

New Record of Blenny *Omobranchus loxozonus* (Perciformes: Blenniidae) from Jeju Island, Korea

By Byung-Jik Kim* and Jung-Hyun An¹

National Institute of Biological Resources, Incheon 404-170, Korea; ¹Institute of Biodiversity, Jeonju 561-211, Korea

ABSTRACT *Omobranchus loxozonus* is first recorded from Korea based on 31 specimens (32.3~71.5 mm SL) collected from the southern coastal waters of Jeju Island. The species is characterized by having XII~XIV, 19~22 dorsal fin rays, II, 22~24 anal fin rays, and a conspicuous color pattern on the body. A new Korean name "Gu-reum-be-do-ra-chi" is proposed for the species.

Key words : New record, *Omobranchus loxozonus*, Jeju Island, Blenniidae

Thirteen species in eight genera have been recognized in the family Blenniidae from Korea and all of them occur in the coastal waters of Jeju Island (Kim *et al.*, 2005; Kim and An, 2007; Kim and Endo, 2009; Kim *et al.*, 2009). Recently we found 31 specimens belong to the genus *Omobranchus* Valenciennes in Cuvier and Valenciennes, 1836 from the intertidal fish collections of Jeju Island, Korea, and they identified as *O. loxozonus* Jordan and Starks, 1906. The species has been known from only Japan to date (Springer and Gomon, 1975; Aizawa, 2002). We herein describe the species as the first record from Korea on the basis of these specimens.

Methods for Counts and measurements follow Hubbs and Lagler (1958) and vertical fin rays and vertebrae were counted from X-ray radiographs. Voucher specimens are deposited in the National Institute of Biological Resources (NIBR-P), Korea. Specimens with an asterisk does not included in counts and measurements.

Omobranchus loxozonus (Jordan and Starks, 1906)

(New Korean name: Gu-reum-be-do-ra-chi)

(Fig. 1; Table 1)

Peteroscirtes loxozonus Jordan and Starks, 1906: 705, fig. 13 (type locality: Tanegashima, Japan).

Omobranchus loxozonus: Springer, 1972: 14; Springer and Gomon, 1975: 48; Yoshino in Masuda *et al.*, 1984: 296; Aizawa in Nakabo, 2002: 1113.

Materials examined. *Omobranchus loxozonus* (n=31): NIBR-P0000005419, formerly MRIC (Marine and

Environmental Research Institute, Cheju National University, Korea) 1235, 47.7 mm SL, Hwasun-ri, Andeok-myeon, Seogwipo-si, Jeju-do, Korea, 11 May 2002, collected by B. J. Kim and E. J. Kim; NIBR-P0000005420, formerly MRIC 1341~1349, 1352, 10 specimens, 48.2~65.6 mm SL, 23 September 2003, NIBR-P0000005421, formerly MRIC 1246~1250, 5 specimens, 42.4~57.8 mm SL, 26 August 2003, collected by B. J. Kim, Sagye-ri, Andeok-myeon, Seogwipo-si, Jeju-do, Korea, collected by B. J. Kim; NIBR-P0000005422, formerly MRIC 3516, 54.4 mm SL, Changcheon-ri, Andeok-myeon, Seogwipo-si, Jeju-do, Korea, 22 June 2005, collected by B. J. Kim; NIBR-P0000005423, formerly MRIC 4776, formerly MRIC 5227, 32.3~51.8 mm SL, 2 specimens, Sagye-ri, Andeok-myeon, Seogwipo-si, Jeju-do, Korea, 3 November, 2006, collected by B. J. Kim and H. J. Kweon; NIBR-P0000005427*, formerly MRC 5345~5348, 4 specimens, 36.3~44.3 mm SL, 15 July 2007, NIBR-P0000005428*, formerly MRIC 5355~5356, uncatalog., 8 specimens, 34.9~71.5 mm SL, 16 July 2007, Haye-dong, Seogwipo-si, Jeju-do, Korea, collected by B. J. Kim and H. J. Kweon.

