

New Record of the Gobiid fish *Mugilogobius abei* from Korea

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韓國産 망둑어科 魚類 1未記錄種, *Mugilogobius abei*

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적 요

1985년 5월부터 8월 사이에 忠南 保寧, 全北 扶安 및 全南 木浦의 沿岸에서 30마리의 *Mugilogobius abei*의 標本을 採集하였다. 本 種은 韓國에서는 처음으로 報告되는 망둑어科 魚類로 體長이 26.8~49.8 mm로 小形이고 尾柄部の 側面에 2個의 縱帶가 있고 縱列鱗數는 37~40個로 다른 種과도 잘 區別된다. 本 種의 韓國名은 “모치망둑”으로 命名한다.

Key words: Gobiidae, taxonomy, Korea

Gobiid fish, *Mugilogobius abei*, was originally described by Jordan and Snyder (1901) as *Ctenogobius abei* on the basis of two specimens obtained from Wakanoura, Wakanoura-Ken, Japan. This species was known to occur from Japan southward to southern part of China including Hainan island (Aoyagi 1957; Nakamura, 1975). Its presence in Korean waters was predictable. In the summer of 1985, thirty specimens of this species were collected by a minnow seine from the sandy and muddy bottoms along the west coast of Korean peninsula. This specimens of *M. abei* are recorded from Korea for the first time in this paper. The new materials are compared with the original description and additional morphological informations (Nakamura, 1975; Masuda *et al.*, 1984). Method for counts and measurements follow Hubbs and Lagler (1964). The present specimens are deposited at the laboratory of department of biology, Chonbuk National University (CUB).

***Mugilogobius abei* (Jordan et Snyder, 1901)**

(New Korean name: Mochi-mang-dug, 모치망둑(新稱)) [Fig. 1]

Ctenogobius abei: Jordan et Snyder, 1901, (p.55, fig. 5).

Tamanka bittata: Herre, 1972, (p. 224, pl.17, fig. 4).

Gobius abei: Tomiyama, 1936, (p. 74).

Mugilogobius abei: Matsubara, 1955, (p. 832); Nakamura, 1975, (p. 193).

Material examined: CUB 8032-8035, 4 specimens, 31.0-33.0mm in standard length(SL), Haso-myon, Puan-gun, Chollabuk-do, Jul. 2, 1985 and Sep. 8, 1985; CUB 8042-8061, 20 specimens, 27.0-41.0mm in SL, Koha Island, Mokpo-shi, Chollanam-do, Jul. 28, 1985; CUB 8036-8041, 6 specimens, 33.0-38.0mm in SL, Chupo-myon, Poryog-gun, Chungchongnam-do, Aug. 23, 1985.

Description:

Counts and measurements are shown in Table 1. Body short, thick, cylindrical anteriorly; caudal peduncle compressed. Head large; snout bluntly rounded. Eyes of moderate size directed laterally and interorbital space somewhat convex. Anterior nostril with a tube. No barbels on head. Occiput and upper part of opercula with scales, head otherwise naked; body covered everywhere with finely ctenoid scales, small anteriorly, appearing gradually larger posteriorly. Dorsals separate; the spines with long, projecting filaments, rays a little longer posteriorly. Caudal rounded, pectorals pointed, ventrals free posteriorly from belly. Sensory canal and pores absent, sensory

Table 1. Counts and proportional measurements of *Mugilogobius abei*.

| Characters | Present study | | | Type specimens (Jordan and Snyder, 1901) |
|---|-----------------|-----------------|-----------------|---|
| | Puan | Poryong | Mokpo | |
| Locality | | | | |
| No. of specimens | 4 | 6 | 20 | 2 |
| Standard length(mm) | 31.5-33.6(32.6) | 33.0-38.3(34.8) | 26.8-40.8(33.7) | 35-36 |
| Counts | | | | |
| Dorsal fin rays | VI-I,8 | VI-I,8 | VI-I,8 | VI-9 |
| Pectoral fin rays | 16-18(17) | 16-18(17) | 15-18(17) | 16 |
| Pelvic fin rays | I,5 | I,5 | I,5 | - |
| Anal fin rays | I,8 | I,8 | I,8 | 9 |
| Lateral scales | 38-39(38) | 39-40(39) | 37-40(39) | 36-41 |
| Transverse scales | 14 | 14-15(14) | 13-15(14) | 13-15 |
| Measurements expressed as % of standard length | | | | |
| Head length | 27.1-29.5(28.0) | 29.0-30.6(29.8) | 26.5-31.4(29.1) | 27-29 |
| Body depth | 19.0-21.8(20.6) | 18.6-20.7(19.8) | 18.1-23.0(20.1) | 19-20 |
| Caudal peduncle length | 24.4-25.8(25.0) | 21.8-24.0(23.2) | 21.8-27.4(23.8) | - |
| Length of predorsal | 36.4-39.7(37.6) | 36.2-40.6(38.4) | 36.0-40.6(38.3) | 38 |
| Length of prepectoral | 27.9-29.8(28.8) | 29.8-33.3(31.5) | 27.9-33.3(30.3) | - |
| Length of preventral | 28.3-31.0(29.3) | 31.3-34.8(32.8) | 28.3-34.8(31.3) | - |
| Length of preanal | 57.0-59.4(58.3) | 59.7-63.6(60.7) | 55.7-63.6(59.6) | 57-60 |
| Pectoral fin length | 19.9-22.1(21.0) | 20.0-22.1(20.9) | 19.2-23.5(21.4) | 22 |
| Pelvic fin length | 16.2-18.4(17.2) | 15.7-17.4(16.7) | 14.2-20.6(16.4) | 16 |
| Caudal fin length | 20.6-24.7(22.4) | 18.9-22.7(20.3) | 18.9-25.7(22.0) | 23-25 |
| Measurements expressed as % of head length | | | | |
| Snout length | 19.1-23.2(22.0) | 21.6-24.7(22.9) | 18.8-24.7(21.9) | - |
| Eye diameter | 19.5-21.2(20.4) | 18.0-21.0(19.7) | 18.0-23.4(20.3) | - |
| Measurements expressed as % of caudal peduncle length | | | | |
| Caudal peduncle depth | 45.8-50.6(48.7) | 55.1-58.4(56.8) | 44.8-62.7(53.3) | - |

