Record of a Labrid Fish, *Xyrichtys* pentadactylus, from the Ogasawara Islands, Japan

Hajime Ishihara and Akira Zama (Received June 10, 1978)

Three specimens of a labrid fish, *Xyrichtys pentadactylus* (Linnaeus), were collected in our recent investigation of the shore fishes of the Ogasawara (Bonin) Islands. In view of the scanty information on the species from Japanese waters, a full description is made of the above material. The presence of one or two black spots between the 3rd and 5th dorsal spines has not been mentioned in former studies, so far as we are aware.

Xyrichtys pentadactylus (Linnaeus)
Japanese name: Hirabera
(Fig. 1)

Material. MTUF (Museum, Tokyo University of Fisheries) 23539, a male, 163.0 mm SL, MTUF 23540 and 23541, two females, 155.0 and 158.0 mm SL, all collected by hook and line at the north coast of Iwo-jima (24°48′N, 141°18′E), Ogasawara Is., at a depth of 25 m, on March 20, 1977, by the senior author.

Description. D. IX, 12; A. III, 12; P_1 . 12 (upper 2 unbranched); branched caudal rays 5+5. Lateral line in two series; upper lateral line scales $20 \sim 21$; lower lateral line scales $4 \sim 5$; scales in lateral series $24 \sim 25$; scales above lateral line to 3rd dorsal spine 3, below lateral line to anal origin 10. Gill rakers $7 \sim 8 + 12 \sim 14 =$

 $19 \sim 22$. Vertebrae 8+16 (counts were made on radiographs, urostylar vertebra counted as one).

Measurements expressed in hundredths of standard length (155.0 \sim 163.0 mm): Body depth 34.2 \sim 35.7; head length 29.4 \sim 32.9; snout length 15.3 \sim 17.1; eye diameter 4.6 \sim 5.1; upper jaw length 9.8 \sim 10.3; interorbital width 7.0 \sim 7.2; caudal peduncle depth 12.9 \sim 13.0; pectoral length 19.4 \sim 22.7; pelvic length 16.2 \sim 18.4; dorsal base length 73.7 \sim 77.0; anal base length 35.4 \sim 39.0; 2nd dorsal spine length 13.6 \sim 14.1; 3rd anal spine length 7.4 \sim 8.6.

Scales cycloid; cheek with about 7 rows of scales, extending from below eye to behind corner of mouth; upper part of opercle scaly. Dorsal fin originating a little behind above center of eye; a deep notch on membrane between 2nd and 3rd dorsal spines. Outermost pelvic ray prolonged, but not reaching to anus. Caudal fin somewhat round. Jaws with a band of conical teeth, outer row larger; anterior part of each jaw with a pair of strong canines. Gill rakers short.

Color in life: Body greenish dark brown with a large dark blotch between lateral line and distal tip of pectoral fin, followed below by a light green area; cheek and gill-cover orange; a pair of blue lines along anterior margin from tip of snout to interorbital region. A round red (yellow in formalin) spot behind eye; a row of 5 oval red (yellow) spots along 1st to 5th scales of lateral line. Each lateral line scale and some of scales on posterior half of body with a orange basal spot. Dorsal fin reddish orange with dark irregular oblique bars (almost uniformly dark orange

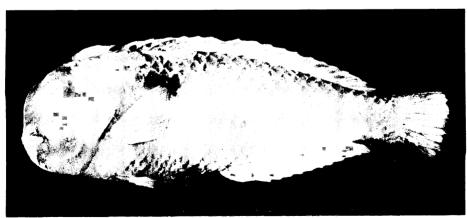


Fig. 1. Xyrichtys pentadactylus, MTUF 23539, male, 163.0 mm SL., from Iwo-jima, Ogasawara Islands.

in MTUF 23539); a black spot (two spots in MTUF 23539) bordered by orange between 3rd and 5th dorsal spines. Anal fin orange with 2 dark blue longitudinal lines. Pectoral fin light blue. Pelvic fin transparent. Caudal fin dark brown (with 3 vertical bars in MTUF 23540).

Notes. The generic classification of *Xyrichtys* pentadactylus follows Bauchot and Quignard (1973), who pointed out the invalidity of the genus *Hemipteronotus* Lacepède, although Randall (1965) united the related 5 genera, *Xyrichtys*, *Novacula*, *Novaculichthys*, *Iniistius*, and *Novaculops*, under *Hemipteronotus*.

The original description of X. pentadactylus by Linnaeus (1758) is brief without figures. However, descriptions of this species by Valenciennes (1839), Bleeker (1862), Günther (1862), Day (1878 ~ 1888), Fowler and Bean (1922), Barnard (1927), de Beaufort (1940), Munro (1967), and Yu (1968) are all in almost complete agreement, and show the presence of a round red (in life) spot behind the eye and 3 to 5 oval red ones along the anteriormost portion of the lateral line. The present specimens agree well with this information. In addition to these red spots, our Ogasawara specimens have 1 or 2 black spots between the 3rd and 5th dorsal spines. These black spots are not mentioned by the authors mentioned above, nor in other information referring to this species. It is uncertain whether the presence of the black spots on the dorsal fin represents an individual or geographical variation.

Xyrichtys pentadactylus has been known widely from the Indo-Pacific, i.e. east from the Society Islands (Randall, 1973), west from South Africa (Barnard, 1927), and north from Taiwan (Yu, 1968). Fowler (1928) and Fowler and Bean (1928) reported X. pentadactylus from Hawaii, synonymizing X. umbrilatus (Jenkins, 1901) from Hawaii with X. pentadactylus. Xyrichtys umbrilatus differs from X. pentadactylus by the larger dark blotch on the side of the body and the absence of a red spot at the temporal and scapular regions (Schultz, 1960). Gosline and Brock (1960) did not include X. pentadactylus in the Hawaiian fish fauna. Therefore, the occurence of X. pentadactylus in Hawaii is questionable.

The only record of X. pentadactylus in Japanese waters is that from Okinawa by Okada

(1959), who gave a list of animals inhabiting Okinawa. Matsubara (1955) and Masuda et al. (1975) did not indicate its occurrence in Japanese waters. The Japanese name Hirabera was given by Okada (1938; range: Indo-Pacific north to Taiwan).

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小笠原諸島より得られたヒラベラの記録

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小笠原諸島 で採集されたベラ科のヒラベラを記載した。ヒラベラは台湾以南のインド・太平洋海域に広く知られているが、本邦からは岡田(1959)により沖繩産動物目録に収録されているにすぎず、記載および図は与えられていなかった。本研究に使用したヒラベラ3個体には、背鰭第 $3\sim5$ 棘間に従来の記載にない黒色の斑点が $1\sim2$ 個観察された。

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