

## New, Rare or Uncommon Fishes from Japanese Waters. VII.

### Notes on the Rare Fishes of the Family *Histioptoridae*.

(Continued from vol. vi, nos. 1/2, p. 39)

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D. XIV 8 (all soft fin-rays branched) in 1 specimen ; XIV 9 (all soft fin-rays branched) in 3 specimens ; XV 8 (all soft fin-rays branched) in 1 specimen ; in all specimens hindmost soft fin-ray bifid to base, and more or less close to penultimate ray.

A. IV 7 in 3 specimens (in 1 specimen only 1st soft fin-ray unbranched ; otherwise soft fin-rays all branched) ; IV 8 (all soft fin-rays branched) in 2 specimens ; in all specimens hindmost soft fin-ray bifid to base, and more or less close to penultimate ray.

P.  $\left\{ \begin{array}{l} 17 (=ii+14+i) \text{ (left)} \\ 17 (=ii+14+i) \text{ (right)} \end{array} \right\}$  in 1 specimen,  $\left\{ \begin{array}{l} 17 (=ii+15) \text{ (left)} \\ 18 (=ii+15+i) \text{ (right)} \end{array} \right\}$  in 1 specimen,  
 $\left\{ \begin{array}{l} 17 (=ii+14+i) \text{ (left)} \\ 17 (=ii+14+i) \text{ (right)} \end{array} \right\}$  in 1 specimen,  $\left\{ \begin{array}{l} 18 (=ii+14+ii) \text{ (left)} \\ 17 (=ii+14+i) \text{ (right)} \end{array} \right\}$  in 1 specimen,  
 $\left\{ \begin{array}{l} 18 (=ii+15+i) \text{ (left)} \\ 18 (=ii+15+i) \text{ (right)} \end{array} \right\}$  in 1 specimen.

V. I 5 (all soft fin-rays branched) in 4 specimens ; the fins damaged in 1 specimen.

Branchiostegals 4+3 (left) and 4+3 (right) in 4 specimens ; 3 (uppermost abnormally branched)+3 (left) and 4+3 (right) in 1 specimen.

Inner fold of branchiostegal membrane of right side laps over the left one in 2 specimens ; inner fold of branchiostegal membrane of left side laps over right one in 2 specimens ; these membranes damaged in 1 specimen.

Number of gill-rakers on 1st arch 7+1+16 (left) and 7+1+17 (right) in 1 specimen ; 6+1+17 (left) and 7+17 (right) in 1 specimen ; 8+1+16 (left) and 7+1+16 (right) in 1 specimen ; 7+1+17 on both sides in 1 specimen ; gill rakers damaged in 1 specimen.

*Notes on an additional example on loan from Mr. T. Masuda.* After the foregoing went to press, an adult example of the present species taken off Amatsu (south-eastern coast of Bōsō Peninsula) has been received on loan from Mr. T. MASUDA (Kominato Marine Station). It was sent to him from the Fishermen's Association at the town of Amatsu for identification. Exact data of the specimen are not available, but, judging from the information from him, it is probable that the fish was taken along with the examples mentioned above. Total length 378 mm, fork length 374 mm, standard length 325 mm. Adult male.

D. XIV 9 (all soft fin-rays branched ; 9th ray bifid to base and slightly closer to 8th than 7th does to 8th. 2nd spine is not on the mid-dorsal line, but slightly left to it ; 3rd

spine is not on the mid-dorsal line, but slightly right to it).

A. IV 8 (all soft fin-rays branched ; 8th ray bifid to base, not close to 7th. Position and direction of 2nd and 3rd spines as in 2nd and 3rd dorsal spines).

P. 17 (=ii+14+i) (left) and 17 (=ii+13+ii) (right) (4th and 5th rays longest).

V. I 5 (all soft fin-rays branched ; excepting for spine, mostly black).

Left branchiostegal membrane laps over the right. Branchiostegals 4+3 on both sides. Gills 4 ; a slit behind 4th. Pseudobranchiae well developed. Gill-rakers short ; their number 7+18 on both sides. Peritoneum black. Posterior margin of operculum smooth. Lower margin of preoperculum finely serrated ; only lower part of hind margin of this bone with slightly rough serrations.

B. *Pseudopentaceros richardsoni* (SMITH) from Hachijō Island (Fig. 1). As stated above (foot-note on p. 35), a fine specimen of this rare species (Cat. No. ABE 10552), collected by Mr. KUSAKARI, has been presented to the writer for study. It was taken near the island, probably by hook and line, in 1952 or 1953. Total length *ca.* 354 mm, fork length *ca.* 340 mm, standard length *ca.* 298 mm.

D. XIV 9 (all soft fin-rays branched ; 9th fin-ray bifid to base, more or less close to 8th fin-ray ; 3rd spine longest, its length 47 mm ; 4th spine seemingly damaged ; hindmost spine longer than penultimate spine as in all specimens mentioned above ; 2nd spine is not on the mid-dorsal spine, but originates slightly from the right of the line ; 3rd spine is on the left side of the mid-dorsal line).

