

## First Record of the Labrid Fish *Bodianus cylindriatus* (Tanaka) from the Hawaiian Islands<sup>1</sup>

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**ABSTRACT:** The labrid fish *Bodianus cylindriatus* (Tanaka), previously known only from Japan, is recorded from the Kanmu Seamount of the Northwestern Hawaiian Islands from a single specimen 145 mm SL which has been deposited in the Bernice P. Bishop Museum under BPBM 30346. The fish was taken by trawling at a depth of 340–510 m.

Tanaka (1930:941, pl. 187, fig. 513) described the labrid fish *Verreo cylindriatus* from a single specimen 232 mm in total length collected at the Tokyo market, and hence, presumably from Japanese waters. Gomon (1979) referred the species to the genus *Bodianus* primarily on the basis of the number of dorsal and anal fin rays and of lateral-line scales.

Yamamoto (in Okamura, Amaoka, and Mitani 1982:245, pl. 170) described a closely related species, *Bodianus thoracotaeniatus*, from the Kyushu-Palau Ridge in the Philippine Sea. In making a comparison with *B. cylindriatus*, he cited four specimens of the latter in the collection of the Hokkaido University Museum of Zoology which were taken off the Pacific coast of southern Japan at a depth of 240 m.

Yamakawa (in Masuda et al. 1984:202, pl. 195B) illustrated *Bodianus cylindriatus* in color and recorded counts from five specimens 110–140 mm SL collected from Tosa Bay, Japan. We reproduce his illustration in black and white here as Figure 1.

Chen (1980) reported on 38 species of fishes obtained during a trawling survey of Kanmu Seamount (30°N, 173°E) by the R/V *Hai-Kung* in the Northwestern Hawaiian Islands at depths of 340–510 m in May 1980. Among the fishes collected were seven specimens

identified as *Coris ballieui* Vaillant and Sauvage. One of these specimens, the only one of the seven that was retained, was illustrated by Chen in color (1980:pl. 7, fig. 38). This figure is reproduced here in black and white (Figure 2).

At the request of the senior author, this fish, which measures 145 mm SL, was sent to the Bernice P. Bishop Museum, where it has been deposited under BPBM 30346. We now identify it as *Bodianus cylindriatus* (Tanaka), the first record of the species from the Hawaiian Islands. The description below is based on this specimen.

**DESCRIPTION:** Dorsal rays XII,10; anal rays III,11; pectoral rays 16 (the uppermost rudimentary, the second unbranched); pelvic rays I,5; principal caudal rays 14, the upper and lower unbranched; upper procurrent caudal rays 8; lower procurrent rays 7; lateral-line scales 31 (to base of caudal fin); scales above lateral line to origin of dorsal fin 3; scales below lateral line to origin of anal fin 8½; gill rakers 8 + 9 (including rudiments); branchiostegal rays 6; vertebrae 11 + 17.

Body slender, the depth at origin of pelvic fins 4.5 in SL, and only moderately compressed, the width behind gill opening 1.6 in depth; head 2.95 in SL; snout 3.25 in head; eye large, the orbit diameter 3.9 in head; interorbital space broad and flat, the least fleshy width 3.8 in head; least depth of caudal peduncle 2.55 in head.

Mouth terminal, slightly oblique, the maxilla nearly reaching a vertical at anterior edge of orbit; two pairs of prominent incurved

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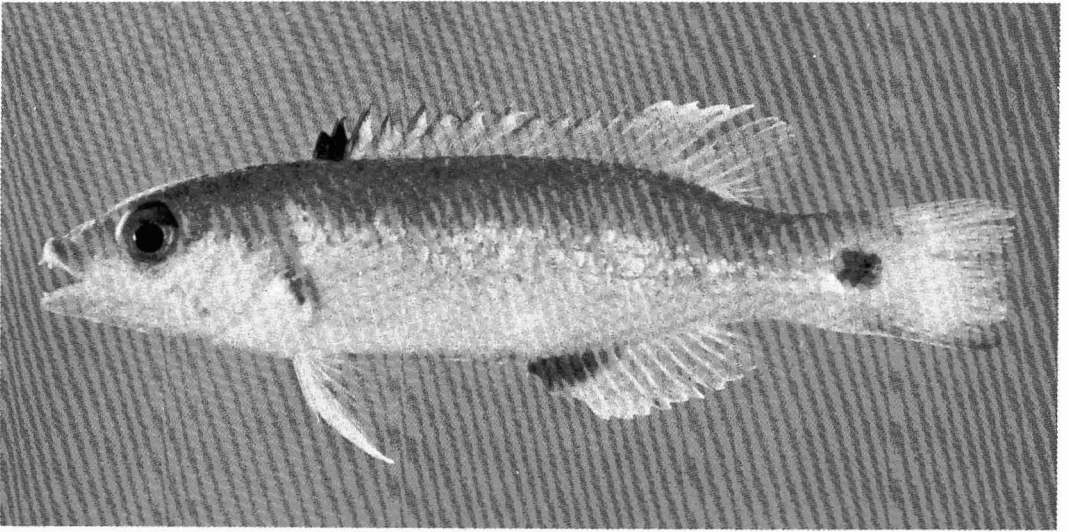


FIGURE 1. *Bodianus cylindriatus*, 140 mm, Tosa Bay, Japan (photograph by T. Yamakawa).

