

## First Record of the Gobiid Fish *Eviota melasma* (Perciformes: Gobiidae) from Korea

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**Three specimens (23.5~26.9 mm in SL) of *Eviota* (Gobiidae) were collected from about 13 m depth off Munseom, Jeju Island, Korea. They are identified as *Eviota melasma* by their having a conspicuous black spot on the occipital region of the head and no spots on the dorsal midline of the body. This represents a first record of the species from Korea and a northernmost occurrence of the species.**

**Key words :** *Eviota melasma*, Gobiidae, new Korean record

The small gobiid fish, *Eviota melasma* Lachner and Karnella, 1980, ranges in northwestern Australia north to Ryukyu Islands (Lachner and Karnella, 1980; Akihito *et al.*, 2002). Recently, we collected three specimens of *E. melasma* from the southern coast of Jeju Island, Korea. These specimens represent the first record of *E. melasma* from Korea, and also the hitherto known northernmost locality for the species. The species differs from all other species of *Eviota* in having a conspicuous occipital spot and no dark spots along dorsal midline.

Counts and measurements were followed those of Lachner and Karnella (1980), and median fins and vertebrae were counted from soft X-ray photograph. The present specimens were deposited in Marine and Environmental Research Institute, Cheju National University (MRIC), Korea.

### ***Eviota melasma* Lachner and Karnella, 1980**

(New Korean name: Heuk-jeom-pul-bi-neul-mang-duk)  
(Fig. 1; Table 1)

*Eviota melasma* Lachner and Karnella, 1980: 27 (type locality: Australia, Endeavour Reef) Yoshino and Shimada in Masuda *et al.*, 1984: 234 (Ryukyu Islands, Japan) Myers, 1999: 253 (Micronesia); Akihito *et al.*, 2002: 1179 (Ryukyu Islands, Japan); Allen and Adrim, 2003: 58 (Indonesia); Hayashi and Shiratori, 2003: 50 (Ryukyu Islands, Japan).

**Materials examined.** MRIC 1674~1676, three specimens, 23.5~26.9 mm in standard length (SL), 16 August 2004, about 13 depth, Munseom, Jeju Island, Korea, collected by B.J. Kim, S.H. Choi, H. Endo and G. Shinohara, hand net by SCUBA

**Description.** Counts for the present specimens were shown in Table 1, and compared with those of the original description.

Measurements in % of SL: Head length 28.9~29.8%; snout length 5.4~6.0%; eye diameter 6.3~7.9%; interorbital width 0.4~1.3%; upper jaw length 10.3~11.9%; body depth 21.5~22.6%; snout to origin of first dorsal fin 32.3~33.5%; snout to origin of second dorsal fin 52.8~57.9%; snout to origin of pectoral fin 32.0~33.5%; snout to origin of pelvic fin 29.7~31.4%; snout to origin of anal fin 59.1~62.1%; caudal peduncle length

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**Fig. 1.** *Eviota melasma* Lachner and Karnella, MRIC 1674, 26.9 mm SL, from Munseom, Jeju Island, Korea.

**Table 1.** Comparison of counts between the present specimens and the holotype and paratypes of *Eviota melasma*

	Holotype and paratypes (Lachner and Karnella, 1980)	Present specimens
Standard length (mm)	8.4 ~ 26.6 ( $n = 169$ )	23.5 ~ 26.9 ( $n = 3$ )
Dorsal fin rays	IV ~ VI, I, 8 ~ 10	VI ~ I, 10
Anal fin rays	I, 8 ~ 9	I, 9
Pectoral fin rays	14 ~ 18	17 ~ 18
Pelvic fin rays	I, 4	I, 4
Fourth rays of pelvic fin		
No. of branches	Average 7.3	Average 6.6
No. of segments between consecutive branches	1 ~ 7	3 ~ 5
Branched caudal fin rays	11 ~ 14	14
Lateral scale rows	23 ~ 25	25 ~ 26
Transverse scale rows	5 ~ 7	7
Vertebrae	26 ~ 27	26

22.6 ~ 25.7%; caudal peduncle depth 12.8 ~ 14.9%; length of first dorsal spine 14.9 ~ 32.0%; length of 9th dorsal ray 15.3 ~ 24.9%; length of 1st anal spine 9.4 ~ 9.9%; length of 8th anal ray 17.8 ~ 25.3%; length of pectoral fin 27.9 ~ 28.5%; length of pelvic fin 26.8 ~ 30.6%.