A. IV 7 (all soft fin-rays branched ; 7th fin-ray bifid to base ; more or less close to 6th fin-ray ; 2nd spine originating slightly from the left to the mid-ventral line).

P. 17 (=ii+14+i) (left) and 17 (=ii+15) (right).

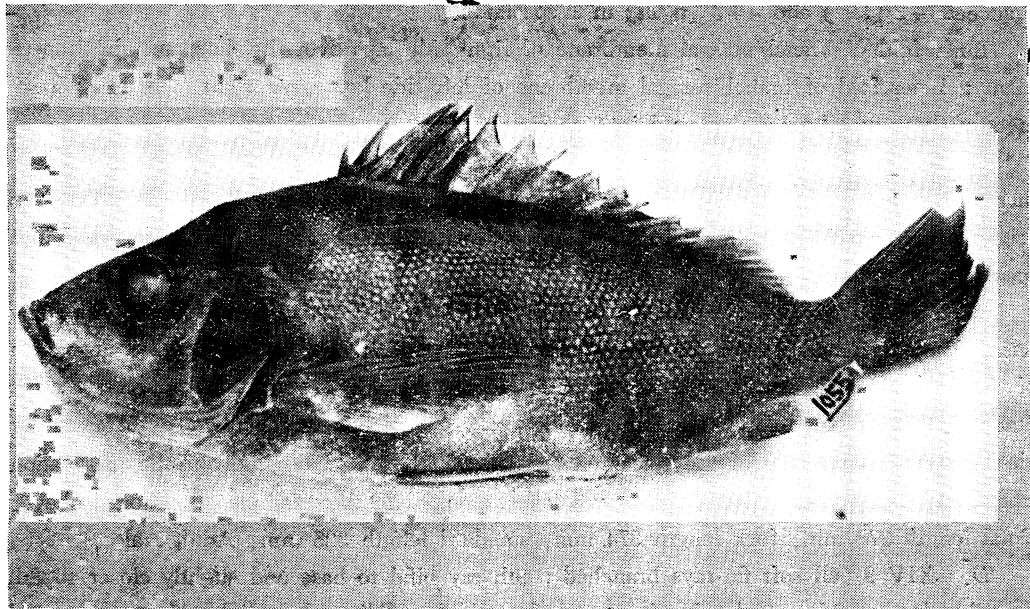


Fig. 1. *Pseudopentaceros richardsoni* (SMITH) from Hachijō I., south of Sagami Bay. Total length *ca.* 354 mm.

V. I 5 (all soft fin-rays branched).

The right branchiostegal membrane laps over the left. Branchiostegals 4+3, on both sides.

C. A young example of "Tsubodai" *Quinquarius japonicus* (DÖDERLEIN) from near Torishima. A fine young example of this species (Cat. No. ABE 10555) was caught in a drifting gill-net for the giant spring flying-fish, *Cypselurus pinnatibarbatulus japonicus* (FRANZ), near Torishima (a small island south of Hachijō Island), in the night, early in March, 1954, and presented to the writer for study by the Ōshima Branch Station, Fisheries Experiment Station of Tokyo Prefecture. He wishes to express here his sincere thanks to the biologists at the station for their co-operation with him. The specimen measures 53 mm in total length, and 45.5 mm in standard length. Length of head 17 mm, greatest depth of body (at dorsal origin) 28 mm, least depth of caudal peduncle 6.7 mm, distance between outer (or anterior) ends of ventral bases 13 mm, horizontal diameter of orbit 5.7 mm on both sides, vertical diameter of orbit 5.7 mm (left) and 5.5 mm (right), interorbital width at anterior ends of orbits 5 mm, interorbital width above eye-centers (including bony projection) ca. 8 mm, length of snout 5.8 mm on both sides.

D. XII 14 (=13+i; 13th and 14th fin-rays close together; 2nd spine originates from left side of mid-dorsal line; 3rd spine originates from right side of mid-dorsal line, and so on).

A. V 10 (all soft fin-rays branched or 9+i; 9th and 10th fin-rays close together), P. 17 (tips damaged) (left) and 17 (uppermost 1 or 2 fin-rays and lowermost 1 or 2 fin-rays unbranched, the other fin-rays branched; 1st fin-ray shorter than 1/2 of length 2nd fin-ray).

V. I 5 (all fin-rays branched) on both sides.

Scales hard, thick, and nearly juxtaposed. Lateral line strongly arched below dorsal spines; there are 3 or 4 scale rows between the top of the arch of lateral line and upper edge of the groove receiving dorsal spines.

Posterior margin of operculum smooth. Preoperculum ventrally with rough denticulations which are the termination of the striae of the bone.

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