

New, Rare or Uncommon Fishes from Japanese Waters. IV.
Records of Rare Fishes of the Families *Lophotidae*,
Nomeidae and *Icosteidae*

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A. *Eumecichthys fiski* (GÜNTHER) "Tengu-no-tachi"

In February, 1939, an example of 881 mm total length of this species was caught by the staff members of the Kōchi Prefectural Fisheries Experimental Station off Kōchi Prefecture, and this was reported upon by Dr. MATSUBARA (1939). Around October-November, 1937, several examples of this fish were caught by a certain kind of net near Hagi, Yamaguchi Prefecture (southern part of Japan Sea, from which Mr. Ichirō TANAKA collected three specimens. Of these three, one was deposited in his own private museum, one was presented to Koshigahama Primary School, Hagi, and the third specimen was sent to Dr. Shigeho TANAKA. The first specimen just mentioned, 917 mm in total length, was examined and reported upon by Dr. KAMOHARA (1942). Recently the present writer has found a specimen of this fish at the Zoological Institute, Faculty of Science, Tokyo University, which was received by Dr. TANAKA from Yamakoshi Co. The exact data of the specimen are lacking, but it was undoubtedly collected from Japanese waters. The company primarily handled models for medical schools, and occasionally collected and sent rare fishes to Dr. TANAKA.

The specimen sent by Yamakoshi Co. (Cat. No. 47824, Zool. Inst., Fac. Sci., Tokyo Univ.) (fig. 1) measures 752 mm in total length (from the tip of the snout to the tip of the caudal fin) and 728 mm in standard length. The following measurements are given in hundredths of the standard length: Length of head 10.8, length of head measured from the anterior end of the upper jaw to the posterior end of the opercle (=length of head without rostral projection) 6.0, greatest depth of body (at the point a little in advance of posterior end of opercular flap) 3.1, depth of body at middle of body 2.5, depth of body at vent 1.3, depth of body at base of caudal fin 0.7, greatest breadth of body (at posterior margin of eye) 1.3, breadth of body at middle of body 0.7, distance between anterior end of rostral projection and vent 97.1, length of snout (with rostral projection) 6.0, length of snout (exclusive of rostral projection) 1.2, diameter of orbit 1.3, length of upper jaw 1.5, interorbital breadth (above centers of orbits) 1.0, length of 2nd dorsal fin-ray* 6.6, length of dorsal fin-ray above middle of body 3.4, length of longest anal fin-ray 0.2, length of longest caudal fin-ray 3.3, length of longest pectoral fin-ray 1.9.

D. 310; A. ca. 5 (each half of anterior fin-rays seems to be slightly apart from its partner); P. 14 on each side (uppermost fin-ray very short); C. ca. 13 (probably all the fin-rays unbranched; lowermost fin-ray thick and strong).

* The first dorsal fin-ray seems to have been damaged at its tip. The remaining proximal part is strong.

Pseudobranchiae well developed. Branchiostegals 6 on each side; left or right branchiostegal membrane proximally not covering its partner. Gill-rakers 4/1/6 on each side.

The present specimen mostly agrees with the description given by Dr. MATSUBARA of a specimen from off Kōchi Prefecture. In the present specimen the caudal fin is not notched behind, although the membrane between the lowermost long fin-rays of the caudal is much wider than those placed above it. The membranes of the caudal fin are much thicker than those of the other fins. The back is dark brown, crossed by 24 darker vertical bands which lower down to points a little lower than the midway between the dorsal edge of the trunk and the lateral line. Each premaxillary is covered with a band of minute fleshy tubercles, which is bordered externally and laterally by a single row of small conical teeth (covered by membrane, 7 in number) and which is bordered anteriorly by a batch of irregularly arranged, widely separated, much larger curved teeth (6 or 7 in number). Each dentary bears two rather irregular rows of widely separated curved teeth which are basally covered by a membrane.

