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A New Ophichthid Eel, *Ophichthus megalops*, from the Kumano-nada, Japan

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Abstract An ophichthid eel, *Ophichthus megalops* sp. nov., is described from the Kumano-nada, off Owase, Mie Prefecture, Japan. This species is characterized by its large eye, dorsal fin origin far behind the tip of pectoral fin, vertebral number, dentition, and a distinct black smudge on the skin sheath of anal fin near the tip of tail.

During the last several years the author has had an opportunity to be on board the trawl vessel operating off Owase, the Kumano-nada, a valuable fishing ground, in order to collect deep-sea species of apodal fish. Recently the author had an opportunity to collect a specimen referable to the snake eel genus *Ophichthus*, which is here described as a new species.

Methods

All measurements are straight-line, made with dividers. Head length is measured from the tip of snout to the upper margin of the gill opening; trunk length is taken from the end of the head to mid-anus; head depth and width are measured at gill openings, and body depth (not including the median fin) and width at anus. Vertebral counts, which include the hypural, are taken from radiographs.

Ophichthus megalops sp. nov.

(New Japanese name: Medama-umihebi)
(Figs. 1, 2)

Holotype. FAK (Department of Fisheries, Faculty of Agriculture, Kinki University) 19057, 332 mm in total length, caught by a trawl net at about 360 m depth off Owase, Mie Prefecture, by the author on 7 April, 1983.

Diagnosis. A moderate length species of *Ophichthus* with: a large eye; dorsal fin origin far behind the tip of pectoral fin; a distinct black smudge on the skin sheath of the anal fin near the tip of tail; biserial conical teeth on jaws; lateral line pores before the vent 61; and total vertebrae 160.

Description. Pectoral fin rays 14. Lateral line pores 61 before the vent. Total vertebrae 160: predorsal 29; preanal 60 and postanal 100; abdominal 67 and caudal 93. Head 9.10 in total length, and 3.08 in trunk. Head depth 24.06 in total length, and 2.64 in head length. Head width 26.35 in total length. Body depth 26.56 in total length; body width 28.14. Head and trunk 2.24 in total length, and 1.24 in tail. Snout 4.68 in head. Eye 5.38 in head, and 1.15 in snout. Interorbital space 5.53 in head; anterior internasal space 11.77; posterior internasal space 6.64; distance from tip of snout to dorsal fin origin 0.44; pectoral fin 3.09.

Body elongate and subcylindrical, slightly tapering and progressively compressed posteriorly on tail. Tip of tail lacks visible fin rays, rather hard and blunt. Tail moderately long, 1.80 in total length, and longer than head and trunk. Snout moderate in length, with the tip rounded. Eye very large, subequal to the snout length, the upper edge on a level to the dorsal margin of head. Interorbital area flat. Upper lip without free flange. No distinct papilla on the edge of upper lip before and behind the posterior nostril.

Anterior nostril tubular on lateral side of snout. Posterior nostril at the edge of upper lip, covered anteriorly by a semicylindrical flap.

Mouth moderately large, the gape reaches to a vertical slightly behind the posterior margin of eye. Teeth small, conical; biserial in jaws, the outer row teeth smaller and closely set (Fig. 2B). Vomerine teeth biserial anteriorly, in a single row behind mid-shaft, extending to a vertical through the middle of eye. Intermaxillary teeth partly exposed in front of lower jaw, arranged in a semicircular pattern. The tooth patches of maxil-

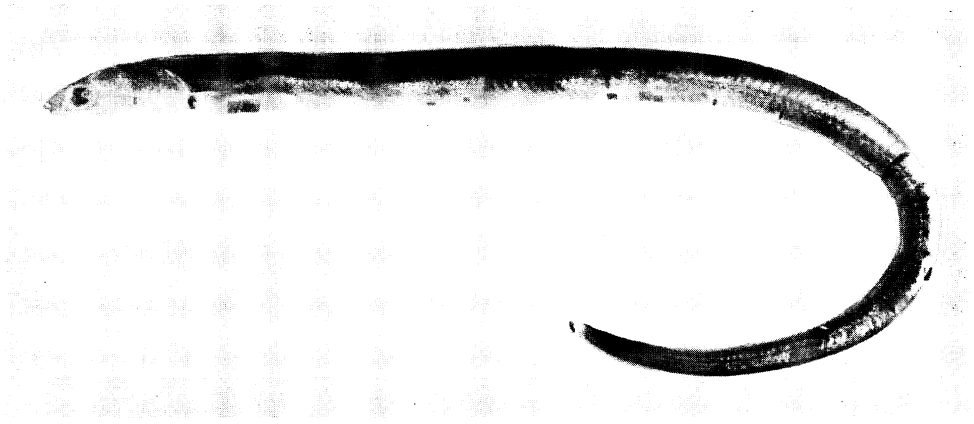

Fig. 1. *Ophichthus megalops* sp. nov., the holotype, FAK 19057, 332 mm TL, the Kumano-nada ,Japan.

