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First Record of Carangid Fish, *Carangoides oblongus* (Carangidae, Perciformes) from Korea

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ABSTRACT A single specimen of *Carangoides oblongus* (133.8 mm SL) belonging to the family Carangidae was firstly collected by a set net from the coastal waters of Jeju Island, Korea. This species resembles *Carangoides dinema*, but the former is morphologically distinguishable from the latter by lateral line being shorter than straight part, the number of lateral line scutes (37～45 in *C. oblongus* vs. 20～30 in *C. dinema*), second dorsal fin rays (20～22 vs. 17～19), and anal fin rays (18～19 vs. 15～17). We newly add this species to the Korean fish fauna and propose its new Korean name "Chae-jjik-yu-jeon-gaeng-i".

Key words : *Carangoides oblongus*, Carangidae, first record, Jeju Island, Korea

INTRODUCTION

A total of 22 species has been reported worldwide in the genus *Carangoides* Bleeker, 1851. This genus is characterized by having both jaws with a band of teeth and breast being naked ventrally to scaled completely (Lio and Shoa, 1999). In Korea, four species of *Carangoides* have been reported so far. That is, *C. dinema* and *C. uii* were collected from Busan (Mori, 1952; Park *et al.*, 2007), whereas *C. ferdau* and *C. orthogrammus* from Jeju Island (Yoo *et al.*, 1995; Kim *et al.*, 1999).

In this study, a single specimen of *C. oblongus* was firstly collected by a set net from the northern coastal waters of Jeju Island, Korea. The morphological characters of *C. oblongus* were described and newly added to the Korean fish fauna.

Counts and measurements were followed by the methods of Gushiken (1983) and Hubbs and Lagler (1964). The examined specimen was deposited at the Fish Genetics and Breeding Laboratory, Cheju National University (CNU), Korea.

Carangoides oblongus (Cuvier, 1833)
(New Korean name: Chae-jjik-yu-jeon-gaeng-i)
(Fig. 1; Table 1)

Caranx oblongus Cuvier in Cuvier and Valenciennes, 1833: 128 (type locality: Vaniclo, New Guinea).

Carangoides oblongus: Bleeker, 1852: 62 (Sumatra); Fowler, 1928: 151 (Oceania); Shen *et al.*, 1993: 335 (Taiwan); Lin and Shao, 1999: 54 (Taiwan); Fricke 1999: 246 (Mascarene Islands); Smith-Vaniz 1999: 2705 (Western Central Pacific); Smith-Vaniz in Randall and Lim 2000: 616 (listed, South China Sea).

Carangichthys oblongus: Gushiken, 1983: 223 (Japan); Gushiken in Masuda *et al.*, 1984: 140 (Japan); Senou in Nakabo, 2002: 804 (Japan).

Material. CNU 20070815, one specimen, 133.8 mm in standard length (SL), Aewol-eup, Jeju-si, Jeju-do,

Fig. 1. *Carangoides oblongus* (Cuvier), CNU 20070815, 133.8 mm SL, Jeju Island, Korea.

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Table 1. Comparison of the morphological characters of *Carangoides oblongus*

Morphological characters	Present study	Wakiya (1924)	Gushiken (1983)	Lin and Shao (1999)
Fork length (mm)	116.1 (n=1)	–	–	250 (n=2)
Standard length (mm)	133.8	200 (n=1)	115~171 (n=14)	–
Counts				
Dorsal fin rays	VIII-I, 20	VIII-I, 21	VIII-I, 21~22	VIII-I, 21
Pectoral fin rays	I, 19	–	I, 19~20	I, 19~20
Pelvic fin rays	1, 5	–	–	–
Anal fin rays	II-I, 18	II-I, 18 or 19	II-I, 18~19	II-I, 18~19
Caudal fin rays	18	–	–	–
Scutes	39	40	38~42	37~42
Gill rakers	8+19	–	(8~9)+(18~20)	(8~9)+18
Measurements (% against SL)				
Body depth	42.6	36.6	39.1~42.2	–
Head length	27.6	27.7	29.5~29.9	–
Snout length	8.5	8.4	8.8~9.3	–
Eye diameter	6.7	6.0	8.0~8.3	–
Postorbital length	13.7	–	14.3~15.0	–
Interorbital width	9.6	–	7.5~7.8	–

n: the number of specimens examined.

Korea, set net, about 15 m depth, 15 August 2007.

