

First Record of the Cook's cardinalfish, *Apogon cookii* (Apogonidae, Perciformes) from Korea

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Two specimens of *Apogon cookii* of the family Apogonidae were collected from the coastal waters of Dokdo, Korea, and described as the first record from Korea. Specimens were caught by SCUBA diving using scoop net (length 33 cm, depth 63 cm) on October, 1997.

The species differs from *A. endekataenia* in having 5 longitudinal stripes and a small black spot on the base of caudal fin. The new Korean name, "Da-seot-jul-eol-ge-bi-neul" as new Korean name of *Apogon cookii*.

Key words : Apogonidae, *Apogon cookii*, Dokdo, first Korean record

Introduction

The Perciform family Apogonidae have nearly 200 species belonging to 26 genera from the Indo-West Pacific (Hayashi, 1990; Nelson, 1994) and approximately 73 species in the coastal waters of Japan. These are found close to ledges of rocky areas or coral reefs during the day (Masuda *et al.*, 1992). In the Korean water, two genera (*Apogon*, *Gymnapogon*) and 13 species have recorded (The Korean Society of Systematic Zoology, 1997; Yi *et al.*, 2000).

During a survey of fish fauna in the coastal area of Dokdo, Korea, we collected two specimens of *Apogon cookii* by SCUBA diving (scoop net : length 33 cm, depth 63 cm) (Fig. 1). In this paper, we describe the species as the first record from Korea waters. Counts and measurements follow those of Nakabo (2002). The examined specimens were deposited at the Marine Resources Laboratory, Korea Ocean Research & Development Institute (MRL KORDI), Korea.

Apogon cookii Macleay, 1881

(New Korean name: Da-seot-jul-eol-ge-bi-neul)
(Fig. 1)

Apogon cookii Macleay, 1881: 344 (type locality:

Endeavour R. and Darnley I., Australia).
Apogon cooki: Carpenter *et al.*, 1997: 150.

Materials examined. MRL KORDI 971016, 2 specimens, 31.3~42.6 mm in standard length (SL), collected by SCUBA diving with a scoop net in Dokdo, Gyeongsangbuk-do, Korea, 15~16 October, 1997.

Description. Dorsal fin rays VII-I, 9; anal fin rays II, 8; pelvic fin rays I, 5; pectoral fin rays 13; caudal fin rays 20.

Proportion as % SL : head length 36.6~37.7%; body depth 32.3~35.2%; preanal length 49.5~55.2%; caudal peduncle length 29.1~29.7%; caudal peduncle depth 13.1~13.6%; eye diameter 13.6~13.7%.

Proportion as % HL, eye diameter 36.4~37.2%; snout length 5.8~6.2%; upper jaw length 15.0~15.7%; caudal peduncle depth 11.1~11.3%.

Body oval shape slightly compressed. Head rounded and mouth large. Third stripe across eye and reach to the spot. A distinct black spot, likewise pupil diameter, on base of caudal fin. A melanopore row on the origin of dorsal soft rays and anal soft rays. Scale small ctenoid.

Body color. Body wholly pale pinkish with a dark-brown vertical bands and spot on the caudal fin base. After preservation, body color was changed to white with brown vertical bands and

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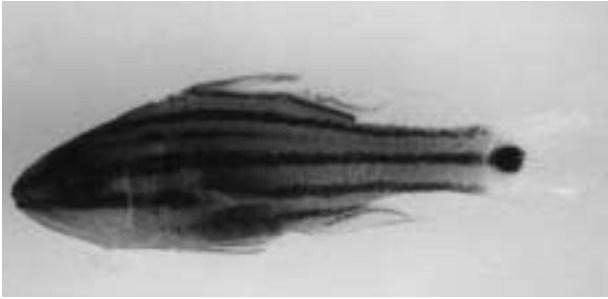


Fig. 1. *Apogon cookii* MRL KORDI 971016, 42.6 mmSL, collected from Dokdo, Gyeongsangbuk-do, Korea.

Table 1. Comparison of meristic characters of *Apogon cookii*

Characters	Present study	Macleay (1881)	Nakabo (2002)
Meristic characters			
Standard length (mm)	31.3~42.6 mm (n=2)		
Dorsal fin rays	VII-I, 9	VII-I, 8	VII-I, 9
Anal fin rays	II, 8	II, 8	II, 8
Pelvic fin rays	I, 5	-	-
Pectoral fin rays	14	-	14
Caudal fin rays	20	-	-
lateral line scales	30	35	27
Gill rakers	2+1+9	-	2+1+9

spot on the caudal fin base (Fig. 1).

Distribution. Indo-West Pacific Ocean, Red Sea and the Gulf of Omen south to Natal, east to the Great Barrier Reef and New Caledonia, and East Sea (Dokdo) and South Sea of Korea (Fraser and Strusaker, 1991; Nelson, 1994).

Remarks. Fishes of the genus *Apogon* are mostly mouth-breeders (Masuda *et al.*, 1980). This species were observed with *Apogon doederleini*, *A. semilineatus*, *A. endekataenia* and *Pomacentrus coelestis* (Myoung, 2002) which were found at the coast of Jeju Island (Myoung, 1997). As this species was observed at Dokdo Isl., we knew that the Tsushima current reached to the coast of Dokdo.

Apogon cookii is easily distinguished from *A. endekataenia*, which is one of the most similar species occurred in the Korean waters, in having 5 longitudinal stripes on body (vs. 7 stripes in the latter), and a small black spot on the base of caudal fin (equal in size to pupil in the former vs.

to eye in the latter).

Because of having vertical 5 stripes on the body, we propose “Da-seot-jul-eol-ge-bi-neul” as a Korean name of *Apogon cookii*.

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독도연안에서 채집된 한국미기록 어종 다섯줄얼게비늘 (국명신칭, 동갈돔과)
*Apogon cookii*에 대하여

명정구 · 조선형 · 박정호 · 김종만

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1997년 10월 경상북도 울릉군 독도연안에서 한국미기록 어종인 동갈돔과 (Apogonidae)의 *Apogon cookii* 2개체를 채집하였다. 이 종은 줄동갈돔 (*A. endekataenia*)과 유사하나 체측의 암갈색 세로띠의 수가 5개이며 꼬리지느러미 기부에 눈의 동공크기의 둥근 흑색반점이 있는 점으로 구별된다. 이 종의 신한국명은 “다섯줄얼게비늘”이라 명명하였다.