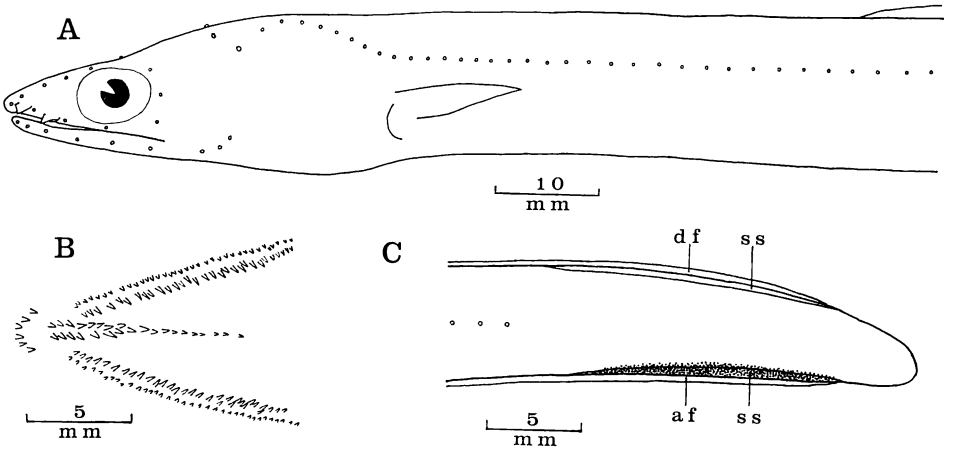

Fig. 2. Cephalic sensory pore pattern (A), dentition of upper jaw (B), and tip of tail (C) of *Ophichthus megalops*, the holotype, FAK 19057, 332 mm TL. af, anal fin; df, dorsal fin; ss, skin sheath.

lary, vomer and intermaxillary are slightly separated from each other.

Sensory pores on head moderate in number, 23 pores in total on side of head inclusive of unpaired interorbital and temporal pores on the top of head (Fig. 2A): 5 on supraorbital, 3 on infraorbital, 3 on postorbital, 6 on mandible, 3 on preopercle, 1 on transverse frontal commissure and 2 on supratemporal commissure (one of which is situated on top of head and the other on the left side of head). Lateral line pores on left side of body 61 before the vent, and 144 in total, though difficult to discern posteriorly, lasting about 1/2 head length before the tip of tail.

Median fins rather low in height, with somewhat elongate rays near the tail tip, where the fins are covered basally by the skin sheath (Fig. 2C) and lie entirely within a swollen groove when laid down. Dorsal fin origin far behind the tip of pectoral fin, by a distance subequal to 3 times pectoral fin length. Pectoral fin rather pointed and moderate in length; the fin base moderate in width, the lower end situated on the lower half of the gill opening. Anal fin begins just behind the anus, ending about 1/2 snout length before the tail tip, almost opposite to the dorsal fin ending. Tip of tail without visible fin rays.

Color in formalin: Upper half of head and body light brown, the lower half rather pale; the tail light brown, with a distinct black smudge on the skin sheath of anal fin near the tip of tail, the black part twice as long as the eye diameter (Fig. 2C). Vertical fins without a dark margin. Anterior nostril pale. The tip of snout and lower

jaw slightly dark. Lateral line pores lie within very minute white spots.

Etymology. The species name *megalops* refers to the remarkably large eye.

Remarks. The ophichthid eels are generally provided with rather small eyes. In *Ophichthus*, however, the following species are known to inhabit deepwater and have relatively large eyes: *O. kunaloa* McCosker, 1979, *O. brachinotopterus* Karrer, 1982, *O. bennettai* McCosker, 1986, *O. hyposagmatus*, *O. omorgmus* McCosker et Böhlke, 1984, and *O. macrops* (Günther, 1910). The new species is closely related to the first three above-mentioned species in appearance, morphometry and the depth of capture. The new species, however, differs in having 3 preopercular pores, which is the generalized ophichthine condition (McCosker, 1977), rather than 2 preopercular pores found in the other species; fewer vertebrae (rather than 181–185 in *kunaloa*, 178 in *brachinotopterus* and 167 in *bennettai*), fewer lateral line pores before the vent (rather than about 64, 65–66 and 63, respectively), and the posterior origin of the dorsal fin (rather than a more anterior dorsal fin origin as in *kunaloa*). Among the Japanese species of *Ophichthus*, the new species is similar to *urolophus* (Temminck et Schlegel, 1842), which differs in having a much smaller eye, more anterior dorsal fin origin, much deeper body, and in lacking a black smudge near the tip of the tail.

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熊野灘産ウミヘビ属魚類の1新種メダマウミヘビ

浅野博利

三重県尾鷲沖の熊野灘（水深約 360 m）から得た1個体の標本に基づき，新種メダマウミヘビ *Ophichthus megalops* を記載した．ウミヘビ属における本種の特徴は，眼が著しく大きく，眼径は吻長にほぼ等しいこと；背鰭が胸鰭の先端よりはるか後方から始まり，その距離は胸鰭長のおよそ3倍であること；尾端近くで臀鰭後端部を収納する鞘状皮ふ隆起の部分に黒色斑があることなどである．

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