

On Rare or Newly Found Fishes from the Water of Hokkaido (I)

Tatsuji UENO and Koji ABE
(Hokkaido Fisheries Experimental Station)

While examining the fish specimens preserved in the Hokkaido Fisheries Experimental Station, we found many specimens which are believe to be rare or unrecorded from the waters of Hokkaido. We, therefore, intend to give some contributions to the study of fish-fauna of Hokkaido in annotating of those fishes in this series.

Family Myliobatidae

1. *Holorhinus tobije* (BLEEKER) (Fig. 1)

Japanese name: Tobie-ei.

Specimens examined: Two small specimens, 524 and 503 mm long (292 and 282 mm wide respectively), taken at Hakodate (date is unknown).

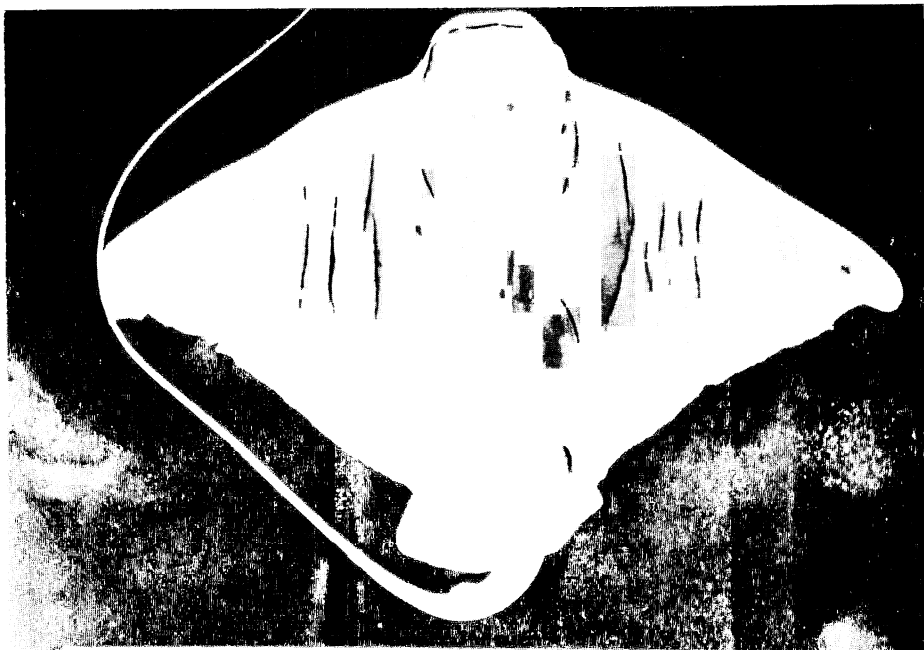


Fig. 1. *Holorhinus tobije*, 524 mm long, from Hakodate.

Disc-length 2.88-3.01 in total length (from tip of snout to distal tip of tail), disc-width 1.77-1.90, length of tail 1.40-1.48, distance from tip of lower jaw to vent 3.62-3.86. Eye 12.0-12.2 in disc-length (17.5 and 17.4 mm respectively), interorbital space 5.10-5.15, snout 5.80-6.05, mouth cleft 4.50-4.60, diameter of spiracle 11.0-11.7, width of base of tail 8.35-9.10, length of spine on tail 8.30-9.00.

Note: JORDAN, TANAKA, & SNYDER (1913) give the geographical distribution of this eagle-ray as Hakodate to Nagasaki, but after that, only a exact record of this species has been given by HIKITA (1952) from off Mombetsu in Hokkaido.

Family Acipenseridae

2. *Acipenser medirostori* AYRES (Fig. 2)

