Japanese Journal of Ichthyology
Vol. 17, No. 3 September 30, 1970

魚類学雑誌
17巻3号 1970年9月30日

Record of a Rare Bramid Fish, *Taractes raschi* (Esmark) from Northern Japan Sea

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(Received April 27, 1970)

Abstract Two specimens of fish collected in northern Japan Sea were identified *Taractes raschi* (Esmark), with some reservation, and described fully and illustrated. Published accounts by other authors on *T. platycephalus* Matsubara, *T. asper* Lowe, *T. raschi* (Esmark) and *T. steindachneri* (Döderlein) discussed and critisized here made the identification of the species in the genus somewhat ambiguous. Naming of the specimens as titled here was made mainly following Abe (1961–1962). List of synonymy of the species was appended.

Through the courtesy of Mr. Masashi Ohara (Fishery Extension Office in Mashike Region) and Mr. Kenji Shibuya (Wakkanai Fisheries Experiment Station), the author recently could examine two specimens of a rare bramid fish which were identified *Taractes raschi* (Esmark). Both specimens, immature males, were taken from the northern Japan Sea during the winter of 1966 and 1969 respectively. The larger specimen, measuring 441 mm in total length, was captured by a fisherman's hand on the beach of Hontomari in Rishiri Island, on December 5, 1966. This specimen had been preserved in the Wakkanai Fisheries Experiment Station (Fig. 1, top). While, the smaller fish, 391 mm long was captured with a bottom gill-net of flounders in the waters about 5 miles northwest off Mashike on December 22, 1969. This specimen was forwarded to the author's hand for identification just after the capture (Fig. 1, bottom). The measurments, proportional engths of body parts and meristic counts werel given in Table 1.

A Japanese name "Rasch-etchiopia" was proposed to *Taractes raschi* by Dr. Abe in his report on the fishes of the subfamily Braminae (1961–'62), together with a description of the species based upon a single specimen collected at the Tokyo Central Wholesale Market. In the present paper, the author gave a detailed description based on these two specimens in order to give additional informations required in the classification of the species in the genus *Taractes*.

Description

Body compressed, oval but not so deep. The greatest depth measured at the insertion of dorsal fin about 39% of the body length. The dorsal profile of head abruptly elevated just behind the interorbital space, and forming median dorsal keel. Interorbital space slightly convex, the upper profile of snout and ocular regions nearly straight. Caudal peduncle narrow but short, and provided with a weak midlateral keel on each side. Eyes large, more or less elliptical dorso-ventrally; vertical diameter a little larger than the horizontal. Anterior nostril nearly round and the posterior slit-like. The posterior margin of preopercular bones distinctly denticulated (Fig. 2). Mouth oblique, the lower jaw projecting beyond the upper, and with a distinct projection on symphysis. Maxillary widely dilated posteriorly, and its distal end extending to below the middle of eye.

Teeth on jaws canine-like, sharply pointed, arranged in 3 or 4 rows anteriorly and a single row posteriorly on upper jaw; those

Table 1. Measurements and counts of body parts of two specimens of *Taractes raschi* (Esmark) taken from northern Japan Sea.

