

(Notes)

First Record of *Epinephelus areolatus* (Perciformes: Serranidae) from Korea

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One specimen of *Epinephelus areolatus*, belonging to the subfamily Epinephelinae of the family Serranidae, was collected by a hook from commercial longline fisheries in the coastal waters of Jeju Island, Korea. This species is mostly similar to *E. chlorostigma*, but the former is distinguished from the latter by having larger brown spots and a white posterior margin on the caudal fin. We propose a new Korean name “Dae-moon-ba-ri” for *E. areolatus*.

Key words: First record, *Epinephelus areolatus*, Serranidae, Jeju Island

Introduction

Sea basses (family Serranidae), comprising three subfamilies of 64 genera with about 475 species, are widely distributed in tropical and temperate seas of the world; a few species, however, inhabit freshwater areas (Nelson, 2006). Grouper genus *Epinephelus*, belonging to the family Serranidae, comprises about 167 species, inhabiting marine habitats around the world (The Catalog of Fishes On-line: www.calacademy.org). Many of these species are economically important for aquaculture. In Korea, 12 species of *Epinephelus* have been reported thus far (Kim et al., 2005).

One specimen of *Epinephelus areolatus*, belonging to the subfamily Epinephelinae of the family Serranidae, was collected by a hook from commercial longline fisheries in the coastal waters of Jeju Island on May 30, 2010. The morphological characteristics of *E. areolatus* were described in order to be added to the list of Korean fish fauna.

Materials and Methods

Epinephelus areolatus was collected from Daejeong-eup, Jeju-do, Korea in May 30, 2010. The comparative materials include *E. chlorostigma* (n=1): JNU 20100611, 202.0 mm SL, longline, Daejeong-eup,

Jeju-do, Korea. June 11, 2010.

Counts and measurements of this specimen follow the method of Nakabo (2002). The examined specimen was deposited at the Fish Genetics and Breeding Laboratory, Jeju National University (JNU), Korea.

Results and Discussion

Description. Measurements of morphological traits for the present specimen are shown in Table 1. Measurements are shown as a percentage against standard length (SL): body depth 31.0; body width 14.2; head length 35.1; upper jaw 13.6; snout length 10.9; eye diameter 6.5; interorbital length 6.4; predorsal fin 34.0; prepectoral fin 35.0; preanal fin 64.0; length of longest dorsal fin ray 11.9; length of longest pectoral fin ray 17.0; length of longest anal fin ray 17.2; caudal peduncle depth 10.6; caudal peduncle length 19.4.

Body was moderately elongated and compressed; mouth slightly large and interorbital space slightly convex; protruding lower jaw more than upper jaw; maxilla extending to hind margin of orbit; posterior margin of preopercle serrated and three spines on corner of preopercle; three large strong spines on opercle; dorsal spines slender and the third longest; pelvic fins triangular and nearly reaching anus; soft part of anal fins rounded, the third longest ray; caudal fin slightly emarginate to truncate.

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Table 1. Comparison of morphological characters of *Epinephelus areolatus* and *E. chlorostigma* observed in this study and previously reported

Morphological characters	<i>Epinephelus areolatus</i>			<i>Epinephelus chlorostigma</i>	
	Present study	Lee (1990)	Randall and Heemstra (1991)	Present study	Randall and Heemstra (1991)
Standard length (mm)	222 (n=1)	123-202 (n=2)	138-305 (n=35)	202 (n=1)	117-508 (n=41)
Counts					
Dorsal fin rays	XI, 16	XI, 16	XI, 15-17	XI, 17	XI, 16-17 (usually 17)
Anal fin rays	III, 7	III, 7-8	III, 7-8 (rarely 7)	III, 8	III, 8
Pectoral fin rays	17	17-18	17-19 (rarely 19)	17	17-19 (rarely 19)
Ventral fin rays	I, 5	-	-	I, 5	I, 5
Branched caudal fin rays	15	15	-	15	-
Lateral line scales	51	-	49-53	48	48-53
Lateral scale series	106	-	97-116	102	96-125
Gill rakers	8+14	9+14	8-10+14-16	8+15	8-11+14-18

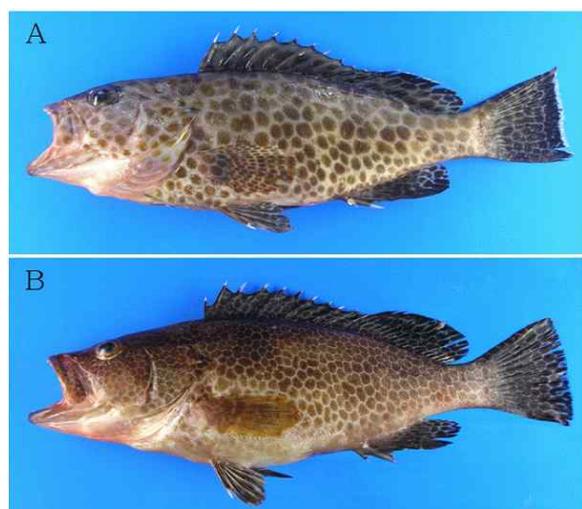


Fig. 1. A: *Epinephelus areolatus*, JNU 20100530, 222.0 mm SL; B: *E. chlorostigma*, JNU 20100611, 202.0 mm SL.

Color in fresh. Densely covered with rounded or polygonal yellow brown spots on body, head and all fins; whitish posterior margin of the caudal fin.

Color in alcohol. Body uniformly pale brown; dark brown spots on body, head and all fins; gray posterior margin of the caudal fin.

Distribution. Western Pacific from southern Japan to northern Queensland, Australia, and west to the

Persian Gulf, Red Sea, East Africa (Heemstra and Randall, 1986; Randall and Heemstra, 1991), and the western coastal waters of Jeju Island, Korea (present study).

Remarks. The present specimen, collected from the coastal waters of Jeju Island, Korea, was characterized by having many dark brown spots on the body and a white posterior margin of the caudal fin. The morphological characteristics of the specimen matched the species description given by previous studies (Randall and Heemstra, 1991; Senou, 2002) and all counts of the present specimen coincide with those of Randall and Heemstra (1991) (Table 1). *E. areolatus* is morphologically similar to *E. chlorostigma*, but the former is distinguished from the latter by having larger brown spots and a white posterior margin on the caudal fin (Senou, 2002; Fig. 1). We propose a new Korean fish name, “Dae-moon-ba-ri,” for *E. areolatus*.

Acknowledgments

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