Japanese name: Chyo-zame

Specimens examined: Two specimens were examined. A larger one, 805 mm long

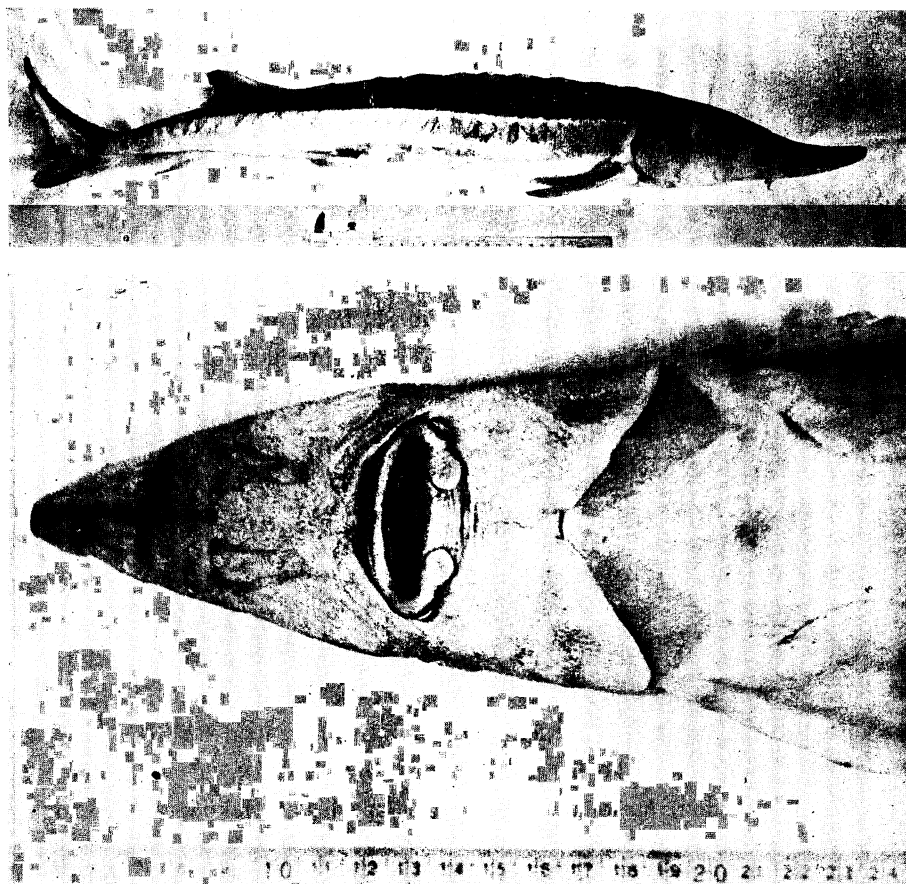


Fig. 2. *Acipenser medirostori*. Lateral view of a larger specimen, 805 mm long, from Konbumori (above), and ventral view of head of a smaller specimen, 535 mm long, from Ishikari-ishihama (below).

(body length is 698 mm) was captured at Konbumori (about 10 km east from Kushiro), in a set-net for salmon, on June 11, 1963. Smaller specimen, 535 mm long (body length is 478 mm) was collected at Ishikari-ishihama near the mouth of Ishikari River, on April 13, 1918.

D. 35-39, A. 26-27, P. 43, V. 30, Dorsal plates 10-11+1 (behind dorsal fin), Lateral plates 28-34, Abdominal plates 6-7+4 (between ventral and anal fins).

Head 3.16-3.40, in body length (from tip of snout to posterior end of the last lateral plate), depth 6.50-7.35, distance from tip of snout to origin of dorsal fin 1.25-1.32, distance from tip of snout to vent 1.45-1.48, distance between origin of pectoral fin and that of ventral fin 2.73-3.00. Eye 18.0-20.1 in head length (206 and 158 mm respectively), snout 1.84-1.85, mouth cleft 3.76, postorbital part of head 2.24-2.55, depth of caudal peduncle 8.80-9.40.

Note: Both specimens in our hands may be referable to a common sturgeon, *Acipenser medirostori* (= *A. mikadoi*). This common sturgeon, however, being rather rare in Hokkaido in recent times. The exact localities known from Hokkaido are as follow: Ishikari River and Teshio River (JORDAN & SNYDER, 1901; JORDAN & SNYDER, 1906; OTAKI, 1907; JORDAN, TANAKA & SNYDER, 1913; OKADA, 1935; SOEDA, 1943), Shikabe (TANAKA, 1913), and Hakodate (SCHMIDT, 1904), etc.

Family Pterothrissidae

3. *Pterothrissus gissu* HILGENDORF

Japanese name: Gisu.

