On Kuroshio

Record of a juvenile of *Evoxymetopon taeniatum* (Trichiuridae) from Shikoku

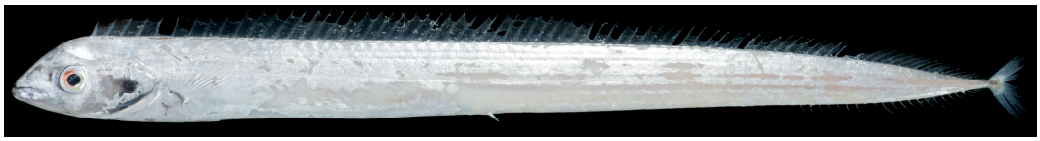

Figure 1. Fresh specimen of *Evoxymetopon taeniatus* collected from off Okino-shima Island, Kochi Prefecture, Japan (KBF-I 1087, 279.8 mm standard length).

The genus *Evoxymetopon* Bloch & Schneider, 1801 belongs to the family Trichiuridae and comprises four valid species, and three of them, *Evoxymetopon macrophthalmum* Chakraborty, Yoshino & Iwatsuki, 2006 "Hirenaga-omeyumetachi", *Evoxymetopon poeyi* Günther, 1887 "Hirenaga-yumetachi", and *Evoxymetopon taeniatus* Gill, 1863 "Yumetachi-modoki", have been known from the Japanese waters (Nakabo and Doiuchi 2013). Under the frame work of an ichthyofaunal fish survey in the southwestern Shikoku, a single juvenile specimen of *E. taeniatus*, captured by set net at off Okino-shima Island, Kochi Prefecture, was obtained by the second author at a fish-landing ground of Tanoura Fishing Port on 18 May 2020. The specimen was observed in detail and, counted and measured by following Sakiyama et al. (2011).

The characteristics of present specimen [KBF-I 1087, 279.8 mm standard length (SL): Figs. 1, 2] is well consistent with the diagnosis of *E. taeniatus* given by Nakamura and Parin (1993), Nakabo and Doiuchi (2013), and Koeda and Ho (2017): dorsal-fin rays 81, first ray not elongated; pectoral fin rays 11, fin triangular in shape; pelvic fin ray 1, scale-like; caudal fin present; body depth 8.5% SL at pectoral-fin base; eye located at middle of body axis; a crescent nostril present in front of eye (Fig. 2; Table 1). This species is known from the central Atlantic Ocean and northwestern Pacific Ocean off Japan, Korea, Taiwan, and the Philippines (Nakamura and Parin 1993, Koeda and Ho 2017). In Japanese waters, the species was previously known from Omi (Niigata Prefecture), Tateyama (Chiba Prefecture), Kawana (Shizuoka Prefecture), Shirahama (Wakayama Prefecture), Kagoshima Bay (Kagoshima Prefecture), and East China Sea (e.g., Nakabo and Doiuchi 2013, Hata et al. 2015). Therefore, the present specimen represents the first record of this species from Shikoku area.

Figure 2. Close up photographs of *Evoxymetopon taeniatus* (KBF-I 1087). Top: head; middle: mid-lateral, black arrow showing pelvic fin; bottom: caudal.

Juvenile record of *Evoxymetopon taeniatus* from Shikoku. Keita Koeda and Yoichiro Yamada. *Kuroshio Biosphere*, 17 (1): 35–36. Submitted 27 May 2020 / Accepted 2 June 2020

The size of captured individuals of *E. taeniatus* is commonly ranged from 130 to 180 cm SL in Pacific and Atlantic oceans (Nakamura and Parin 1993), and 80 to 150 cm SL in the East China Sea (Yamada et al. 2007), and juvenile has never been reported by previous studies. Koeda et al. (2018) compared the morphologies of several sizes of *Assurger anzac* (Alexander, 1917) "Nagayume-tachimodoki" which belongs to the family Trichiuridae with sharing large body size and presence of caudal fin with the genus *Evoxymetopon*, and suggested the body depth of this species grows higher with their body growth. Although the comparison between the present specimen and adult specimens (1315 and 1483 mm SL) of *E. taeniatus* shown by Koeda and Ho (2017), and subadult specimens (691 and 705 mm SL) shown by Hata et al. (2015) had no significant difference in their body depth, the dorsal outline of head more gently rise up and origin of dorsal fin located more posterior in juvenile specimen than the adults and subadults. These differences probably due to the ontogenetic growth of the species.

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Table 1. Counts and measurements of *Evoxymetopon taeniatus* (KBF-I 1087) from Shikoku.

Standard length (SL; mm)	279.8
Total length	289.6
Fork length	281.4
Counts	
Dorsal-fin elements	81
Pectoral-fin rays	13
Pelvic-fin rays	1
External anal-fin rays	23
Caudal-fin rays	8+7
Gill rakers	3+11
Measurements (% of SL)	
Pre-anus length	45.7
Head length	14.8
Snout length	4.9
Postorbital length	7.3
Preopercle length	2.7
Upper-jaw length	5.0
Body depth at pectoral-fin base	8.5
Body width at pectoral-fin base	2.5
Body depth at anus	7.4
Body width at anus	1.8
First dorsal-fin spine length	1.8
Pre-dorsal-fin length	9.4
Dorsal-fin base length	89.9
Orbit diameter	2.7
Suborbital width	1.2
Interorbital width	2.4
Depth above lateral line at anus	3.8
Depth below lateral line at anus	3.5
Pre-pectoral-fin length	16.1
Pectoral-fin base length	1.7
Pectoral fin length	8.2
Pre-pelvic-fin length	47.9
Pelvic-fin length	1.6
Pre-anal-fin length	79.6
Anal-fin base length	18.1
Caudal-peduncle depth	0.6
Caudal-peduncle length	1.5
Tail length	3.6