

## A Record of the Labrid Fish *Pseudocheilinus evanidus* from Japan

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In 1857 Bleeker described *Cheilinus hexataenia* on the basis of a single specimen from Amboina, and in 1861 proposed the genus *Pseudocheilinus* for it. The second and third species of the genus were added from the Hawaiian Islands: *P. octotaenia* by Jenkins (1901) and *P. evanidus* by Jordan and Evermann (1903). Smith (1955) described *P. margaretae* from the Indian Ocean, a species which seems closely related to *P. octotaenia* and is possibly identical to it. Schultz (1960) proposed the most recently described species of the genus, *P. tetrataenia*. Only one species of *Pseudocheilinus*, *P. hexataenia*, is recorded from Japanese waters (Fowler, 1946).

During the winter of 1975~1976, the authors had the opportunity to collect fishes at Kuroshima (24°25'N, 124°10'E) in the Yaeyama Group, Ryukyu Islands. Among the labrids observed but not collected were a number of small fishes tentatively identified as *Pseudocheilinus evanidus*. The species was sighted during a subsequent trip to Okinawa Island, where once again attempts to collect specimens failed. In June of 1976, Okamoto succeeded in obtaining two specimens from Kuroshima, and several days later an additional specimen was taken at Miyakejima (34°05'N, 139°30'E), one of the Izu Islands.

After examining these specimens, we were able to confirm our earlier identification of the species, which is described below.

We follow Springer and Randall (1974) in counting the last two, closely allied rays of the dorsal and anal fins separately. Gill rakers, including rudiments, were counted on the first gill arch. Lengths expressed are standard length (SL). Specimens are deposited at the Tatsuo Tanaka Memorial Biological Station (TMBS) and the University Museum, Department of Zoology, University of Tokyo (ZUMT).

### *Pseudocheilinus evanidus*

(New Japanese name: Hime-nisemochinouo)

*Pseudocheilinus evanidus* Jordan and Evermann,

1903: 192 (type locality: near Hilo, Hawaii); Regan, 1908: 231 (listed from the Amirante Isles, Seychelles); Smith, 1957: 108 (Pemba, Aldabra); Schultz, in Schultz and collaborators, 1960: 165 (in key); Randall, 1973: 197 (listed from the Society Islands).

*Pseudocheilinus hexataenia* (non Bleeker) Fowler and Bean, 1928: 342 (in part, specimen from Mabul Island, Philippines).

**Material:** TMBS 760728, male, 58.8 mm, Miyakejima, Izu Islands; ZUMT 54051, female, 55.0 mm, Kuroshima, Ryuku Islands; TMBS 760719, female, 48.0 mm, same data as preceding.

**Description:** Dorsal fin rays IX, 12 (2 specimens) or IX, 13 (1); anal fin rays III, 10 (2) or III, 11 (1); pectoral fin rays ii, 12 (one with ii, 13 on left side); branched caudal fin rays 6+5 (2) or 6+6 (1); pored lateral-line scales 15~16+5~6=20~22 (plus one beyond hypurals); gill rakers 11 (1) or 13 (2).

Greatest body depth 2.60 to 2.77 in SL (ripe females 2.60 to 2.70); greatest body width 2.23 to 2.25 in depth; head length 2.7 to 2.9 in SL (head relatively shorter in larger individuals); snout length 2.9 to 3.4 in head; eye diameter 4.46 to 4.86 in head (eye relatively smaller in larger individuals); interorbital space slightly convex, 4.0 to 4.7 in head; predorsal length 2.50 to 2.64 in SL; distance from tip of snout to anal fin origin 1.5 to 1.6 in SL; dorsal fin base length 1.81 to 1.83 in SL; first dorsal spine 6.2 to 8.5, ninth 3.0 to 3.6 in head; anal fin base length 3.8 to 4.3 in SL; first anal spine 4.6 to 6.4, second 3.0 to 3.9, third 3.2 to 3.4 in head; pectoral fin length 1.63 to 1.73 in head; pelvic fin length 2.0 to 2.3 in head (pelvic fin relatively longer in larger individuals); pelvic fin spine 3.3 to 3.8 in head; caudal fin length 1.3 to 1.5 in head; least depth of caudal peduncle 1.9 to 2.3 in head.

Snout and interorbital naked; cheek scale rows 2; midline predorsal scales 5 (predorsal scales beginning just posterior to a vertical at hind margin of eye); lateral line interrupted, 2 scales above it to dorsal fin origin, 7 scales below it to anal fin origin; dorsal and anal fins with a basal row of vertically elongate scales; base of caudal fin covered by several