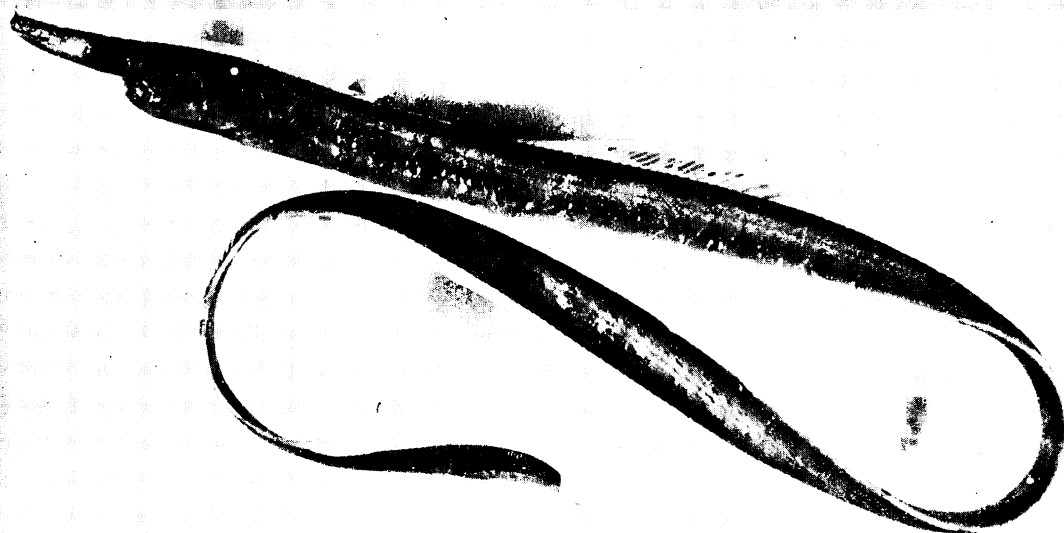


Fig. 1. *Eumecichthys fiski* (GÜNTHER) from Japan. Cat. No. 47824, Zool. Inst. Total length 752 mm.

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B. *Papyrichthys ischanus* (JORDAN and THOMPSON) "Kon-nyaku-aji". Fig. 2

An example of this rare species was collected by Mr. Chikashi NAKAMURA, Kesen-numa, and sent for study to the present writer. It was taken off Ōya-mura (south of Kesen-numa) on June 20, 1952, by a trap net. The total length of the specimen is 191 mm, and the standard length is 156 mm. The following measurements are given in hundredths of the standard length: Greatest depth of body (at base of 1st anal fin-ray) 35.9, greatest breadth of body (at middle point of appressed pectoral fin) 14.1, breadth of body just behind abdominal cavity 8.3, least depth of caudal peduncle 7.1, length of head 28.2, diameter of orbit 6.1, interorbital breadth (above centers of orbits) 9.6, length of snout 9.6, length of highest dorsal fin-ray *ca.* 13.5, length of highest anal fin-ray *ca.* 14.1, length of longest pectoral fin-ray 16.7, length of longest ventral fin-ray 19.2, length of longest caudal fin-ray 23.7.

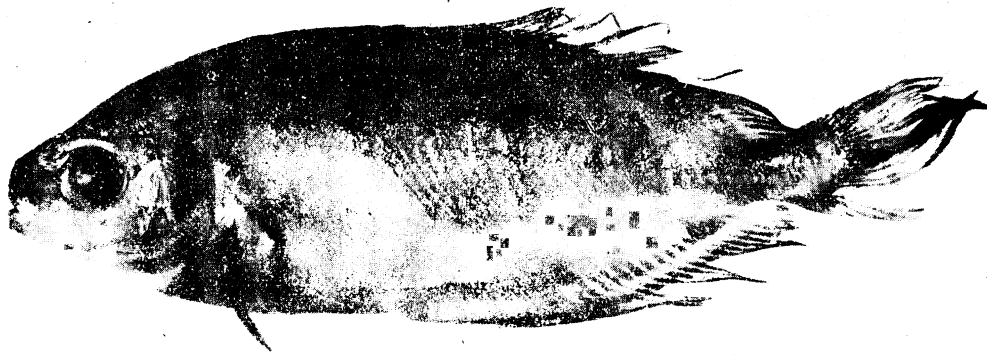


Fig. 2. *Papyrichthys ischanus* (JORDAN and THOMPSON) from off Ōya-mura, northern Japan. Total length 191 mm.

