New Record of the Dragonet Repomucenus ornatipinnis (Callionymidae) from Korea

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The callionymid fish *Repomucenus ornatipinnis* is widely distributed in the coasts of the Japanese Archipelago and adjacent waters (Nakabo, 1983), but it has not been recorded from the coasts of Korea. We collected *R. ornatipinnis* from the western coasts of the Korean Peninsula by fixed shore nets for shrimps which were set at sandymuddy bottoms shallower than 10–30 m deep. Since this is new to Korea, we describe here our specimens and compare them with specimens from Sendai Bay, Tohoku district, Japan.

Classification of the Callionymidae and measuring methods follow Nakabo (1982).

Reponucenus ornatipinnis (Regan)

(New Korean name: Kkot-Tot-Yangtae) (Japanese name: Seto-numeri) (Figs. 1, 2)

Callionymus ornatipinnis Regan, 1905: 23, pl. 4 (type locality: Seto Inland Sea, Japan).

Repomucenus ornatipinnis: Nakabo, 1982: 81 (listed).

Material examined. SMWU (Sang Myung Women's University) 3017, FAKU (Department of Fisheries, Faculty of Agriculture, Kyoto University) 53916, a male and a female, 45.8-49.3 mm SL, May 12, 1984. FAKU 53913, a male, 68.8 mm SL, May 30, 1984. SMWU 3031-3040, FAKU 54687-54693, 13 males and 4 females, 45.7-108.6 mm SL, May 6, 1985. All the above specimens were from 126°47'E, 37°17'N, Sa-ri, Panwol-myŏn, Shihung-gun, Kyŏng'gi-do, Korea. SMWU 3041-3045, FAKU 54694-54699, 8 males and 3 females, 49.5-79.4 mm SL, May 30, 1985. SMWU 3046-3051, FAKU 54700-54704, 5 males and 6 females, 46.3-78.2 mm SL, May 27, 1985. All the above specimens were from 126°00′-126°30′E, 37°00′-37°15′N, Pangsan-ri, Sorae-ŭp, Shihung-gun, Kyong'gido, Korea.

Description. D IV-9; A 9 (rarely 10); P_1 i+17-20; P_2 I, 5; C i+7+ii (one specimen, 7+ii, may be due to abnormality).

Proportional measurements are shown in Table 1.

Body elongate and depressed. Head depressed.

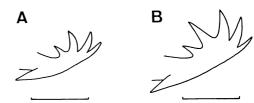


Fig. 1. Preopercular spine of R. ornatipinnis. A, smaller specimen, 55.7 mm SL, SMWU 3035;
B, larger specimen, 79.4 mm SL, FAKU 54699.
Scales indicate 2 mm.

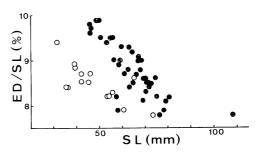


Fig. 2. Relationship between eye diameter/standard length and standard length in the two geographical populations. Solid circles: specimens from Korea; open circles: those from Sendai Bay, Japan.

Eye large. Interorbital space very narrow and somewhat concave. Preopercular spine short, with 3-4 processes curved upward on inner side and with an antrorse process at base; posterior tip slightly curved upward (Fig. 1). Cephalic lateral line system developed; infraorbital canal extending to anterior part of eye with a downward branch near ventroposterior part and a short antrorse branch at posterior edge.

Anterior 2 dorsal spines elongate and filamentous, increasing in length with growth in males, but not in females.

Color in 10% formalin. Body marbled brown above like the surface of a sandy bottom. Ventral surface of body behind origin of anal fin faint dark in adult males, white in females and young males. Many white oblong marks on lower part of lateral side of body in females and young males. First dorsal fin dark with some white spots in adult males; posterior half except the basal part black in females and young males. Second dorsal fin with a median row of dark marks in males, with many

Table 1. Proportional measurements as the percent of standard length in *Repomucenus ornati-* pinnis from Korea. Data show ranges; the means and sample sizes in parentheses.