Description. Dorsal fin rays XII~XIV, 19~22 (mainly XIII, 21); anal fin rays II, 22~23 (II, 22); pectoral fin rays 13~14 (only one specimen with 14), all segmented and unbranched; pelvic fin rays 2; segmented caudal fin rays 13; dorsal+ventral procurrent caudal rays 10~14; vertebrae 39~41 (39); prenasal pores 2; interorbital pores 3; circumorbital pores 8; lateral line tubes 0~4 (2); mandibular pores 4; median supratemporal commissural pore 1; preopercular pores 5; supratemporal pores 4; upper jaw teeth 20~28; lower jaw teeth 20~30. Proportion as % SL: body depth 14.8~16.6 (mean 15.8); body

*Corresponding author: Byung-Jik Kim Tel: 82-32-590-7241, Fax: 82-32-590-7260, E-mail: kimbyungjik@korea.kr

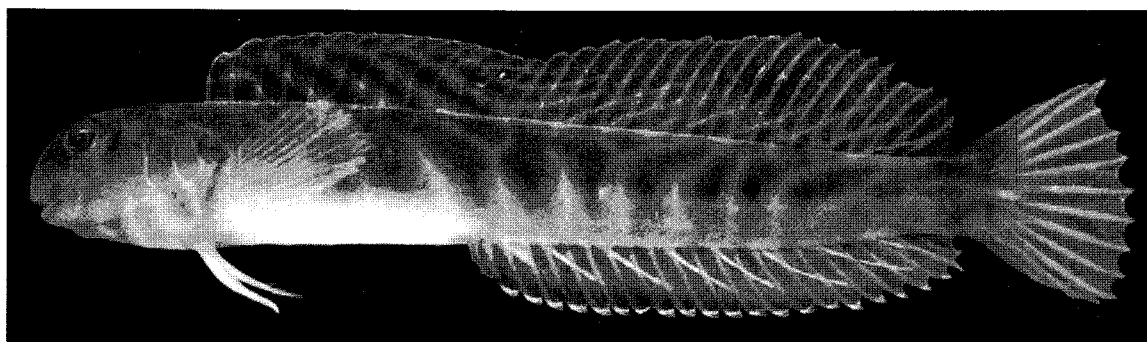


Fig. 1. *Omobranchus loxozonus* (NIBR-P0000005427, 43.1 mm SL) from the southern coastal waters of Jeju Island, Korea.

Table 1. Comparison of counts and measurement of *Omobranchus loxozonus*

	Present study	Jordan and Starks (1906)	Springer and Gomon (1975)
Standard length (SL, mm)	42.4~65.6 (n=16)	40.0~70.0	—
Dorsal fin rays	XII~XIII, 20~22	XIII~XIV, 20	XII~XIV, 19~22
Anal fin rays	II, 22~24	24	II, 21~25
Pectoral fin rays	13~14	—	—
Pelvic fin rays	2	—	—
Segmented caudal fin rays	13	—	13~15
Dorsal+ventral procurrent caudal rays	—	—	10~15
Vertebrae	39~40	—	39~42
Epipleural ribs	—	—	12~16 (13~15)
Interorbital pores	3	—	2~4 (3)
Circumorbital pores	8	—	7~9 (8)
Lateral line tubes	0~4	—	0~4 (0~3)
Upper jaw teeth	20~28	—	16~27
Lower jaw teeth	20~30	—	18~28

width 9.0~12.1 (11.0); head length 19.8~22.2 (21.2); head width 10.4~13.0 (11.8); snout length 6.3~8.4 (6.8); eye diameter 4.1~5.9 (4.8); interorbital width 2.7~3.5 (3.1); predorsal length 19.9~22.9 (21.1); prepectoral length 19.1~22.2 (21.3); prepelvic length 17.1~20.0 (18.3); preanal length 43.7~50.0 (47.4); length of dorsal fin base 67.7~79.2 (77.3); length of anal fin base 48.0~53.9 (50.9); pectoral fin length 15.7~20.0 (17.4); pelvic fin length 11.5~14.3 (13.1); caudal fin length 14.6~17.5 (16.0); caudal peduncle length 6.5~9.2 (8.1); caudal peduncle depth 6.3~9.1 (8.1).

Body elongate and rather compressed. Head moderate and slightly compressed; anterodorsal contour of head steep; no fleshy bladeliike crest on top of head. Eye moderate, interorbital region slightly convex. Nostril two, anterior nostril simple tube and posterior one simple pore. Mouth rather small and lower jaw included; small slender comb-like teeth in a single row and an enlarged and curved canine posteriorly on each side of each jaw; lower lip flap present; gill opening small. Dorsal fin continuous, its base long; soft ray portion rather higher than spinous portion. Anal fin base long; anal spine usually discernible externally. Pectoral fin moderate and round, its posterior tip reaching a vertical at 7th to 8th dorsal spines.

