A rare ophichthid eel, *Ichthyapus vulturis*,
from Izu Peninsula, Japan
(Pisces: Ophichthidae)

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伊豆半島より得られたウミヘビ科魚類の1稀種
トガリウミヘビ（ウナギ目：ウミヘビ科）

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抄録：伊豆半島よりウミヘビ科魚類の1種トガリウミヘビ2個体が得られた。この種は1993年に
日本から初めて報告され、上記の和名が与えられていたが、標本の記載がなされていなかった。
そこで、今回、この2個体の標本に基づき詳しい記載をおこなった。

Abstract: Two specimens of the ophichthid eel, *Ichthyabus vulturis*, were collected from Izu
Peninsula, Japan. This species was recorded for the first time from Japan in 1993, but was not yet
described on the basis of the Japanese materials. Detailed description on these specimens is given
here.

Key Words: Pisces; Ophichthidae; *Ichthyapus vulturis*; description; Japan.

During the research of the fishes of the Izu Peninsula, the third author collected one specimen
of a finless ophichthid eel belonging to the genus *Ichthyapus* Brisout de Barneville in May 1985.
*Ichthyapus* is known from the all tropical seas of the world and is characterized by having small eye,
anterior nostril without tube and posterior nostril opening inside of mouth; this genus is encompassing
four valid species and several undescribed species (McCosker et al., 1989). The specimen
from the Izu Peninsula was identified with *I. vulturis*. Hatooka (1993) showed a key to the species
of the Ophichthidae from Japan, and included this species in it with a new Japanese name and some
diagnostic characters which were almost the same ones as the genus. Recently Mr. T. Uriu of Izu
Oceanic Park collected another specimen of this species from the same locality as the previous
one. Our specimens show some differences in the meristic characters from those from the other
Indo-Pacific region reported by Randall and McCosker (1975). Therefore, we here describe these
two Japanese specimens of this species in detail.

The methods of measurements and vertebral counts follow Böhlke (1989). Head length (HL)
was measured from the tip of snout to posterior point of gill opening.

Specimens are deposited in Osaka Museum of Natural History (OMNH-P) and Department of
Marine Sciences, University of the Ryukyus (URM-P).

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Fig. 1. *Ichthyapus vulturis*, OMNH-P 5239, 526 mm TL. Photo by Y. Yokota.

(Japanese name: Togari-umihebi)  
(Figs. 1 and 2)


*Caecula* (*Sphagebranchus*) *platyrhyncha* Gosline, 1951: 313, figs.1, 14b and 14d (type-locality, Oahu, Hawaiian Islands).

*Ichthyapus vulturis* : Randall and McCosker, 1975: 6, fig. 3 (Easter Island; Sumatra; Hawaiian Islands; Kure; Palau Islands; Tahiti; Seychelles); McCosker, 1979: 63 (Hawaiian Islands); Myers, 1989: 56 (Belau, Micronesia); Hatooka, 1993: 179 (Izu Oceanic Park, Japan); Randall *et al.*, 1993: 363 (Midway Atoll).


**Diagnosis:** Body depth at anus 46-51 in total length; preanlus length 2.2 - 2.4 in total length; head length 11 - 12 in total length; snout length 6.5 - 6.8 in head length; eye diameter 37 - 41 in head length; total vertebrae 117 - 134.

**Material examined:** URM-P 18281, 459 mm TL (Total length), Izu Oceanic Park, Izu Peninsula, Shizuoka Prefecture, May 1985, Coll. A. Ono. OMNH-P 5239, 526 mm TL, Izu Oceanic Park, July 27 1994, Coll. T. Uriu.

