. (1997) based on a single 220 mm SL specimen collected from the Cook Islands in the south central Pacific Ocean at a depth of 274 m. *Protoblepharon rosenblatti* was mentioned by the latter authors subsequently (Paxton & Johnson, 1999; Randall, 2005), but no additional information was added to that in the original description. The newly collected specimen represents the second specimen and the first record for of the genus in North Pacific Ocean.

The flashlight fish family Anomalopidae currently comprises six genera, three monotypic and three genera with two species each. The purpose of the study is to describe and name a new species of *Protoblepharon* and compare it to its only known congener, *P. rosenblatti*.

Material and methods

The specimen was fixed in 5% formalin, subsequently transferred to 50% isopropanol and deposited in the fish collection of the National Museum of Marine Biology & Aquarium, Taiwan (NMMB-P). A series of detailed photos, a tissue sample (preserved in 95% ethanol) and the sagittal otoliths were taken prior to fixation. Standard length (SL), measured from upper jaw symphysis to posterior end of hypural plate, and head length (HL), measured from upper jaw symphysis to posterior margin of opercle, were used throughout. Predorsal, prepelvic and preanal lengths, measured from upper jaw symphysis to fin origins; body depth, measured at origin of dorsal fin and body width measured at base of pectoral fin; caudal peduncle length, measured in two portions, one from posterior end