Caudal fin usually truncate.

Color when fresh. Head greenish dorsally and light brownish ventrally with three brown bands; a small green blotch just behind eye; a small orange blotch margined bluish white on opercle. Body greenish brown with approximately 10~11 dark brown bands. Abdomen pale yellowish. Dorsal fin dark brownish in spinous portion, rather greenish soft ray portion; about 11 narrow longitudinal or oblique whitish stripes on fin membrane. Pectoral fin pale yellowish and darker on lower portion. Pelvic fins light yellowish. Anal fin dark greenish with white tip and eight whitish oblique bars on fin membrane. Caudal fin dark greenish.

Color after preservation (as in Springer and Gomon, 1975). Head dusky, a small dark spot behind eye. Body with approximately 10~11 broad dusky bands; anterior 5 or 6 bands inclined dorsoanteriorly, succeeding 4 or 5 inclined dorsoposteriorly, posterior 1 or 2 broken into side-by-side paired. Dorsal fin dusky with dorsoanteriorly oblique stripes on spinous ray portion and narrow dusky stripes on segmented ray portion; sometimes dark oval spot in distal portion between 9th to 13rd segmented rays. Pectoral fin dusky proximally, pale distally. Pelvic fin pale. Anal fin dusky with about 7~8 pale lines slant-

ed ventroposteriorly, darker distally and tips of ray whitish. Caudal fin dusky with two vertically oriented dark blotches on base.

Ecological notes. All specimens of *Omobranchus loxozonus* from Korea were collected from the intertidal pools (less than 0.3 m at depth) in the rocky shore at low tide.

Distribution. Known from the southern Japan (southward from Kii Peninsular, Inland Sea of Seto, Iriomote Island, Springer and Gomon, 1975; Yoshino, 1984; Aizawa, 2002), and Korea (southern coast of Jeju Island only, present study).

Remarks. The present specimens collected from the coastal waters of Jeju Island, Korea were easily identified as a member of the genus *Omobranchus* Ehrenberg in Valenciennes in Cuvier and Valenciennes, 1836, by characteristics of mandibular pores (representatively, 3 interorbital pores and 3 mandibular pores) as well as lower limit of gill opening, as mentioned by Springer (1972) and Springer and Gomon (1975). They subsequently identified as *O. loxozonus* due to the well accordance with the original description of the species by having a typical body color of the species as well as fin counts (Table 1).

Omobranchus loxozonus is mostly similar to *O. germaini* Sauvage, 1883 distributed in Australia north to Taiwan and New Caledonia (Springer and Gomon, 1975). The former species is distinguishable from the latter in the number of fin rays, vertebrae, and lateral line tubes, although overlaps in the ranges for these characters exist (for details see Springer and Gomon, 1975). *O. loxozonus* is easily differentiated from both *O. elegans* (Steindachner, 1876) and *O. punctatus* (Valenciennes in Cuvier & Valenciennes, 1836), which were already known species in Korea, in having a dark spot behind eye and lower portion of gill opening reaching 2~5 pectoral fin rays. We propose a new Korean name, 'Gu-reum-be-do-ra-chi', for the species.

ACKNOWLEDGMENTS

We wish to express our thanks to Hyuk-Jun Kweon and Eui-Jin Kim for their help with field collections. This work was partly supported by Core University Program on Fisheries Sciences between Korea and Japan, granted by KOSEF (Korea Science and Engineering Foundation) and JSPS (Japan Society for the Promotion of Science).

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제주도에서 채집된 청베도라치과 (Blenniidae) 한국미기록종, *Omobranchus loxozonus*

김병직 · 안정현¹

국립생물자원관, ¹생물다양성연구소

요 약 : 우리나라 제주도 남부 연안역에서 채집된 31개체 (체장 32.3~71.5 mm)를 근거로 청베도라치과 한국 미기록종인 *Omobranchus loxozonus*를 기재·보고한다. 본 종의 특징은 등지느러미 기조수가 XII~XIV, 19~22, 뒷지느러미 기조수 II, 22~24, 독특한 체색패턴을 갖는 점이며, 신한국명으로 '구름베도라치'를 제안한다.

찾아보기 낱말 : 한국미기록종, *Omobranchus loxozonus*, 제주도, 청베도라치과