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Uropterygius nagoensis, a New Muraenid Eel from Okinawa, Japan

Kiyotaka Hatooka

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Abstract A new muraenid, *Uropterygius nagoensis* is described on the basis of a specimen collected from Okinawa Island. This species is characterized by having a relatively large mouth and short snout, and gill opening situated dorsally on the side of the body.

During the investigation of Japanese muraenid fishes, I found a specimen referable to the genus *Uropterygius,* which is described as a new species in the present paper.

The specimen was caught together with some individuals of *Gymnothorax fimbriatus* (Bennett), *G. rueppelliae* (McClelland), *G. thyrsoideus* (Richardson), and other commercial fishes by the long line fishing, and landed at the Nago fish market, Okinawa Island. Methods of measurements follow Hatooka and Yoshino (1982). Counts of vertebrae including hypural plate and fin rays were taken from radiographs.

Uropterygius nagoensis sp. nov.
(New Japanese name: Nago-kikai-utsubo)
(Figs. 1–4)

Holotype. FAKU (Department of Fisheries, Faculty of Agriculture, Kyoto University) 51431, 713.0 mm in total length, Nago fish market, Okinawa Island, July 19, 1982.

Diagnosis. Body nearly tubular. Rayed dorsal and anal fins restricted to tip of tail. Mouth large, lower jaw slightly curved upward, not closing completely. Gill opening small, situated dorsally on side of body. Body yellowish or brownish with dark brownish obscure reticulation or vertical bars. Teeth on both jaws sharp and slender, forming 3–4 rows.

Description. In total length (data presented in parentheses are expressed as a percentage of TL): preanus length 2.1 (47.8), head length 9.9 (10.1), trunk length 2.6 (37.8), body depth at anus 22.7 (4.4). In head length (data presented in parentheses are expressed as a percentage of HL): upper jaw length 2.5 (40.6), snout length 7.5 (13.3), eye diameter 14.4 (6.9), fleshy interorbital width 9.9 (10.1), suborbital length 30.3 (3.3), longest caudal fin length 24.0 (4.2).

Abdominal vertebrae 72, caudal vertebrae

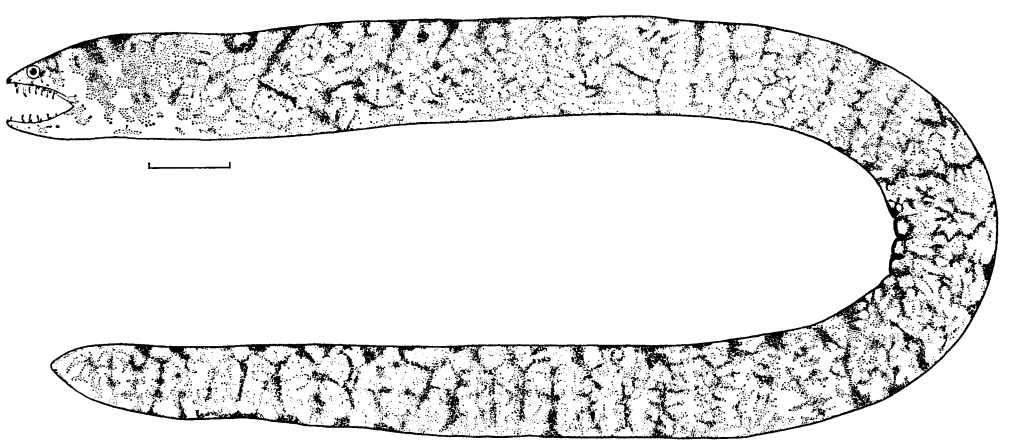

Fig. 1. *Uropterygius nagoensis* sp. nov. Holotype, 713.0 mm TL, FAKU 51431. Bar indicates 30 mm.

Fig. 2. Radiographs of head and end of tail of *Uropterygius nagoensis*. Top, head; bottom, end of tail.

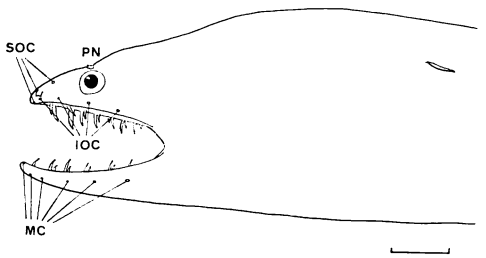

Fig. 3. Head of *Uropterygius nagoensis*. Bar indicates 10 mm. IOC, pores of infraorbital canal; MC, pores of mandibular canal; SOC, pores of supraorbital canal; PN, posterior nostril.

