

Second Record of the Rare Triggerfish,
Rhinecanthus abyssus Matsuura and Shiobara, 1989
(Actinopterygii, Tetraodontiformes, Balisitidae)
from Sulawesi, Indonesia

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Abstract The rare triggerfish, *Rhinecanthus abyssus* Matsuura and Shiobara, 1989, has been known only from the holotype and two paratypes collected from the Ryukyu Islands, Japan. A single specimen of this rare triggerfish was recently captured by a local fisherman off the northeastern corner of Sulawesi, Indonesia. The Sulawesi specimen of *R. abyssus* extends the distribution range 2,800 km southward.

Key words : Triggerfish, *Rhinecanthus abyssus*, Sulawesi, distribution.

The triggerfish genus *Rhinecanthus* is represented by seven species widely distributed in coral reefs of the tropical Indo-West Pacific (Randall and Steen, 1983; Matsuura and Shiobara, 1989). Most species of this genus are found at depths shallower than 50 m, however, *Rhinecanthus abyssus* was collected from relatively deeper water at depths of 120–150 m (Matsuura and Shiobara, 1989). Since Matsuura and Shiobara (1989) described *R. abyssus* on the basis of only three specimens, no additional specimens have been collected. The second author recently obtained a specimen of this rare triggerfish, collected by a local fisherman from off the northeastern corner of Sulawesi, Indonesia. In the following pages, the Sulawesi specimen of this rare triggerfish is described in detail.

Methods

The methods of counts and measurement fol-

low those of Matsuura (1980) except for the length of dorsal- and anal-fin rays which are measured from the tip of the longest ray to the base of the proximal sheath. The pectoral-fin ray count excludes the uppermost rudimentary ray. The Sulawesi specimen is deposited in the Reference Collection of LIPI Bitung, Technical Implementation Unit for Marine Biota Conservation, Research Centre for Oceanography, Indonesian Institute of Sciences, Bitung, North Sulawesi, Indonesia (LBRC).

Rhinecanthus abyssus Matsuura and
Shiobara, 1989

(Fig. 1)

Material examined. LBRC-F 1954, 167 mm SL (193 mm TL), Girian fish market, Bitung, northeastern corner of Sulawesi, Indonesia, deeper than 75 m but exact depth record unknown, vertical hand line, 30 May 2011.



Fig. 1. *Rhinecanthus abyssus*, LBRC-F 1954, 167 mm SL, Sulawesi, Indonesia (photo by Peguh Peristiwady).

Description. Dorsal rays III+22, the first two rays in the second dorsal fin unbranched; anal rays 19, the first two rays unbranched; pectoral rays 15 (excluding the uppermost rudimentary element), the first dorsal-most and the ventral-most rays unbranched; head scale rows 27; body scale rows 40.

Measurements as proportion of SL: greatest depth of body 2.1, body depth at origin of anal fin 3.0, head length 2.5, snout length 3.1, snout to origin of first dorsal spine 2.2, snout to origin of second dorsal fin 1.5, snout to origin of anal fin 1.4, base of second dorsal fin 4.1, base of anal fin 4.7. Measurements as proportion of head length: body width 2.4, length of gill opening 4.9, eye diameter 5.1, interorbital width 4.7, depth of caudal peduncle 5.7, length of caudal peduncle 3.3, length of first spine 2.5, length of longest (5th) soft dorsal ray 4.1, length of longest (5th) soft anal ray 4.0, length of pectoral fin 2.9, length of caudal fin 2.4.

Body relatively elongate, compressed, covered with rhomboidal, plate-like scales. Snout long, 1.3 in head length; its dorsal profile slightly concave around midway between mouth and eye. No grooves on cheek and in front of eye. Mouth small, terminal with fleshy lips; teeth incisiform,

notched on edges; each upper jaw with four teeth in outer series and three teeth in inner series, the lower jaw with four teeth in a single series. Gill opening slit-like, slightly oblique, above pectoral fin and behind vertical line from posterior margin of eye; a small patch of enlarged scales just behind dorsal end of gill opening. First dorsal fin composed of three spines, originating dorsal to pectoral fin; first dorsal spine long and stout, covered anteriorly with tubercles; second dorsal spine slender, two-thirds of the first in length; third dorsal spine short and slender, projecting slightly above deep median groove extending on back just behind first dorsal spine. Second dorsal and anal fins slightly rounded. Pelvic flap small; encasing scales at posterior end of pelvis movable dorso-ventrally. Caudal peduncle short, tapering toward caudal-fin base; four longitudinal rows of small antrorse spines on side of caudal peduncle, the inner two rows developed, the other rows small and weak.

Color when fresh: Dorsal half of body brownish gray with yellowish-orange tinge, ventral half white; a large elliptical black area around anus; a broad black bar on caudal peduncle, edged with bluish-white anteriorly and posteriorly; a wide dark brown band tapering from interorbital re-

gion through eye toward pectoral-fin base; three narrow black lines in this dark brown band originating at the dorsal edge of eye and crossing the interorbital region to the opposite eye; a narrow black line running from postero-ventral edge of eye to ventral part of gill opening, continuing onto pectoral-fin base; a narrow yellow line on proximal part of pectoral fin; first dorsal fin dark brown with a reddish-brown line curving from above the second dorsal-spine base to below the second dorsal-spine tip; basal sheath of second dorsal fin dark brown; second dorsal, anal and pectoral fins pale; caudal fin yellow anteriorly, pale posteriorly.

Remarks. Morphological characters of the Sulawesi specimen are almost the same as those found in the type specimens of *R. abyssus*. However, the Sulawesi specimen was collected in better condition with fresh coloration showing clearly the yellowish-orange tinge on the dorsal half of the body, the narrow black lines in the dark brown band running from the interorbital region to the pectoral-fin base, and the crescent-like orange line in the membrane of the first dorsal fin. As in the case of the type specimens, the Sulawesi specimen was collected in relatively deep water. This is why additional specimens of *R. abyssus* have not been collected since the original

description. Judging from the type locality and the collection site in Sulawesi, this species is probably distributed widely in the tropical western Pacific.

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