No. fish	male	female
	28	14
Standard length (mm)	45.7–108.6	45.8–78.2
Body width	17.3- 22.5 (19.7, 28)	18.3–21.8 (19.7, 14)
Body depth	6.2- 9.7 (7.7, 28)	6.6- 9.7 (7.9, 14)
Caudal peduncle depth	3.5- 4.5 (4.0, 28)	3.5-4.6 (4.0, 14)
Predorsal length	30.1- 34.4 (32.2, 28)	30.2–33.8 (32.0, 14)
Caudal fin length	27.4- 33.2 (30.0, 26)	28.1-33.1 (29.8, 14)
Head length	23.8-29.6 (26.0, 28)	24.4–27.1 (25.8, 14)
Eye diameter	7.8- 9.9 (8.8, 28)	7.9- 9.8 (8.8, 14)
Snout length	8.9- 12.4 (10.0, 28)	8.6- 9.8 (9.2, 14)
Upper jaw length	8.6-10.3 (9.5, 28)	9.1–10.3 (9.5, 14)
Interorbital width	0.7- 1.8 (1.3, 28)	1.0-2.0 (1.3, 14)
1st dorsal spine length	8.9- 16.1 (12.7, 27)	9.7–11.7 (10.5, 14)
2nd dorsal spine length	10.1- 16.5 (12.1, 26)	9.0–11.0 (10.3, 14)
3rd dorsal spine length	7.8- 12.1 (9.2, 27)	7.1-9.2 (8.1, 14)
4th dorsal spine length	3.6- 8.8 (5.5, 28)	3.5- 5.1 (4.3, 14)
1st dorsal ray length	14.9–18.0 (16.0, 27)	15.4–17.2 (15.5, 13)
Last dorsal ray length	12.9- 23.0 (15.5, 28)	11.2–15.5 (13.4, 13)
1st anal ray length	7.0- 9.2 (7.7, 27)	5.8-8.5 (7.7, 13)
Last anal ray length	11.4- 13.4 (12.5, 25)	11.4–13.1 (12.3, 11)
Pectoral fin length	19.8- 24.7 (21.7, 26)	21.3–23.0 (22.3, 13)
Pelvic fin length	27.9- 31.6 (29.4, 27)	28.2–30.8 (29.9, 13)
Preopercular spine length	4.5- 6.1 (5.4, 28)	5.1-6.3 (5.7, 14)
Anal papilla length	2.0- 3.8 (3.0, 28)	0.4- 1.4 (0.9, 14)

cloud-like darker marks in females. Upper half of pectoral fin with many small dark spots, lower half transparent. Pelvic fin faint dark with some small white marks, a darker band near posterior margin in males, faint dark and posterior half with some small darker spots in females and young males. Anal fin pale and the posteriormost membrane dark; a dark longitudinal line near distal margin in young specimens of both sexes. Upper half of caudal fin with many dark spots, lower half dark brown.

Remarks. In the coasts of the Yellow Sea, Li (1955) reported *R. ornatipinnis* (mistakenly identified as *R. beniteguri*; about this, see Nakabo, 1983: 241) from Ch'ing-tao, Shantung, China. Therefore, this is the second record of this species from the Yellow Sea.

The population of this species from the coasts of Shihūng-gun, Kyŏng'gi-do, Korea has larger eye than that from Sendai Bay, Tohoku district, Japan (Fig. 2). The comparison between the two populations was done by examining small sized specimens, because we could collect only a

few large sized specimens from Korea. Comparisons of large sized specimens between the two are needed.

Comparative material examined. *R. ornatipinnis*: FAKU 53031, 53099, 8 males and 7 females, 31.8-73.5 mm SL, off Matsukawa-ura, Fukushima Pref., the Sendai Bay, Japan, 9-10 m deep, May 14 and 18, 1984.

Acknowledgments

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韓国初記録のセトヌメリ(ネズッポ科)

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韓国京畿道始奥郡の半月面四里と蘇来邑芳山里の 沿岸から,韓国初記録のネズッポ科ネズッポ属魚類の 1 種, Repomucenus ornatipinnis (Regan) (新韓国名: Kkot-Tot-Yangtae; 和名: セトヌメリ) を得たのでここに報告した.標本はいずれも水深 $10\sim30\,\mathrm{m}$ の所に設置された小エビ類採揃のための 小型定置網によって採集された.生息環境は砂泥底である.

体長約 40~60 mm の標本において,韓国産セトヌメリは日本の仙台湾産のものに比べて 明瞭に眼が大きいので,そのことも記した.

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