Description. Counts and measurements are shown in Table 1. Measurements are revealed as a percentage against standard length (SL): body depth 42.6; head length 27.6; snout length 8.5; eye dimeter 6.7; postorbital length 13.2; interobital width 9.6; upper jaw length 11.1; first predorsal fin length 31.5; second predorsal fin length 46.4; prepectoral fin length 28.1; prepelvic fin length 30.7; preanal length 55.8; length of longest dorsal fin ray 43.8; length of longest pectoral fin ray 32.2; length of longest anal fin ray 35.0; length of curved lateral line scale 35.1; length of straight part of lateral line scale 40.2.

Body oblong, compressed; dorsal profile more convex than ventral profile; dorsal profile evenly and gently curving down from second dorsal fin to tip of snout; orbit diameter smaller than snout length; both jaws with bands of small teeth; chord of curved part of lateral line shorter than straight part and straight part start from the eighth or ninth soft ray of second dorsal fin; first soft ray of both dorsal and anal fins much prolonged; length of longest dorsal fin ray longer than that of longest anal fin ray; breast naked ventrally to origin of pelvic fins; laterally, naked area of breast separated from naked pectoral fin base by having a moderate to narrow band of scales (Fig. 2).

Color when fresh. Head and body bluish green above, silver below; small pale black blotches among second dorsal fin base; opercular spot diffuse; dorsal fin yellow with dusky dark posterior margin; pectoral, pelvic and anal fins yellow; upper lobe and posterior end of lower lobe of caudal fin dusky blue and the other region of caudal fin yellowish.

Color after preservation. Body pale brownish gray above, white ventrally; beneath eye brownish; pale black blotches among second dorsal fin base; upper lobe of caudal fin darker; lower lobe pale ivory with a darker posteriorly; dorsal fin edged darker; pectoral fin, pelvic fin and anal fin pale ivory.

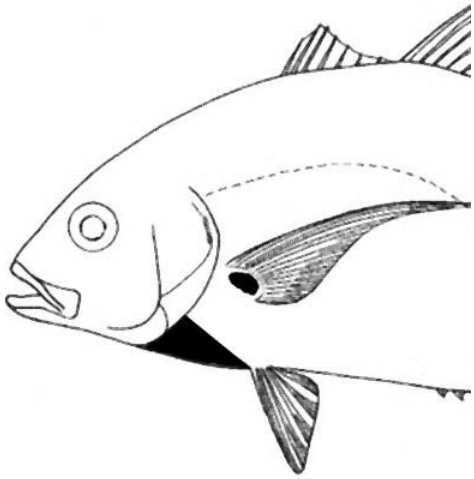

Fig. 2. Black parts indicate the naked area of breast.

Distribution. Known from the Indo-West Pacific Ocean: Japan, Korea (present study) to Australia and eastward to the Fiji Islands (Simth-Vaniz, 1986; Smith-Vaniz, 1999).

Remarks. The morphological characteristics of the present specimen agreed well with those in the previous reports on *C. oblongus*. They included small pale black blotches between bases of second dorsal fin rays, curved part of lateral line shorter than straight part (Smith-Vaniz, 1999; Senou, 2002), and counts (see Table 1). However, the generic name *Carangoides* is still controversial. Gushiken (1984) and Senou (2002) used the

genus *Carangichthys* instead of *Carangoides* because this group of fish has teeth on the ectopteryogid, which is unique to *Carangichthys* (Gushiken, 1983). In contrast, many taxonomists have prevalently used *Carangoides* rather than *Carangichthys* as a genus name (Smith-Vaniz, 1999; Lin and Shao, 1999). Thus, we used the genus *Carangoides* in this study, not *Carangichthys*.

Although this species resembles *Carangoides dinema*, it is distinguished from *C. dinema* by having the second dorsal fin with 20～22 soft rays (vs. 17～19 for *C. dinema*), anal fin with 18～19 soft rays (vs. 15～17), 37～45 scutes (vs. 23～30), and longer straight part of lateral line than curved part (vs. straight part shorter than curved part) (Senou, 2002). We suggest a new Korean name "Chae-jjik-yu-jeon-gaeng-i" for *C. oblongus*.

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한국산 전갱이과 어류 1 미기록종, *Carangoides oblongus*

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요 약 : 전갱이과에 속하는 *Carangoides oblongus* 1개체 (표준체장 133.8 mm)가 제주연안의 정치망에서 처음으로 채집되었다. 이 종은 형태적으로 *C. dinema*와 유사하지만 옆줄의 직선부가 곡선부보다 길고, 미병부의 옆줄 위 모비늘 수, 등지느러미 연조 수 및 뒷지느러미 연조 수에서 차이를 나타내었으며, 이 미기록종의 신한국명을 “채찍유전갱이”라고 명명하였다.

찾아보기 낱말 : 전갱이과, 채찍유전갱이, 미기록종, 제주도