**Description:** Preanlus length 2.27 - 2.37 in TL (42.2 - 44.0 % of TL), head length 11.1 (9.00 - 9.01 %), body depth at anus 45.9 - 50.6 (1.98 - 2.18 %), at gill opening 42.9 - 44.2 (2.26 - 2.33 %). Upper jaw 2.62 - 2.79 in HL (35.8 - 38.2 % of HL), lower jaw 2.94 - 3.75 (26.6 - 34.0 %), snout length 6.45 - 6.8 (14.7 - 15.5 %), eye diameter 36.6 - 41.3 (2.73 - 2.42 %), interorbital width 11.3 - 12.9 (7.75 - 8.82 %), gill opening 7.68 - 8.43 (11.9 - 13.0 %). Body width in body depth at anus 1.00 - 1.04 (96.1 - 100 % of body depth), at gill opening 1.05 - 1.13 (88.2 - 95.3 %). Total vertebrae 129 - 133. Lateral line pores 127 - 131 totally, 52 - 54 before anus.

Body cylindrical and elongated (Fig. 1); tail slightly depressed near its tip and pointed. All fins absent. Anus located in front of midbody and under 51st - 52nd vertebra. Snout pointed, depressed, convex dorsally and flattened ventrally. Mouth large; anterior part of premaxillary tooth row
exposing (Fig. 2c); lower jaw short and included, its tip slightly before posterior nostril. Anterior nostril on lower surface of snout, with a low broad rim, about midway between tips of snout and lower jaw when mouth is closed; posterior nostril with a flap-like rim, inside upper lip, slightly anterior to front margin of eye (Fig. 2c). Eye very small, a little before middle of upper lip. Gill-openings ventral, slit-like cleft with median fold forming a pouch, converging forward, their isthmus narrow, about a half of eye diameter (Fig. 2d).

Cephalic sensory pores conspicuous (Fig. 2a-d). Supraorbital canal with 5 pores; antero-most pore on ventral surface of snout, three ones on dorsal surface of snout, forming a straight line, and postero-most one situated postero-dorsally to eye. Frontal canal with one pore. Infraorbital canal with 7 pores; two antero-most pores between anterior and posterior nostril, and two posterior to eye. Mandibural canal with 4 (left side) pores and 5 (right) in URM-P 18281, 5 (both sides) in OMNH-P 5239. Preopercular canal with 3 pores. Supratemporal canal with 5 pores. Lateral line canal with about 127-131; 53-54 before anus.

Teeth uniserial, conical and sharp (Fig. 2e). A chevron of 8 premaxillary teeth, a short gap, then 12-16 teeth on prevomer. Maxillary teeth uniserial, small close-set, 18-19 on left side and 15-18 on right. Mandibular teeth also uniserial, small close-set, 20-21 on left side and 21-22 on right;

Fig. 2. Head, gill-opening and dentition of *Ichthyapus vulturis*, URM-P 18281, 459mm TL. a, dorsal view; b, lateral view; c, ventral view; d, ventral view of gill-opening; e, dentition.
tooth row on right side with an additional inner tooth in its anterior part.

Color in formalin creamy white.

Distribution: Widely distributed in Indo-Pacific Ocean, from Seychelles Islands to the Hawaiian Islands, and the Easter Island.

Remarks: We follow Randall and McCosker (1975) in synonymizing Caecula platyrhyncha Gosline with Ichthyapus vulturis.

Among the Japanese species of this family, Ichthyapus vulturis is most similar to Apterichthus moseri (Jordan and Snyder, 1901) in having pointed snout and no fins, but can be easily distinguished from the latter in having smaller eye and anterior nostril without tube.

The specimens of Ichthyapus vulturis from the Easter Island differ from those from the other Indo-Pacific collecting sites in the counts of vertebrae (130 - 134 in the former vs. 117 - 127 in the latter) and preopercular pores (3 vs. 3.5 - 4) (Randall and McCosker, 1975). In these characters, the specimens from the Izu Peninsula are similar to those from the Easter Island. The similarity in these two meristic characters between the specimens from the two quite distant sites is interesting for us, but we can not know the reason why at present.

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Literature Cited


