

New Record of the Chinamanfish, *Symphorus nematophorus* (Perciformes: Lutjanidae) from Korea

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ABSTRACT A single specimen of *Symphorus nematophorus* (481.0 mm in SL), belonging to the family Lutjanidae, was firstly collected by a set net in the coastal waters of Geojae Island, located in south sea of Korea on August 1, 2014. This specimen was characterized by having the anterior dorsal soft rays produced into filaments, a pit between eye and nostril, no tooth on vomer, and nine longitudinal blue strips on both sides of the body. We propose a new Korean name, “Sil-tung-dom-sok” and “Sil-tung-dom” for the genus and species, respectively.

Key words: Lutjanidae, *Symphorus nematophorus*, new record, Geojae Island, Korea

INTRODUCTION

The snapper fish (family Lutjanidae), belonging to the order Perciformes, comprises 185 species in 17 genera worldwide (Nelson, 2006). Among them, 13 species in five genera were known in Korea (Kim *et al.*, 2005, 2012). The family Lutjanidae is characterized by having scales on the cheek, preopercle and gill cover, but no scales on the snout or preorbital area (Allen, 1984; Nelson, 2006).

The genus *Symphorus* Günther, 1872 comprises only one species of *Symphorus nematophorus* (Bleeker, 1860) worldwide and is characterized by having the anterior portion of dorsal and anal fins elongated much longer than the posterior part in juvenile and subadult, and no tooth on the vomer as well (Allen, 1985).

Recently, a single specimen of *S. nematophorus* was firstly collected by a set net in the coastal waters of Geojae Island located in the South Sea of Korea on August 1, 2014. Here, we describe the morphological characters of *S. nematophorus* as a new addition to the list of Korean fishes.

MATERIALS AND METHODS

The specimen was preserved in 10% formalin for a week and then transferred to 70% ethanol. Counts and measurements are followed by the methods of Hubbs and Lagler (1964). The examined specimen is deposited at the Fish Genetics and Breeding Laboratory, Jeju National University (JNU), Korea.

RESULTS AND DISCUSSION

Genus *Symphorus* Günther, 1872

(New Korean genus name: Sil-tung-dom-sok)

Symphorus Günther, 1872: 438 (type species: *Symphorus taeniolatus* Günther, 1872 = *Symphorus nematophorus*).

Vomer toothless; anterior portion of dorsal (third through sixth) and anal fins (second through fourth) elongated much longer than posterior part in juvenile and subadult; snout more rounded without an interorbital hump; a groove or pit between eye and nostril. One species of *S. nematophorus* in the world (Allen, 1985).

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Table 1. Comparison of the morphological characters of *Symphorus nematophorus*

Morphological characters	Present study	Bleeker (1860)	Lee (1987)
Number of Specimens	1	2 (syntype)	1
Total length (mm)	579.5	–	–
Standard length (mm)	481	860, 880	355
In % of standard length			
Head length	29.9	–	32.3
Body depth	37.3	–	34.6
Pectoral length	24.3	–	25.6
Counts			
Dorsal fin rays	X, 16	X, 15~16	XI, 15
Pectoral fin rays	17	II, 14	17
Pelvic fin rays	I, 5	I, 5	–
Anal fin rays	III, 9	III, 9~10	III, 9
Caudal fin rays	17	–	–
Gill rakers	5 + 13 (including rudiments)	–	5 + 13
Lateral line scales	56	–	52

***Symphorus nematophorus* (Bleeker, 1860)**

(New Korean name: Sil-tung-dom)

(Fig. 1; Table 1)

Mesoprion nematophorus Bleeker, 1860: 56 (type locality: Celebes).*Symphours nematophorus*: Allen, 1985: 160 (Indo-western Pacific); Lee, 1987: 280 (Taiwan); Allen and Swainston, 1988: 17 (north-western Australia); Randall and Lim, 2000: 618 (South China Sea); Shimada, 2002: 827 (Japan); Randall, 2005: 256 (South Pacific).**Material examined.** JNU-1400, 481.0 mm in standard length (SL), set net, Geojae Island, August 1, 2014.**Description.** Measurements and counts of morphological traits for the present specimen are shown in Table 1. Measurements are revealed as a percentage against SL: body depth 37.3; body width 18.2; head length 29.9; upper jaw length 12.6; snout length 14.3; eye diameter 4.2; interorbital length 11.6; predorsal fin length 33.3; prepectoral fin length 27.4; preanal fin length 60.9; length of longest dorsal fin ray 23.2; length of longest pectoral fin ray 24.3; length of longest anal fin ray 23.2; caudal peduncle depth 12.4; caudal peduncle length 19.5.

Body moderately elongate and compressed, covered with ctenoid scales aligned in horizontal rows; a low scaly sheath at base of dorsal and anal soft rays; six and seven series of scales on the cheek and opercle, respectively; anterior profile of head curved steeply; lower jaw similar to upper jaw; maxilla extends to below anterior margin of eye; eye somewhat small and located above dorsal part

of head; teeth in both jaw form narrow bands with outer ones enlarged and canine teeth present at front of upper jaw; a pit between eye and nostril; tongue with granular teeth; vomer toothless; dorsal fin continuous and anterior dorsal soft rays (third through sixth) produced into filaments; anal soft rays slightly elongated; pectoral fin pointed and its posterior tip reaching below the seventh dorsal spine; pelvic fins triangular and its transverse posterior tip not reached anus; no black blotch on caudal peduncle and caudal fin emarginate.

