

## A New Sharpnose Pufferfish, *Canthigaster flavoreticulata*, Collected from the South Pacific

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**Abstract** A new sharpnose pufferfish, *Canthigaster flavoreticulata*, is described on the basis of two specimens collected from the Tonga Submarine Ridge in the South Pacific. This species is distinguished from other congeners by having many wavy yellow lines on the dorsal half of the body.

The sharpnose pufferfishes belonging to the tetraodontid subfamily Canthigasterinae were reviewed by Allen and Randall (1977). They recognized 22 species in the Indo-Pacific and one in the Atlantic. Subsequently, Lubbock and Allen (1979) described *Canthigaster leoparda* from the central Indo-Pacific.

Two specimens of sharpnose pufferfish representing a new and 25th species of *Canthigaster* were found while examining the fish collection of the Far Seas Fisheries Research Laboratory at Shimizu. They were collected with a trawl from the R/V *Kaiyo-maru* at depths between 98 and 111 m on the Tonga Submarine Ridge in the South Pacific. They are described herein as *Canthigaster flavoreticulata*.

The methods of counts and measurements follow those of Tyler (1967). The counts and proportions of the paratype are shown in parentheses when different from the holotype. The type specimens are deposited at the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo (NSMT-P).

### *Canthigaster flavoreticulata* sp. nov.

(Fig. 1)

**Holotype.** NSMT-P 41757, 88.6 mm in standard length (SL), 98–111 m depth, Tonga Submarine Ridge (22°53.1'S, 175°49.4'W), R/V *Kaiyo-maru*, 13 January 1977. **Paratype.** NSMT-P 41758, 66.8 mm SL, collected with holotype.

**Diagnosis.** A species of *Canthigaster* with the following combination of characters: dorsal rays 10; anal rays 10; pectoral rays 15 or 16; head and body dark brown dorsally with many wavy yellow lines, creamy white ventrally with many blue spots and lines; caudal fin yellow with vertical dark brown lines posteriorly and dark brown edged blue spots anteriorly.

**Description.** Dorsal rays 10; anal rays 10; pectoral rays 16 (15 in the left, 16 in the right).

Body depth 3.2 (3.0), body width at pectoral fin base 4.2, head length 2.6, distance from snout to dorsal origin 1.4 (1.3), distance from snout to anal origin 1.3 (1.2)—all in SL.

Snout length 1.6, eye diameter 3.7 (4.3), interorbital width 3.6, depth of caudal peduncle 2.7 (2.6), length of caudal peduncle 1.8 (1.7), length of dorsal fin base 5.7 (5.6), length of anal fin base 5.7 (5.9), length of longest dorsal ray 2.6, length of longest anal ray 2.8 (2.9), length of longest pectoral ray 2.6 (2.9), length of caudal fin 1.3 (1.4)—all in head length.

Body moderately compressed, covered with scattered prickles. Snout long and conical. A raised skin fold on back extending from above posterior edge of eye to dorsal origin. A single nostril on each side of snout, surrounded with an elevated rim. Interorbital space flattened. Caudal peduncle greatly compressed, slightly tapering toward caudal fin base. Dorsal and anal fins slightly rounded. Pectoral fin broad and short. Caudal fin slightly rounded.

Color in defrosted specimens: head and body dark brown dorsally with many wavy yellow lines, creamy white ventrally with many blue spots and lines; mid-side of body from gill opening to below dorsal origin surrounded by a yellow line, forming an elongated horseshoe shaped area; 12 yellow lines radiating from eye; caudal fin yellow with two vertical dark brown lines posteriorly and with dark brown edged blue spots anteriorly; dorsal and anal fins hyaline with yellow spots arranged in transverse rows; pectoral fins hyaline.

Color in alcohol: head and body dark brown dorsally with many wavy pale lines, pale ventrally with many dark brown spots; mid-side of body



Fig. 1. *Canthigaster flavoreticulata* sp. nov., holotype, 88.6 mm SL, Tonga Submarine Ridge, South Pacific (photo provided by H. Hatanaka).

surrounded with a pale line, forming an elongated horseshoe shaped area; 12 pale lines radiating from eye; caudal fin pale with two vertical dark brown lines posteriorly and with dark brown spots anteriorly; other fins pale.

**Remarks.** Most sharpnose pufferfishes are found around coral or rocky reefs in shallow waters, although four species, *C. epilampra*, *C. rivulata*, *C. inframacula*, and *C. investigatoris*, are known to penetrate depths in excess of 60 m (Allen and Randall, 1977; Matsuura, 1985). The latter three species were taken by a trawl and dredge at depths from 100 to 230 m. *Canthigaster flavoreticulata* is a third sharpnose pufferfish obtained from depths in excess of 100 m.

*Canthigaster flavoreticulata* is similar in appearance and probably related to *C. callisterna* from the northern Tasman Sea and Kermadec Islands and *C. rivulata*, a widely distributed Indo-Pacific species. The former species differs by having a broad, white mid-lateral stripe with dark brown margins, and by having 11 dorsal rays and 17 or 18 pectoral rays. *Canthigaster rivulata* is more similar in color, having a horseshoe shaped brownish band on the side which is spotted with orange. However, it lacks the distinctive caudal fin markings of *C. flavoreticulata* and pectoral ray count is usually 17 (range of 16 to 18).

The species name *flavoreticulata* refers to the reticulated yellow lines on the body.

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#### トンガ海嶺から採集されたキタマクラ属魚類の1新種 松浦啓一

南太平洋のトンガ海嶺の水深 98-111 m から2個体のキタマクラ属魚類がトロール網によって採集された。本種は背鰭に 10 軟条、胸鰭に 15-16 軟条を有し、体の背方を黄色線が網目状に走る等の形質により、同属の 24 種から識別されたので新種 *Canthigaster flavoreticulata* として記載した。

本種は北タスマン海とケルマデック諸島から報告されている *C. callisterna* とインド・太平洋に広く分布するキタマクラに似る。しかし、前者は体側に暗色縁のある白色縦帯を有し、胸鰭に 17-18 軟条あり、後者は体に黄色線が網目状に走らず、尾鰭の模様も異なり、胸鰭に通常 17 軟条あるので区別される。

(160 東京都新宿区百人町 3-23-1 国立科学博物館)