Specimens examined: Two specimens, 477 and 387 mm long, were examined. The former (body length is 427 mm) was taken at Tomari in Shakotan Peninsula, on May 17, 1954. The latter (body length is 337 mm) was captured from off Kushiro, at a depth about 330 m, in a gate-net for shrimps, on July 30, 1963.

D. 61-62, A. 11-12, P. 14-16, V. 10, C. 25 (in all). Lateral line 104-109.

Head 4.50-4.64 in body length, depth 5.70-6.30, distance from tip of snout to origin of dorsal fin 3.39-3.40, distance from tip of snout to vent 1.41-1.32, distance from tip of snout to origin of ventral fin 1.88, distance between origin of ventral fin and that of anal fin 3.50, length of dorsal fin base 1.80-1.89. Eye 3.38-3.68 in head length (92 and 74.8 mm respectively), snout 2.97-3.09, upper jaw 4.40-4.85. interorbital space 4.85-5.06, postorbital part of head 2.36, depth of caudal peduncle 4.15-4.18, length of anal fin base 2.87, length of pectoral fin 1.67, length of ventral fin 2.63.

Note: In "A catalogue of the fishes of Japan" by JORDAN, TANAKA, & SNYDER (1913), they give the distributional range of this species as Hakodate to Suruga Bay. Since following records were given by authors from Hokkaido: Funka (Volcano) Bay (HIKITA, T. H., 1950, 1951; SATO & KOBAYASHI, 1956), Off Muroran (HIKITA, T. J., 1952), Shirikishinai (KOBAYASHI & IKEDA, 1962).

Family Belonidae

4. *Ablennes anastomella* (CUVIER & VALENCIENNES) (Fig. 3)

Japanese name: Datsu.

Specimens examined: Three specimens were examined. Of which two, 266 and 254 mm long, were collected at Tugaru Strait about 3 miles off Cape Shirakamim by a research boat belonging into our station, on Sept. 15, 1955. One larger specimen, 775 mm long (body length is 721 mm) was taken from off Kushiro, by a fishing boat "11th Fuku-ju maru", in a gill-net for mackerel, on July 19, 1963.

D. 17-18, A. 21-23, P. 1. 10, V. 6.

Head 2.90-3.10 in body length, depth 2.22-2.53, width of body 28.0-30.0. Eye 13.0-15.4 in head length, snout 1.50-1.73, lower jaw 1.28-1.50, interorbital space 12.1-14.4, depth of caudal peduncle 16.7-17.2, length of dorsal fin base 1.90-1.97, length of pectoral fin 5.56-6.54.

Note: The distributional range of this species was given by JORDAN, TANAKA & SNYDER (1913) as Hokkaido to Yokohama, but no other exact records has been known up to this time from the waters of Hokkaido.

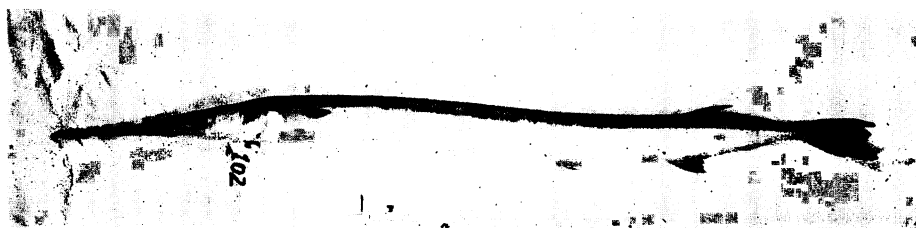


Fig. 3. *Ablennes anastomella*, 775 mm long, from off Kushiro.

Family Fistulariidae

5. *Fistularia villosa* KLUNZINGER

Japanese name: Ao-yagara.

Specimen examined: A single specimen, 344 mm long (body length is 278 mm), taken from Iwanai (date is unknown).

D. 15, A. 13, P. 15, V. 6.

Head 2.60 in body length, depth 30.9. Eye 17.8 in head length (107 mm), snout 1.37, upper jaw 9.75, depth of caudal peduncle 5.35, interorbital space 2.68, length of caudal filament 1.53.

Note: This species have never been reported from the water of Hokkaido.

Family Zeidae

6. *Zeus japonicus* (CUVIER & VALENCIENNES)

Japanese name: Matou-dai.

