

First Record of a Gaper *Champsodon longipinnis* (Perciformes: Champsodontidae) from Korea

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Abstract

This is the first report of *Champsodon longipinnis* (Champsodontidae) collected from Korea. The specimen (100.9 mm in standard length) was caught by a bottom trawl in the coastal waters off Busan, Korea. This species is characterized by the following morphological traits: body with small denticulate scales except abdomen around pelvic fin base; posterior end of maxilla extending beyond margin of eye; dark pigmentation on most of the first dorsal fin, upper half of the first to the fourth soft ray of the second dorsal fin, and partial upper lobe of caudal fin. We add *C. longipinnis* to the Korean fish fauna and suggest a new Korean name, "Jeom-ak-eo-chi," for the species.

Key words: First record, *Champsodon longipinnis*, Champsodontidae, off Busan, Korea

Introduction

The champsodontid fishes are recognized by a sole genus, *Champsodon* Günther, 1867, containing 13 species and are distributed in the tropical and Indo-Pacific Ocean (Nelson, 2006). The family is characterized by having a large head and mouth, an elongate compressed body densely covered with small denticulate scales, a short spinous dorsal fin, small pectoral fins, unusually large pelvic fins, and a forked caudal fin (Nemeth, 1994). Among the 13 species of the genus *Champsodon*, only one species (*Champsodon snyderi* Franz, 1910) has been reported in Korea so far (Kim et al., 1995). A single specimen of *Champsodon longipinnis* was collected by a bottom trawl in the coastal waters off Busan on October 28, 2012. Here, we describe the morphological characteristics of *C. longipinnis* as an addition to the list of Korean fishes based on the specimen.

Materials and Methods

Counts and measurements followed the method of Hubbs and Lagler (2004). The examined specimen was deposited at the Fish Genetics and Breeding Laboratory, Jeju National University (JNU), Korea.

Results and Discussion

Champsodon longipinnis Matsubara and Amaoka, 1964

(New Korean name: Jeom-ak-eo-chi)
(Figs. 1, 2; Table 1)

Matsubara and Amaoka in Matsubara, Ochiai, Amaoka and Nakamura, 1964: 10 (type locality: off Todorō, Miyazaki Prefecture, Japan); Amaoka, 1984: 221 (Japan); Nemeth, 1994: 357 (Australia, Indonesia, Philippines, Japan); Mooi and



Fig. 1. *Champsodon longipinnis*, JNU-869, 100.9 mm SL, bottom trawl, off Busan, Korea. Scale bars = 10 mm.

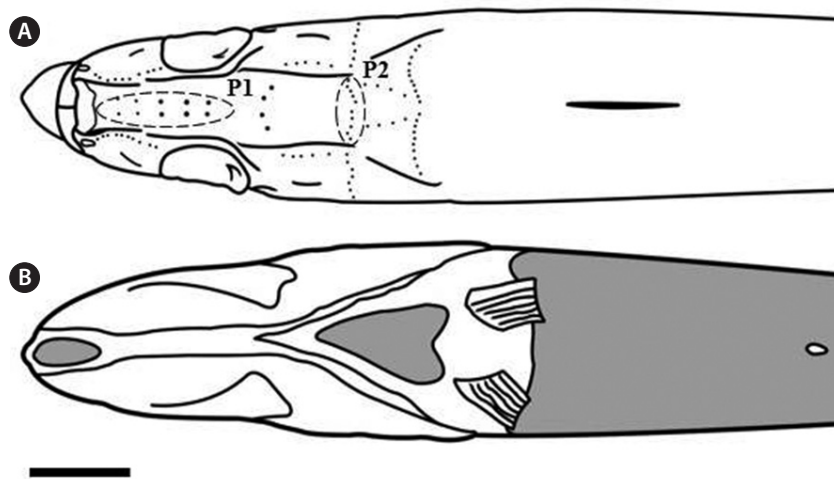


Fig. 2. The Illustrations of the head region of *Champsodon longipinnis*. A, dorsal sensory papillae and bony ridges on the head (P1, five pairs of sensory papillae between parallel bony ridges on the dorsal surface of the head; P2, transverse row of ten sensory papillae between the posterior margins of the pterotic ridges); B, distribution pattern of ventral scales shaded grey; pelvic fins are cut to expose the abdomen. Scale bar = 5.0 mm.