Localities	Rishiri Island		Mashike	
Date	Dec. 5, 1966		Dec. 22, 1969	
Sex	Male		Male	
Total length (mm)	441		391	
Body length (BL) (mm)	378		330	
Measurements	(mm)	% in BL	(mm)	% in BL
Greatest depth of body	147	38.9	128	38.7
Length of head	115	30.4	98	29.6
Width of body at pectoral base	58	15.4	51	15.4
Depth of caudal peduncle	26	6.9	25	7.6
Length of caudal peduncle	31	8.2	28	8.5
Length of snout	32	8.5	28	8.5
Length of postorbital part of head	50	13.2	43	13.0
Horizontal diameter of eye	30	7.5	26	7.9
Vertical diameter of eye	34	9.0	29	8.8
Width of interorbital space	34	9.0	29	8.8
Length of upper jaw	58	15.4	53	16.1
Length of lower jaw	69	18.3	63	19.1
Longest dorsal fin ray	94	24.8	91	27.6
Longest anal fin ray	81	21.4	78	23.6
Length of pectroral fin	94	24.8	91	27.6
Length of ventral fin	55	14.6	48	14.5
Length of upper lobe of caudal fin	105	27.8	90	27.2
Length of lower lobe of caudal fin	101	26.8	86	26.1
Length of dorsal fin base	189	50.0	172	52.3
Length of anal fin base	136	36.0	130	39.5
Width of pectoral fin base	24	6.4	21	6.9
Width of abdomen at ventral fin bases	27	7.2	24	7.3
Distance from tip of lower jaw to origin of dorsal fin	150	39.8	126	38.2
Distance from tip of lower jaw to origin of ventral fin	128	34.0	112	34.0
Distance between ventral fin and anal fin	90	23.8	76	23.0
Meristic counts				
Dorsal fin	IV. 26		IV. 27	
Anal fin	II. 22		II. 21	
Pectoral fin	18		17	
Ventral fin	I. 5		I. 5	
Lateral line scales	48		47	
Longitudinal rows of scales along the midlateral side of body	43		42	
Branchiostegal rays	7		7	
Gill-rakers on the first gill arch	ii+1+1+6+v		ii+1+1+6+iv	

on lower jaw in double rows, with some aditional smaller ones between those rows in the anterior portion. Some of the outer teeth on both jaws directed slightly outward, and somewhat enlarged as canines. There is a short conical teeth band on palatines. A pair of short teeth present on vomer in the smaller specimen, but the teeth entirely lacking in the larger specimen.

Scales on body vary greatly in size by positions on body. Those on head, belly, back and fins smaller than those on side of