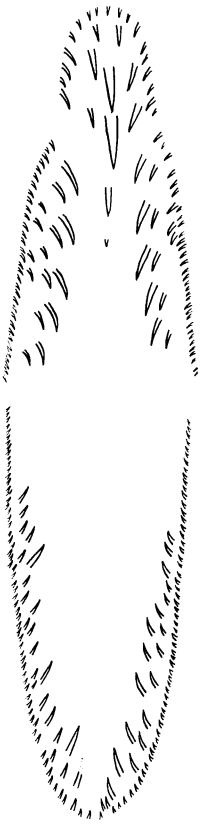

Fig. 4. Dentition of *Uropterygius nagoensis*.

68, anus below 62nd vertebra. Dorsal fin origin above 118th vertebra, number of its rays 58; anal fin origin below 124th vertebra, number of its rays 42.

Body nearly tubular, anteriorly elliptical and posteriorly somewhat compressed. Dorsal and anal fins restricted to end of tail, where they are confluent with short pointed caudal fin (Fig. 2). Anus a little in front of middle of TL. Mouth large, lower jaw slender, slightly curved upward, hyomandibular posteriorly inclined (Fig. 2); upper and lower jaws not closing completely. Snout short and pointed. Eye small, its anterior margin a third closer to tip of snout than rictus of mouth. Gill opening small, slightly larger than eye, situated dorsally on side of body.

Anterior nostril with short tube, on each side of tip of snout, when depressed not reaching to edge of upper lip; posterior nostril with slightly fringed very short tube about as half anterior one, and located above pupil of eye.

Cephalic lateral line system well developed (Fig. 3); on left side supraorbital canal with 3 pores, infraorbital canal with 4 pores, and mandibular canal with 6 pores; on right side infraorbital canal with additional one pore just behind its anteriormost pore; no pore before gill opening.

Teeth on jaws and prevomer, all sharp and slender, arranged as shown in Fig. 4. Mesial part of premaxillary plate with 8 teeth forming irregular three rows, mesial two teeth of these rows largest and tallest; peripheral part of premaxillary plate with smaller 18 teeth placed in a single row. Prevomerine part with 2 teeth, the anterior large, the posterior very minute. There is a gap between mesial teeth of premaxillary plate and prevomerine teeth.

Maxillary teeth in about three rows with an additional row on its middle part, following premaxillary teeth at an interval. Outer row teeth of maxillary very small, close-set, 32 on left side, 33 on right side; five middle row teeth intermediate in size; five inner row teeth largest. Mandibular teeth, anterior three forths in irregular three rows, posteriorly in one row. Outer row teeth of mandibular very small, close-set, about 60; inner two rows tall (their number uncountable, for lower jaw partly broken).

Color in life: Body, anterior one forth yellowish, the remaining posterior part brownish, with dendritic broad dark brownish lines, forming obscure reticulation or vertical bars. Head anteriorly whitish, posteriorly yellowish, with about three obscure saddle-like dark brown bands. Interorbital space with an inconspicuous transverse whitish line. Lower jaw slightly mottled with brown.

Color in 10% formalin: Yellowish color on head and trunk disappears. The other coloration does not change after preservation.

Remarks. *Uropterygius nagoensis* is closely related to *U. supraforatus* (Regan) and *U. fuscoguttatus* Schultz, both of which are known from the tropical Pacific (Regan, 1909; Günther, 1910; Herre, 1923; Schultz et al., 1953; Randall, 1955; Gosline, 1955, 1958; Myers and Shepard, 1980), in having gill opening situated dorsally on side of body and multiserial teeth on both jaws. *U. nagoensis* is, however, distinguished from these species in its rather reticulated coloration instead of their spotted coloration, smaller eye (14.4 in HL instead of 7.4–8.3 in *U. supraforatus*, 9.3–10.3 in *U. fuscoguttatus*), shorter snout (7.5 in HL instead of 5.8–5.9, 5.0–5.6), and shorter upper jaw (2.5 in HL instead of 1.8, 1.9–2.2). Moreover, *U. nagoensis* is distinguished from *U. supraforatus* by fewer teeth rows (3–4 rows instead of 4–5 or broad tooth band).

Etymology. Named after Nago, where the holotype was collected.

Acknowledgments

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(Department of Fisheries, Faculty of Agriculture, Kyoto University, Oiwake-cho, Sakyo-ku, Kyoto 606, Japan)

沖縄本島で採集されたウツボ科の1新種

波戸岡清峰

沖縄本島名護魚市場において，延縄による漁獲物中からウツボ類の1新種を得たので *Uropterygius nagoensis*（新称：ナゴキカイウツボ）としてここに記載した．

本種は垂直鰭が尾端部にのみ存在すること，体側背方に鰓孔を持つこと，頭長に対する上顎長の割合が大きく（40.6%），吻長の割合が小さいこと（13.3%），下顎がいくぶん湾曲し両顎は完全に閉じられないこと，不明瞭な網目状斑紋を持つこと等により他のウツボ科魚類と容易に区別される．

(606 京都市左京区北白川追分町 京都大学農学部水産学教室)