D. XI, 32; A. II or III, 31; P. 19 (left) and 18 (right); V. I, 5 on both sides; C. *ca.* ix/8/7/*ca.* x; total number of vertebrae (examined by X-rays) 41 or 40.

Pseudobranchiae well developed. Gills 4; a slit behind 4th gill-arch. Branchiostegals 6 on both sides; left or right branchiostegal membrane proximally not covering its

partner. Gill-rakers 9/1/15 on both sides. Series of scales from upper angle of gill-opening to caudal base *ca.* 130; those between origin of 2nd dorsal and lateral line 12.

The present specimen well agrees with the description given by JORDAN and THOMPSON with the exception of dentition; palatine and vomerine teeth seem to be absent. The number of the teeth of the upper jaw is 15 on each side; that of the dentary teeth is 26 (left) and *ca.* 23 (right). They have extremely fine serrations as in *P. pellucidus*. The arrangement of the dentary teeth is suggestive of *Tetragonurus*.

The tongue is very broadly rounded, whitish, and slightly concave dorsally. The inner side of the gill-cover is blackish; the palate is slightly dotted with black.

Remarks: This species has hitherto been recorded from Okinawa, Tokyo Bay, off Hagi (Yamaguchi Prefecture) and Southern California*. It is highly probable that *ischanus* represents adult stages of *pellucidus*.

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C. *Icosteus aenigamaticus* LOCKINGTON "Irezumi-kon-nyaku-aji", new Japanese name

i. A specimen from off Ōya-mura (fig. 3). This specimen was collected by Mr. Chikashi NAKAMURA, Chief of the Kesen-numa Branch Station, Miyagi Prefectural Fisheries Experimental Station, Kesen-numa. It was taken by a trap net off Ōya-mura, Miyagi Prefecture, on June 20, 1952. The total length is 258 mm, and the standard length 222 mm. The following measurements are given in hundredths of the standard

* After this paper went to press, another specimen of *P. ischanus* was received from Mr. Kaneo SUGAWARA. It was caught by a boy on July 12, 1953, in a sandy pool in the intertidal zone at Nagaura-machi, Chiba Prefecture (Tokyo Bay). The total length is 200 mm. The color of the body is much darker than in the specimen from Ōya-mura.

length: Greatest depth of body (at hind margin of appressed pectoral fin) 41.0, greatest breadth of body (at pectoral base) 14.9, least depth of caudal peduncle 7.6, length of head 23.4, diameter of orbit 4.1, interorbital breadth (above centers of eye) 11.3, length of snout 7.7, length of longest pectoral fin-ray 12.4, length of longest ventral fin-ray 8.3, length of longest dorsal fin-ray 11.7, length of longest anal fin-ray 11.7, length of longest caudal fin-ray 16.2.

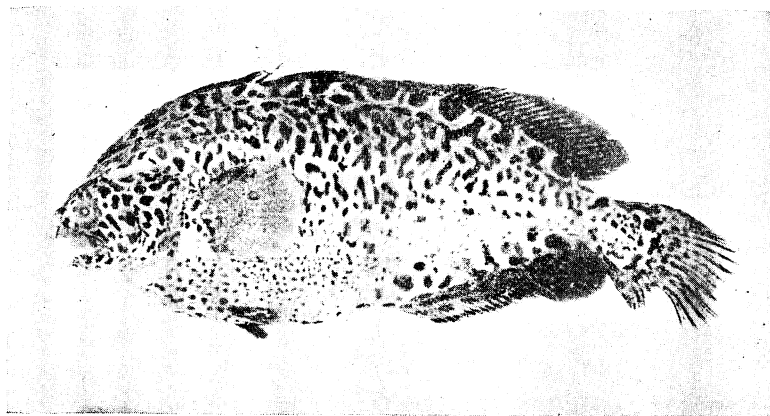


Fig. 3. *Icosteus aenigmaticus* LOCKINGTON from off Ōya-mura, northern Japan. Total length 258 mm.