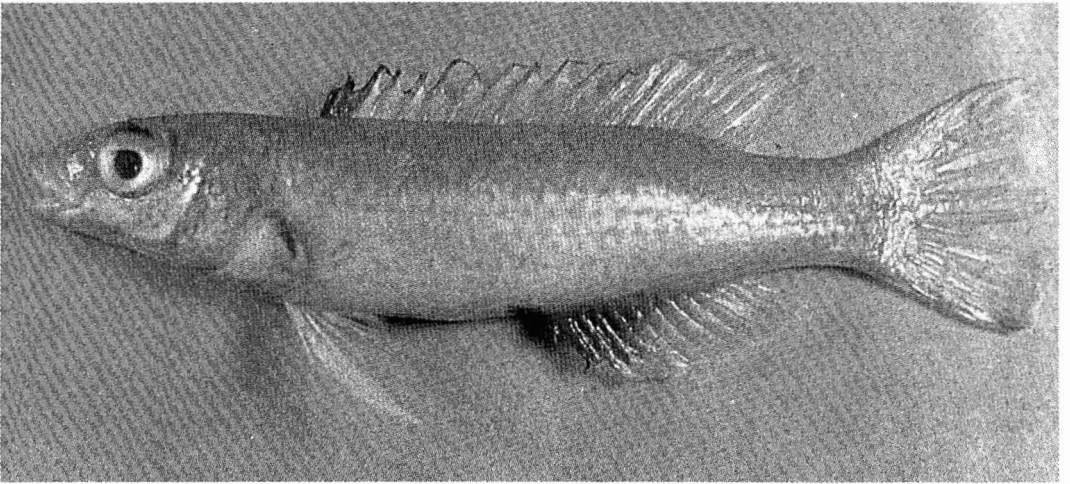


FIGURE 2. *Bodianus cylindriatus*, BPBM 30346, 145 mm SL (after Chen 1980: pl. 7, fig. 38).

canine teeth anteriorly in each jaw, followed by a broadly crenulate bony ridge; side of jaws with an outer row of about ten stout conical teeth and an inner one or two irregular rows of small nodular teeth; posterior end of upper jaw with a canine (about half the length of anterior canines); two stout canine teeth on vomer.

Lateral line continuous, angling downward below soft portion of dorsal fin to straight peduncular part, the tubes of lateral-line

scales simple. Scales cycloid, those on body large, in contrast to the scales of the head, nape, and thorax which are small; head nearly fully scaled, those dorsally extending forward to level of anterior nostrils; chin and side of snout naked, the snout papillose; fins naked except basal third of caudal fin. Posterior margin of preopercle finely and irregularly serrate.

Dorsal spines progressively longer, the last 3.3 in head; membranes between dorsal spines deeply incised with a prominent filament ex-

tending well above tip of each spine; sixth and seventh dorsal soft rays longest, 2.15 in head; first anal spine contained about 1.5 times in second spine; third anal spine slightly longer than second, 3.75 in head; eighth anal soft ray longest, 2.8 in head; caudal fin truncate, 4.6 in head; pectoral fins rounded, the middle rays longest, 5.7 in SL; second pelvic soft ray longest, reaching anus, 4.0 in head; pelvic spine 2.15 in length of longest pelvic ray.

Color in preservative entirely pale. Color from color plate (Chen 1980): light red suffused with yellow dorsally, becoming silvery lavender-pink on sides and ventrally; a yellow blotch anterior to and another ventral to eye; a vertical narrow red streak behind eye; first three spines and associated membranes of dorsal fin bright red; rest of fin pale lavender-pink, shading distally to light yellow, the spines, and to a lesser extent the rays, red distally; a large red area anteriorly on anal fin (extending to base of sixth soft ray); rest of fin pale lavender-pink with a trace of yellow on rays; caudal fin with pale-pink rays and clear membranes except upper and lower edges which are broadly light red with a wash of yellow; pectoral fins pale with a narrow bright-red bar at base; pelvic fins pale lavender-pink except the second to fourth rays which are partly yellow (the third rays almost entirely so).

REMARKS: As noted by Yamamoto (in Okamura, Amaoka, and Mitani 1982), *Bodianus cylindriatus* is most closely related to *B. thora-cotaeniatus*. The latter differs by having 11 dorsal soft rays (*cylindriatus* has 10), a mid-lateral orange-red stripe, and a prominent black stripe submarginally on the dorsal fin.

Gomon (personal communication) has noted the great similarity among the slender, deep-water, primitive labrids *Polylepidon russelli* (Gomon and Randall), *Decodon pacificus* (Kamohara), and *Bodianus* spp., for which meristic data have been the principal basis for generic separation. He has, however, found osteological evidence to maintain *Polylepidon* and *Decodon* as distinct from *Bodianus* (Gomon 1979).

With the addition of *Bodianus cylindriatus* to the Hawaiian fish fauna, the total number of wrasses is raised to 42, making the Labridae the most speciose family of fishes in the Hawaiian Islands.

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