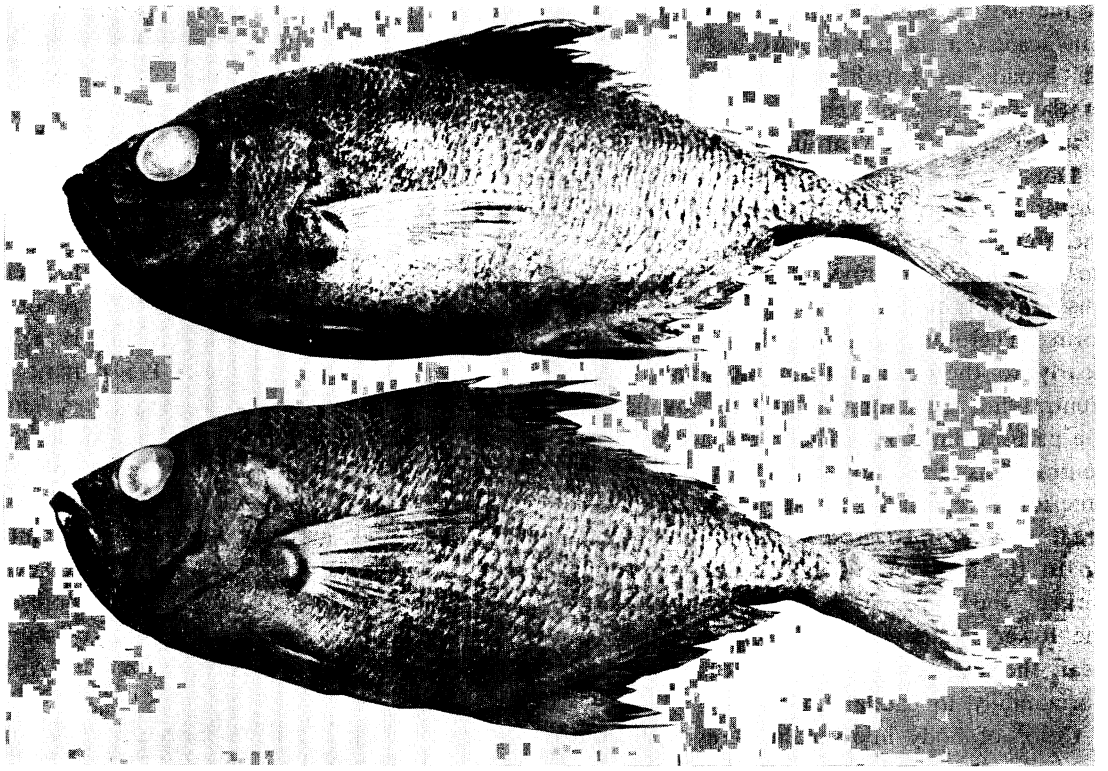

Fig. 1. Two specimens of *Taractes raschi* (Esmark) taken from northern Japan Sea. Top: total length 441 mm, collected at Hontomari, Rishiri Island on December 5, 1966. Bottom: 391 mm, captured off Mashike, Hokkaido on December 22, 1969.

body. where the scales arranged regularly in 15 to 16 longitudinal rows. Large scales on body emarginated posteriorly and armed by a distinct spine and several small radiated ridges. Spines on the scales more prominent in those on the posterior part of body. Five longitudinal rows of spiny scales on each side of caudal peduncle; spines on those scales not enlarged as prominent keels as in *Steinegeria*. Anterior rays of dorsal and anal fins covered with a row of small scales, the row not extending to the tip of rays. Anterior half of caudal fin also covered with many small scales. Side of head, maxillary and circumocular region of head covered densely with large or small scales, but snout, interorbital space, and lower jaw entirely scaleless. No naked (scaleless) area above and before the upper edge of the gill-opening as found in *Steinegeria*. Scaly processes

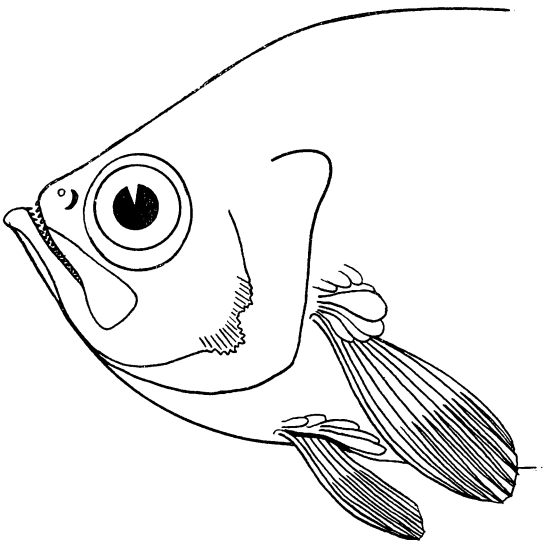

Fig. 2. Anterior part of *Taractes raschi* (Esmark) showing the dentition on posterior margin of preopercle, and scaly axillary processes of pectoral and ventral fins.

at the axil of both pectoral and ventral fins. The scales on the axillary process of pectoral fin broad, its length measuring about 1/4 of the fin; those of ventral fin about a half of the length of the ventral fin (Fig. 2).

Dorsal fin biginning somewhat behind the pectoral fin base. Anal fin inserted below the thirteenth or fourteenth rays of dorsal fin. The anterior rays of dorsal and anal fins much produced, making both fins falciform. Pectoral fin long, the tip reaching nearly to the vertical from the anal origin. Ventral fin originating a little in advance of the pectoral fin base. The interspace between ventral fins flat, horizontal; the abdomen anterior to ventral fins forming a flat triangular area, but forming a weak keel posteriorly up to the anal insertion. Caudal fin deeply forked, the upper lobe slightly longer than the lower. Lateral line descending abruptly near the tip of pectoral fin, then running horizontally to caudal fin base.

Color of body in formalin, greyish brown or dark grey. The vertical fins and the circumocular region black.