D. 55; A. 39; P. 21 on both sides; V. 5 on both sides; C. viii/9/8/ix. Pseudobranchiae well developed. Gills 4; a slit behind 4th gill-arch. Branchiostegals 6 on both sides. Gill-rakers on 1st arch 6/1/10 (left) and 6/1/9 (right). Lateral line with 2 rows of small spines.

The present specimen well agrees with the description given by Dr. CLEMENS and Mr. WILBY [1946 (1949)], and it is thought unnecessary to present further account.

ii. *A specimen from Manazuru.* Early in the morning of April 27, 1953, a smaller example of *Icosteus aenigmaticus* was taken by a trap net for *Seriola* and *Trachurus* near Manazuru, Kanagawa Prefecture. Mr. Masaji HIRAI, Manazuru Branch Station, Tokaiku Suisan Kenkyujo, collected the specimen, and presented it to the writer. The surface temperature near the net at 10 a.m. was 15°7 C, and the temperature at 40 m depth was 15°8 C, according to his regular records. The specimen (Cat. No. 9007, ABE) measures 151 mm in total length, and 128 mm in standard length. The black markings of the body are relatively much larger and less numerous, and the posterior half of the body is much thinner than in the specimen from Ōya-mura; otherwise, the former specimen mostly well agrees with the latter specimen.

D. 52; A. ca. 34; P. 20 on both sides; V. 5 on both sides; C. ca. vi/10/8/ca. viii. Pseudobranchiae well developed; gills 4; a slit behind 4th gill-arch; branchiostegals 6 on both sides; gill-rakers on 1st arch 6/1/9 or 10 on right side, ?/1/10 on left side.

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雑 録 Ichthyological Notes

雄と思はれるものが雌に寄生していたオキアンコオ [A record of an adult female with a supposedly parasitic male of *Cryptopsaras couesi* from the Pacific coast of northern Japan]

1953年5月18日頃、宮城縣気仙沼市と青森縣八戸市間の距岸50哩、水深450米以浅の水域で、オキアンコオ（別名イサリアンコオ）*Cryptopsaras couesi* GILL（時々誤つて *Cryptosparas* と書かれた事がある）の雌の成魚が1尾宮城縣本吉郡大島村の底曳船大平丸に依つて漁獲された。此の雌は全長（口を閉じて吻端から尾鰭の上から数えて第4番目の軟条後端迄）435 ㎞、標準体長276 ㎞あり、体の右側、胸鰭基部の下方で腹中線に近い所に全長約15 ㎞、標準体長約12 ㎞の本種の矮雄と思われる魚が頭端を以て癒着している。

オキアンコオを含むミツクリエナガチオオチンアンコオ亞目では矮雄が雌に寄生している例は近年多く知られて来て居り、オキアンコオに極めて近縁のミツクリエナガチオオチンアンコオ *Ceratiopsis mitsukurii* TANAKA ではその一例が相模湾から報告された事がある（採集者は OWSTON 氏、全長440 ㎞、1907年5月採、報告は田事茂雄先生1908年）。然しオキアンコオそのものの本邦からの報告はあるが（大島正満博士、1936年、秋田縣土崎沖産、全長21 ㎞。黒沼勝造博士、1941年、駿河湾戸田沖水深約300米、全長8 ㎞、1940年6月6日採、今井貞彦教授、1942年、駿河湾、ビームトロールで1500米ワイヤーを出して採集、全長2.3 ㎞、1940年10月21日採）、今回のように大形な雌で而かも雄と思はれるものが寄生している例は恐らく本種にとつては初めての事と思はれる。尚上記2種に近縁のもので本邦から報告されているものには、コブアンコオ（新称）*Ceratiopsis carunculatus* GÜNTHER（Challenger 号東京南方から採集）とノオマンアンコオ *Cryptopsaras normani* REGAN et TREWAVAS（今井教授駿河湾から報告）があり、1951年12月28日発行された BERTELSSEN の "The ceratioid fishes" ではミツクリエナガチオオチンアンコオと共に上記のものはすべてオキアンコオと同一種であると見做されている。（阿部宗明・中村捷）