Body short, moderately stocky, and compressed. Caudal peduncle rather deep, and compressed. Head round, large and rather compressed. Eye oval, large and its diameter about 1.5 times in snout length; interorbital region very narrow and nearly flat. Mouth oblique and small, its posterior tip below center of eye. First dorsal spine in male elongate and filamentous, its posterior tip extending base of fourth ray of second dorsal fin (Fig. 1). Pectoral fin rather large, its posterior tip below third ray of second dorsal

fin. Pelvic fin long beyond anus. Cephalic sensory pore system pattern 1 (*sensu* Lachner and Karnella, 1980). Genital papilla nonfimbriate in male and bulbous in female.

**Color when fresh.** Ground color of head and body pale yellowish brown. A conspicuous black occipital spot on each side of head. Head with reddish brown bars. Yellowish orange spots scattered on side of body, six reddish brown bars on lower portion of lateral body. First and second dorsal fins with scattered small orange spots and same spots on anterior region of caudal fin. Fin membrane of anal fin yellowish brown with three reddish transverse bars. Two roughly rectangular reddish spots on pectoral base. Pectoral fin transparent and pelvic dusky.

**Color after preservation.** Ground color of

head and body pale and scale pockets with dusky crescent-shaped marks. A conspicuous black occipital spot on each side of head (large and squarish in male, whereas small and round in female); one or two brownish spots on upper cheek and below eye just behind rictus of jaw. Two brownish dusky spots on ventral surface of lower jaw in only female. Two spots on base of pectoral fin in female (obscure in male). Six dark spots associated with six weak subcutaneous bars on ventral midline of trunk. First and second dorsal fins clear basally, outer portion dusky (appearing very small white spots scattered on fin membrane in male, whereas clear except for basal and outer regions in female). Anal fin heavily pigmented and dusky. Pectoral and pelvic fins clear. Caudal fin dusky to light brownish, lower portion rather darker.

**Distribution.** Known from the Western Pacific: Ryukyu Islands, off Vietnam, Cocos (Keeling) Island, Western Australia, Fiji, Eniwetok Atoll, Micronesia, Indonesia (Lachner and Karnella, 1980, Randall, 1997; Myers, 1999; Allen and Adrim, 2003), and Korea (present study). Munseom of Jeju Island, Korea represents the hitherto known northernmost locality for the species.

**Remarks.** Our specimens from Jeju Island, Korea agree well with general characteristics as well as counts of the original description of *Eviota melasma* (Table 1). The species is characterized by having a dark occipital spot on each side of head and no dark spots along dorsal midline (Lachner and Karnella, 1980; Akihito *et al.*, 2002; Hayashi and Shiratori, 2003). *E. melasma* differs from its most similar species, *E. smaragdus* Lachner and Karnella, 1980 in having a longer pelvic fin, a shorter fifth pelvic fin ray, more branches on the fourth pelvic fin ray, fewer segments between the branches of the fourth pelvic fin ray, fewer branched pectoral fin rays, and the males have a longer genital papilla (Lachner and Karnella, 1980).

Two species, *Eviota abax* (Jordan and Snyder, 1901) and *E. prasina* (Klunzinger, 1871), were reported from Korea (coastal waters of Jeju Island) by date (Kim and Go, 2003). *E. melasma* is readily differentiated from the former in no having two dark spots on pectoral base (present for *E. abax*), and from the latter by no having a dark spot on base of caudal fin (present for *E. prasina*). We proposed the new Korean name,

'heuk-jeom-pul-bi-neul-mang-duk', for the species.

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제주도 문섬 주변해역에서 채집된 망둑어과 한국미기록종, *Eviota melasma*김 병 직\* · 최 승 호<sup>1</sup> · 이 영 돈제주대학교 해양과환경연구소, <sup>1</sup>생물다양성연구소

스쿠바다이빙에 의한 제주도 남부해역에 위치한 문섬 주변해역의 어류상을 조사하던 중 수심 약 13 m에서 망둑어과의 풀비늘망둑속 *Eviota*에 속하는 한국미기록종 어류 3개체를 채집하였다. 본 종은 후두부에 1쌍의 큰 흑점이 있고, 등쪽 정중선을 따라 흑점이 없는 점에서 *E. melasma*로 동정되었다. 제주도 문섬 주변해역에서의 출현은 지금까지 알려진 본 종의 최고 북방기록이며, 본 종의 국명은 '흑점풀비늘망둑'이라고 명명하였다.