Johnson, 1997: 158 (Australia, Philippines, Japan); Nemeth, 2001: 3499 (Australia, Indonesia, Philippines, Japan); Hataoka, 2002: 1071 (Japan).

Material examined

JNU-869, one specimen, 100.9 mm in standard length (SL), bottom trawl, ~100 m depth, off Busan, Korea, 28 October 2012.

Description

Counts and measurements for the present specimen are shown in Table 1.

Body compressed and covered with small denticulate scales except abdomen around pelvic fin base (Fig. 2A); head and mouth large; posterior end of maxilla extending beyond mar-

gin of eye; eye with dark posterodorsal cirrus split into two branches; five pairs of sensory papillae between parallel bony ridges on dorsal surface of head, from snout to interorbital; transverse row of ten sensory papillae between the posterior margins of the pterotic ridges (Fig. 2B); pectoral fins short, reaching level of the fifth dorsal-fin spine; pelvic fins elongate, reaching level of anus; upper half of the first dorsal fin, half of the first-fourth soft ray of the second dorsal fin and partial upper lobe of caudal fin dark.

Color when fresh: Body dark brown dorsally; silvery white ventrally; with a row of spots where dark and light pigmentation meet; a part of the first dorsal fin, second dorsal and partial upper lobe of caudal fin dark; caudal base with dark blotch.

Color in alcohol: Dark brown dorsally color paler than alive; a part of the first dorsal fin, the second dorsal and partial upper lobe of caudal fin still dark.

Table 1. Comparison of morphological characters of *Champsodon longipinnis*

Morphological characters	Present study	Matsubara and Amaoka (1964)	Nemeth (1994)
Standard length (mm)	100.9 (n=1)	92.0-135.0 (n=7)	33.4-138.1 (n=22)
Counts			
Dorsal fin rays	V, 20	V, 21-22	V, 20-22
Anal fin rays	20	19-20	18-20
Pectoral fin rays	14	-	14-16
Pelvic fin rays	I, 5	I, 5	-
Gill rakers	2+12	12-14 (lower)	1-2+12-14
In % of SL			
Head length	27.7	26.3	26.3-30.3
Body depth	17.2	19.2	11.8-17.9
Depth of caudal peduncle	6.2	6.1	5.2-6.9
Predorsal	34.6	31.3	-
Preanal	49.1	47.6	49.0-53.0
In % of head length			
Snout length	32.3	30.3	21.4-33.3
Eye diameter	17.6	20.0	17.5-24.4
Pelvic fin length	77.1	-	71.4-83.3
Maxilla	59.1	62.5	58.8-71.4
In % of eye size			
Interorbital width	82.9	-	41.7-83.3
Least distance between eye and maxilla	66.3	-	50.0-72.0
In % of predorsal fin length			
Distance between spinous and soft dorsal fin rays	24.2	-	24.0-49.0

Distribution

Widely known from Indo-West Pacific: Japan, Philippines, Indonesia, Australia (Matsubara and Amaoka in Matsubara et al., 1964; Nemeth, 1994; Hatooka, 2002), and Korea (coastal waters off Busan, present study).

Remarks

The present specimen was easily distinguishable from the family (Champsodontidae) by having small denticulate scales except abdomen around pelvic fin base (Fig. 2A), posterior end of maxilla extending beyond margin of eye, dark pigmentation on most of the first dorsal fin, upper half of the first-fourth soft ray of the second dorsal fin, and upper lobe of caudal fin. The morphological characteristics of the specimen were well matched with the species description given by previous studies (Amaoka, 1984; Nemeth, 1994), and all counts of the present specimen coincide with those of Nemeth (1994). *C. longipinnis* is morphologically similar to *C. pantolepis* (Nemeth, 1994), but is distinguished from the latter by having a pectoral fin with 14-16 rays (vs. 13 rays for *C. pantolepis*), posterior end of maxilla extending beyond margin of eye (vs. almost reaching posterior margin of eye) (Fig. 1) (Nemeth, 1994; Hatooka, 2002). It is also morphologically similar to *C. snyderi* which is only known Korean Champsodontid fish at a

glance. However, *C. longipinnis* is easily distinguished from *C. snyderi* by having dark pigmentation on dorsal fin and caudal fin. We propose a new Korean name, “Jeom-ak-eo-chi,” for *C. longipinnis*.

Acknowledgments

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