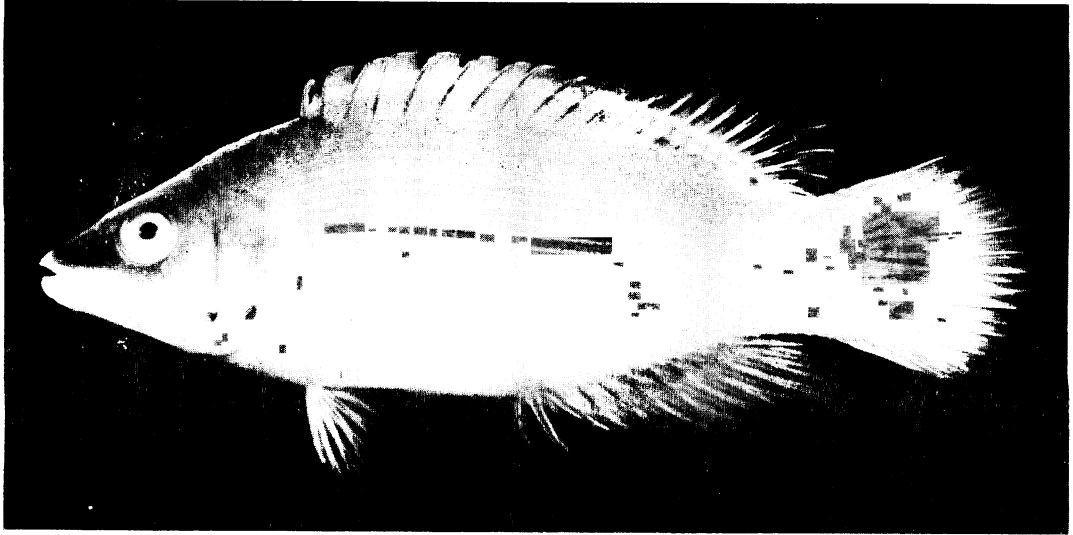


Fig. 1. *Pseudocheilinus evanidus*, TMBS 760728, male, 58.8 mm in standard length, Miyakejima, Izu Islands.

enlarged scales; scales on breast and abdomen slightly smaller than those on body side.

Six enlarged premaxillary teeth, the posterior-most on each side largest and conspicuously curved; two enlarged dentary teeth; no enlarged canine at corner of mouth.

Color of 58.8 mm male (Fig. 1) in life: Orangish red generally, with about 22 thin, yellowish lines from behind head onto posterior part of body. Snout and upper part of head dusky brown. Tip of snout and iris of eye scarlet. Head shading to yellowish below level of eye, a distinct but poorly defined whitish streak from corner of mouth toward angle of preopercle. Hind edge of preopercle and oblong blotch on opercle purplish. Dorsal fin orangish red basally, a red-edged purplish band arching from origin to posterior base, above this a yellowish zone; spinous portion of fin tipped with deep red; soft portion infused with purplish, edged behind with reddish. Anal fin similar to soft dorsal, but with red-edged yellowish streaks running outward on interradial membranes. Pelvic fins faintly pinkish, pectoral fins pale.

Females are similar to males in color pattern, but are generally less intensely hued.

In preservative the colors fade. The body is pale, with faint, evenly spaced, dusky bands running from behind the head onto the caudal

peduncle (these bands, about equal to pupil in width, are not evident in freshly preserved specimens). The snout and upper part of the head are dusky. The rays of the median fins are stained purplish, and the purplish markings on the preopercle and opercle persist. The basal row of scales on the dorsal and anal fins may retain a purplish cast.

**Remarks:** Fowler and Bean (1928) considered *P. evanidus* and *P. octotaenia* to be color variants of *P. hexataenia*. As pointed out by Schultz (1960), however, this assumption is untenable. Though the species may be difficult to separate on the basis of morphological characters, we have examined specimens of each form and find no interspecific overlap in color pattern. The members of these species show little difference in coloration with respect to sex. Females tend to be less brightly colored and usually have somewhat shorter filaments on the first two anal fin spines.

At Kuroshima we observed *P. evanidus* along the outer reef edge in depths of about 10 to 40 m. Usually solitary, it was occasionally seen in groups of two or three individuals. At the approach of a diver, *P. evanidus* characteristically seeks concealment in the interstices of rock or coral rubble. The species is relatively common at Miyakejima, where individuals or small groups are found along

eroded lava flows and rock reefs in depths greater than 15 m. Frequent sightings of individuals with remarkably distended abdomens, presumably females, suggest that the species is reproductively active at that locality during the summer months (June~August).

It is of interest to note that although the holotype of *P. evanidus* was found in "a deep tide-pool in lava rocks" (Jordan and Evermann, 1903), Snyder (1904) reported Hawaiian specimens taken by the U.S. Fish Commission's steamer "Albatross" from depths ranging between 50 and 140 m.

The rarity of *P. evanidus* in the literature is probably due to its small size and apparent predilection for depths somewhat greater than those frequented by many of the Labridae. The species seems to be widely distributed in the Indo-West Pacific.

Springer and Randall (1974) included *Pseudocheilinus* in a group of labrids informally designated by them as the "cirrhillabroid" genera. The chief character uniting these genera is the oblique division of the scleral cornea of the eye into two portions. This modification, which is easily detected in preserved specimens, serves as perhaps the most consistent and obvious external difference between *Pseudocheilinus* and *Cheilinus* Lacepède. Members of the latter genus have normally rounded, undivided corneae.

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Dr. Hitoshi Ida (Kitasato University) kindly provided literature, reviewed the manuscript, and made valuable suggestions. Katherine A. Meyer and Jack T. Moyer (Tatsuo Tanaka Memorial Biological Station) collected the specimen of *P. evanidus* from Miyakejima. The senior author's research on labrid fishes in the Ryukyu Islands was partially supported by a grant from the Explorers Club, Beverly, Massachusetts.

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- 日本から初記録の *Pseudocheilinus evanidus*  
ヒメニセモチノウオ (新称)

John W. Shepard • 岡本一志

1976年6月に八重山諸島黒島から2個体, 同年7月に伊豆諸島三宅島から1個体, 本邦から初記録の *Pesudocheilinus evanidus* が得られた。その和名としてヒメニセモチノウオを提唱する。本種は体長50~60mmほどの小型種で, 水深約10~40mまでの岩礁地に生息する。1976年7月28日に三宅島において得られた個体 (S. L. 58.8 mm, male) の生時の色彩は全体が橙赤色で, 頭部後方より体側後半にかけて縦走する22本の黄色線, および口角から前鰓蓋骨の隅角部まで縦走する白色帯などの斑

紋が特徴的である。また, 色彩の雌雄差はほとんど認められない。

標本検定の結果, 本種は Fowler and Bean (1928) の述べてところの *P. hexataenia* の color variant ではなく, 別種であることが明らかになった。

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