Specimen examined: A single specimen, 388 mm long, taken at Yoichi, on Oct. 6,

1941.

D. X-23, A. IV-21, P. 13, V.I. 7, Dorsal plates 6, Anal plates 9, Abdominal plates 7, Preventral serration 9.

Head 2.45 in body length (320 mm), depth 2.09, distance from tip of snout to origin of dorsal fin 2.45, distance from tip of snout to origin of ventral fin 2.90, distance from tip of lower jaw to vent 1.07, distance between origin of ventral fin and that of anal fin 3.44. Eye 5.45 in head length (131 mm), snout 2.11, upper jaw 2.14, lower jaw 1.53, interorbital space 6.55, depth of caudal peduncle 4.85, length of the same 5.45, length of pectoral fin 4.37, length of ventral fin 1.74, length of first dorsal fin base 1.37, length of second dorsal fin base 1.37, length of anal fin base 1.02.

Note: This species has only been listed by KOBAYASHI & IKEDA (1962) from Shirikishinai in Hokkaido.

7. *Zenopsis nebulosa* (TEMMINCK & SCHLEGEL)

Japanese name: Kagami-dai.

Specimen examined: A slightly damaged specimen (caudal fin is broken out), ca. 175 mm long (body length is 161.3 mm) was examined. As many as 22 fishes have been caught in a single netting of a gill-net by a research boat "Eiun-maru", at a depth about 30 m, southeast off Yūdō (about 20 miles north from Cape Frimo), on Sept. 30, 1961.

D. IX-27, A. III-25, P. 12, V.I. 5, Dorsal plates 13, Anal plates 8, Abdominal plates 8.

Head 2.66 in body length, depth 1.57. Eye 4.30 in head length (60.5 mm), snout 2.26, upper jaw 2.17, interorbital space 5.45, depth of caudal peduncle 7.95.

Note: In Hokkaido, this species has hitherto been recorded from only southwestern part such as Funka (Volcano) Bay (HIKITA T. H. 1950, 1951; SATO & KOBAYASHI, 1956) and Shirikishinai (KOBAYASHI & IKEDA, 1962). The occurrence of this fish from east of Cape Erimo therefore represents a northward extension in geographical distribution of this species in our waters.

Family Carangidae

8. *Decapterus russellii* (RUPPELL) (Fig. 4)

Japanese name: O-aka-muro.

Specimen examined: A single fine specimen, 300 mm long (body length is 275 mm), was examined. This specimen was taken at 5 miles southeast off Kushiro, in a gill-net for mackerel, on July 21, 1963.

D. VIII-I. 32+1, A. II-I. 24+1, P. 23, V. 6, Caudal scutes 40, Lateral scales before scutes 73.

Head 3.56 in body length, 5.90. Eye 4.32 in head length (77.2 mm), snout 2.93, upper jaw 2.98, interorbital space 4.72, depth of caudal peduncle 10.0.

Each fin with redish color in life, particularly caudal fin is tinged with deep red.

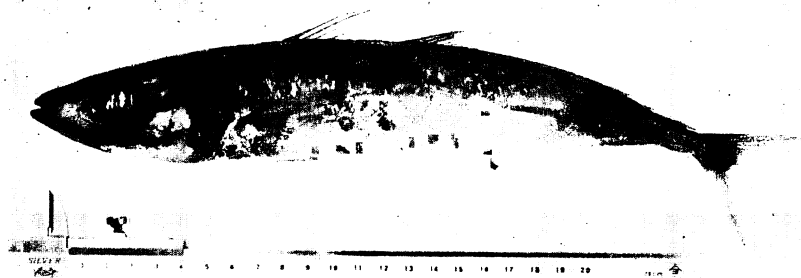


Fig. 4. *Decapterus russellii*, 300 mm long, from off Kushiro.

Note: This species have never been recorded from the waters of Hokkaido as well as from the Pacific coast of northern Japan.

9. *Alectis ciliaris* (BLOCH) (Fig. 5)

Japanese name: Itohiki-aji.

Specimens examined: Three specimens were examined. The largest one, 214 mm long (body length is 175 mm) was captured at Yoichi, on Oct. 27, 1960. Two smaller specimens, 84.3 and 80.4 mm long (body lengths are 72.3 and 65.9 mm respectively) was dipped by a fishing boat at 3.5 miles southwest off Kushiro, on Aug. 13, 1963.