Color when fresh. Body and head overall reddish, but yellowish-red ventrally; black transverse bars on dorsal part of body; all fins red with yellowish posterior margin; caudal fin margin black; nine longitudinal bright blue strips on both sides of body.**Color in alcohol.** Body uniformly pale brown; dark transverse bars on dorsal part of body; all fins yellowish; posterior margin of caudal fin black; nine longitudinal pale strips on both sides of the body.**Distribution.** Western Pacific throughout the Indo-Australian northward to Japan (Allen, 1985) and Korea (present study).**Remarks.** The present specimen was collected in the coastal waters of Geojae Island, Korea. It was characterized by having toothless vomer, elongated filaments at the anterior portion of dorsal fin, emarginate caudal fin, and a deep groove between eye and nostril. When the morphological characters of the present specimen were examined and compared with those previously reported on *S. nematophorus*, all morphological traits were well



Fig. 1. *Symphorus nematophorus* (Bleeker, 1860), JNU-1400, 481 mm SL, Geojae, Korea.

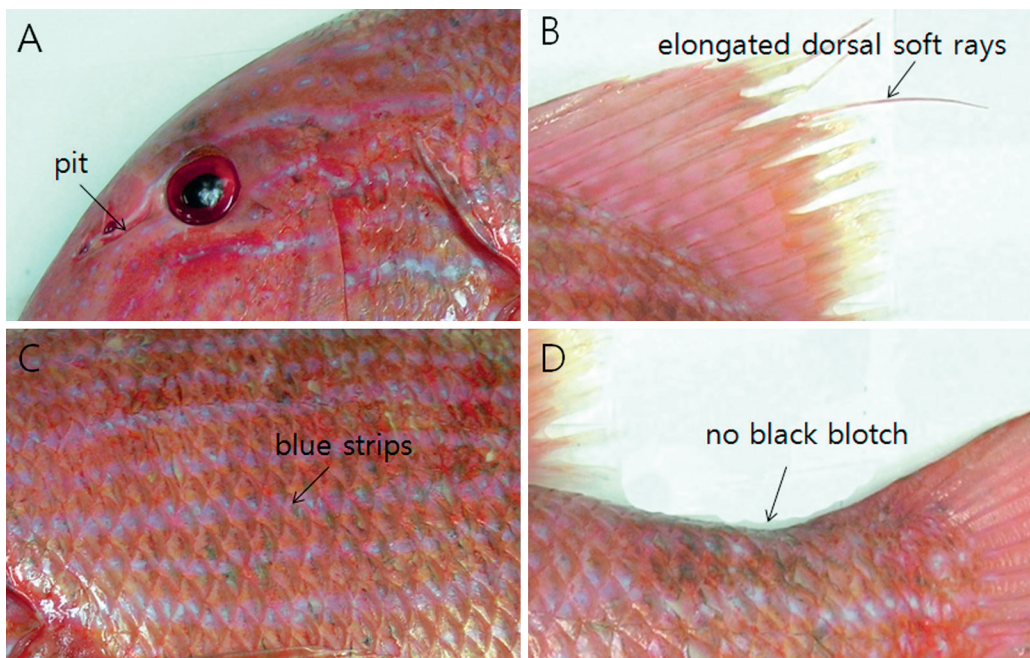


Fig. 2. A photograph showing a pit in front of eyes (A), dorsal soft rays (B), longitudinal blue lines on body sides (C), and no black blotch on caudal peduncle (D).

matched each other (Bleeker, 1860; Lee, 1987; Table 1). Thus, we identified our specimen to be *S. nematophorus* based on the morphological characters.

Symphorus nematophorus is morphologically similar to *Symphorichthys spilurus* (Günther, 1874) which inhabits the coastal waters of East Asia because both have the filamentous dorsal rays and blue lines on body side, but the former is easily distinguishable from the latter by having no dark blotch on caudal peduncle (vs. a large dark blotch for *S. spilurus*), a groove or pit between eye and nostrils and snout rounded without interorbital hump (vs. steeply

sloped with a distinct interorbital hump) (Lee, 1987; Shimada, 2002) (Fig. 2). We herein propose a new Korean fish name, “Sil-tung-dom-sok” and “Sil-tung-dom” for genus and species, respectively.

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한국산 통돮과 어류 1미기록종, *Symphorus nematophorus*

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요 약 : 통돮과에 속하는 *Symphorus nematophorus* 1개체 (표준체장 481 mm)가 거제 연안의 정치망에서 처음으로 채집되었다. 이 종은 등지느러미 연조의 앞부분이 길게 연장되어 있고, 눈과 코구멍 사이에 파인 홈이 있으며, 서골에는 이빨이 없고 체측에는 선명한 9개의 파란 줄이 존재한다. 이 미기록종의 속명과 국명은 각각 “실통돮속”과 “실통돮”으로 제안한다.

찾아보기 낱말 : 미기록종, 통돮과, 실통돮, *Symphorus nematophorus*, 거제도