Figures in parentheses indicates mean values.

papillae consisted of small ones in rows as shown in Fig. 2. This species has a single transverse row and three longitudinal rows of sensory papillae below the eyes. Color in formalin, head and body grayish brown dorsally, whitish gray ventrally. Anterior half of body with a series of about five dark brown cross bands; posterior half with two longitudinal dark bands extending on base of caudal fin. Spinous dorsal with a black spot on its posterior parts; soft dorsal, anal, pectorals, and ventrals gray; caudal yellowish, with black stripes along the caudal fin rays.

Sexual dimorphism:

Urogenital papilla distinct (Fig. 3); pointed in the male, truncated in the female. In the spawning season, the body color of the male darkened and the margin of dorsal fin became yellow, the female's body color faded.

Distribution and Habitat:

Mugilogobius abei has been collected from Mokpo, Puan, and Poryong, the west coast of Korean Peninsula. It is undoubtedly more widespread. And this species was known to occur from the middle part of Honshu southward to the Ryukyu Island in Japan and southern part of China including Hainan Island (Nakamura, 1975). This species inhabits sandy and muddy bottoms of estuarine waters and coastal areas near river mouth. Kanabashira *et al.* (1980) described the spawning season, reproductive behavior and early life history of this species in Japan.

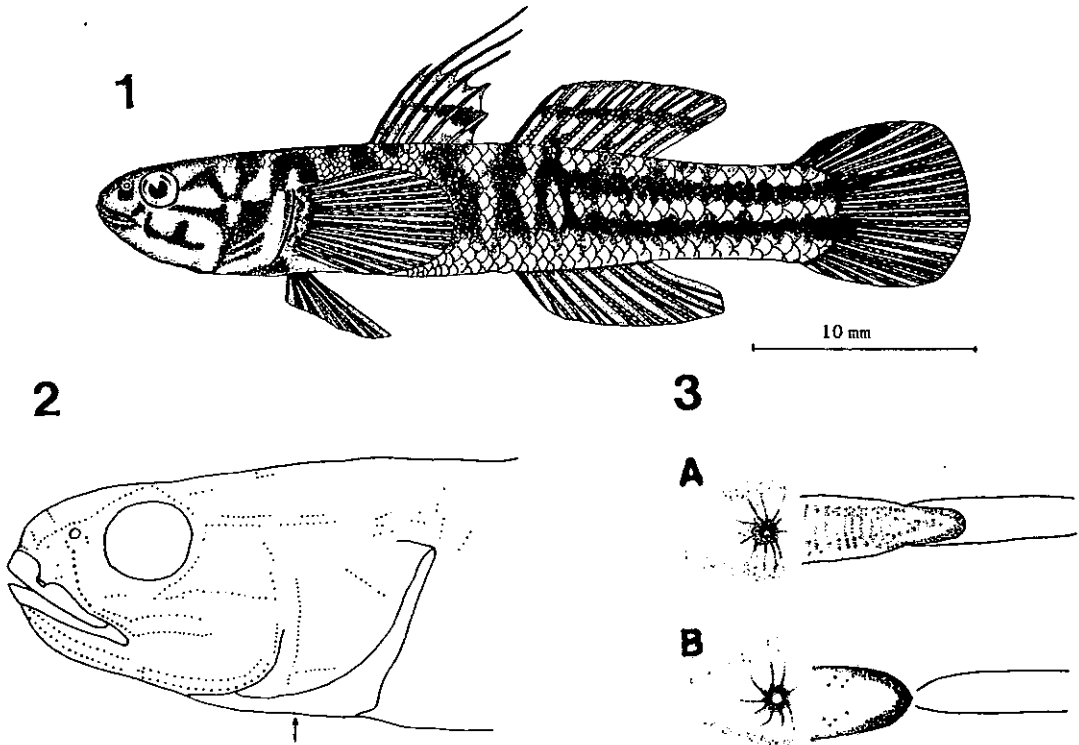


Fig. 1. *Mugilogobius abei* (Jordan et Snyder).

Fig. 2. Fit-lines on head of *Mugilogobius abei*. The arrow showing the position where the gill membranes are attached to the isthmus.

Fig. 3. Urogenital papilla of *Mugilogobius abei*. A. Male, B. Female.

Remark:

Most characters of the present specimens agree well with the original description and figure of *Ctenogobius abei* given by Jordan and Snyder (1901). Tomiyama (1936) transferred this genus from *Ctenogobius* to *Gobius* without any comments. Matsubara (1955) proposed that this species can be identified as genus *Mugilogobius* based on the upper part of opercles with scales. This species differs from other five species of genus *Mugilogobius* of Japan in having the black longitudinal bands on the lateral side of the tail and number of lateral scales presented by Masuda *et al.* (1984), so we have provisionally identified the present specimens with *M. abei*.

ABSTRACT

Thirty specimens of *Mugilogobius abei* (Jordan et Snyder) were collected from Mokpo, Puan and Boryong, the west coast of Korean peninsula. *M. abei* is described and figured as the first record for Korea. This species differs from all other species of the genus of Japan in having two black longitudinal bands on the lateral side of the caudal peduncle.

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