Discussion on the specific identity

According to Abe (1961–62), *Taractes platycephalus* Matsubara and *Taractes raschi* (Esmark) may represent, respectively, young and adults stages of *Taractes asper* Lowe, the type species of the genus *Taractes*. In other words, *T. platycephalus* may be a synonym of *T. asper*, and *T. raschi* may also be conspecific with *T. asper*. And also, judging from the diagnostic indications on the species of *Taractes* from some previous papers (Mead, 1957; Mead and Maul, 1958; Abe, 1961–62), *T. platycephalus* differs from *T. raschi* only in toothless vomer; *T. raschi* differs from *T. asper* in lacking a strong hard midlateral keel on each side of the caudal peduncle in the adult.

Concerning with the status of vomerine teeth, the larger specimen at hand shows no trace of teeth on vomer, but the smaller specimen is armed by a pair of short teeth on the bone. In both specimens, the midlateral keels on caudal peduncle are weakly developed, and the scales on midlateral series on caudal peduncle are provided with a distinct spine, but they are not enlarged as shown in *T. asper*. Therefore, the present specimens are to be referable to *T. raschi* or *T. platycephalus* rather than to *T. asper* in view of characteristics of keels on caudal peduncle. Abe (loc. cit.) also suggested that several specimens reported as *T. raschi, T. steindachneri* (Parine, 1958), or *T. longipinnis* (Andriashev, 1954) may be identical with *T. asper* or *T. playtcephalus*. If so, all the specimens which had been recorded from the Japanese waters under the name of *T. platycephalus, T. steindachneri*, and *T. raschi* may probably be represented by a single species eventually. However, the author tentatively identified the present two specimens from the northern Japan Sea with *T. raschi* following to Dr. Abe's interpretation.

Finally, the available records from the waters of Japan and its adjacent regions of the species in the genus *Taractes* are annexed as a source of reference.

Taractes raschi (Esmark).—Abe (1961–62): A single specimen, 560 mm in total and 405 mm in standard length, collected from Tokyo Central Wholeseale Market, on November 21, 1960 (the exact locality is unknown).

Taractes playtycephalus Matsubara.—Matsubara (1936): The type specimen, 230 mm in total length, taken from Sagami Bay, in the spring of 1934.—Katayama (1943): A single specimen, 172 mm in body length, taken from off Tsuiyama in the District of Tajima.—Abe (1961–62): A single specimen, 212 mm in total and 165 mm in standard length, taken by hand-line in the north-western part of Sagami Bay, on May 7,1960.—Honma & Mizusawa (1965): Two specimens. One (540 mm in body length) was taken with a gill-net for rockfishes, at 3 miles off Nou in Niigata Pref., on July 6, 1963. Another one (280 mm in

body length) was taken with a set-net of Ryotsu Bay in Sado Island during the winter of 1959 to 1960.

Taractes steindachneri (Döderlein).—Döderlein (1884): as the type specimen of *Argo steindachneri*, 250 mm in total length, collected in Tokyo (the exact locality is unknown). —Kamohara (1940): Several specimens from 170 to 500 mm in total length, taken from off Tosa.—Okada and Suzuki (1956): A single specimen, 82 mm in total and 70.5 mm in body length, taken from off Owashi in Mie Pref., on November of 1953.—Parin (1958): A single specimen, 530 mm in total and 420 mm in body length, taken from the North Pacific Ocean (45°N.—160°E.), during the summer of 1956.

The author would like to express hereby his tanks to Messrs. Masashi Ohara and Kenji Shibuya for their kindness offering valuable specimens for the examination in the present study.

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北部日本海で獲れたラッシエチオピア (*Taractes raschi* (Esmark)) の記録

上野達治

1966 年及び 1969 年の冬に北海道西岸沖合の利尻島本泊，及び増毛付近で捕獲された 2 標本を検査した結果本種と査定し得た．しかし，Abe (1961–62) が指摘しているように，本種がサガミマンイウオ (*Taractes platycephalus* Matsubara) の成魚である可能性が強く，また大西洋産の *Taractes asper* Lowe と同種であるかも知れない．さらに，これまで日本近海から報告された *Taractes* 属 (*T. raschi, T. platycephalus* 及び *T. steindachneri*) はすべて同一種であろうと考えられるが，ここでは阿部博士の解釈に従って一応独立種として扱った．

(北海道余市町　道立中央水産試験場)