D. VI-VII, I. 18-19, A. I. 16, P. I. 18-19, V. I. 5, Caudal scutes 13-15.

Head 3.50 in body length (175 mm), depth 1.36, length of dorsal fin base 1.94, length of anal fin base 2.06, length of pectoral fin 2.78. Eye 2.94 in head length (50 mm), snout 2.78, interorbital space 2.57, upper jaw 2.38, depth of caudal peduncle 6.25, length of ventral fin 1.09. The longest dorsal ray (4th) about 2 times body length, and the longest anal ray (1st) about 2.6 times in the largest specimen from Yoichi. Head 2.29-2.87 in body length (72.3 and 65.9 mm), depth 0.73-1.01. Eye 2.62-2.64 in head length (25.2 and 24.5 mm), snout 3.26, upper jaw 2.61-2.64, interorbital space 3.00, depth of caudal peduncle 6.8-7.00. The longest dorsal ray about 1.4-1.5 times body length and the longest anal ray about 3.0 times in small two specimens from off Kushiro.

Note: The cobblerfishes has only been known from Funka (Volcano) Bay in Hokkaido (HIKITA, 1950, 1951). The capture of these three specimens at Yoichi and from off Kushiro extends the known range northward and eastward considerable distant.

Family Tetragonuridae

10. *Tetragonurus cuvieri* RISSO (Fig. 6)

Japanese name: Uroko-ibodai.

Specimen Examined: A single specimen, 368 mm long (body length is 331 mm), captured at the front beach of Shizukari where locating interior of Funka Bay, on January 8, 1958.



Fig. 5. *Alectis ciliaris*. Lateral view of a larger specimen, 843 mm long, from off Yoichi (above), and lateral view of a smaller specimen, 84.3 mm long, from off Kushiro (below).

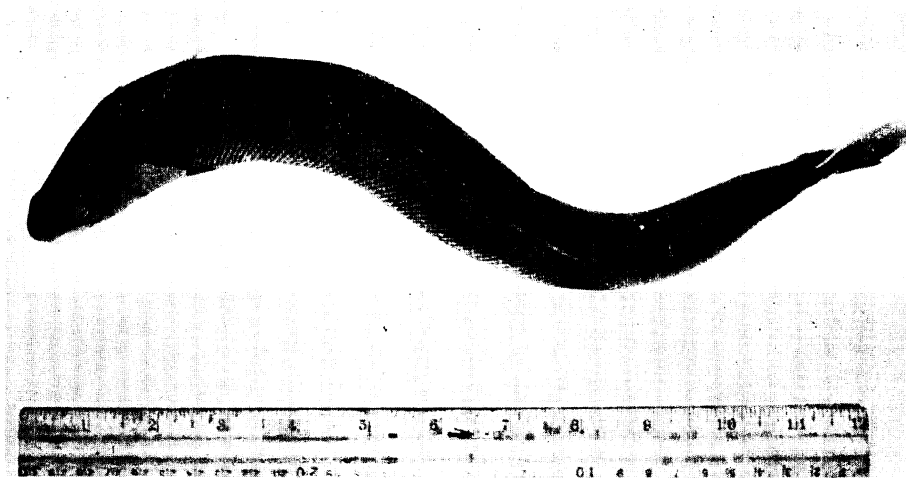


Fig. 6. *Tetragonurus cuvieri*, 368 mm long, from Shizukari.

D. XVI-11, A. VII. 10, P. 16, V. 6, Lateral scales 105.

Head 5.26 in body length, depth, 6.75. Eye 5.25 in head length (63 mm), snout 3.50, interorbital space 3.93, upper jaw 2.74, length of pectoral fin 2.10, depth of ventral fin 4.50.

Note: This species firstly recorded in Japan by KURONUMA (1939) based on a specimen taken from Tateyama Bay. After that, HIKITA (1952) recorded this fish from Funka Bay based upon a preserved specimen in the Oshima Branch Station of Hokkaido Salmon Hatchery. This specimen was caught nearby the mouth of Yurapp River. In 1953, Abe reported this species from Onahama and Manazuru. The present specimen, therefore, is a second one from Funka Bay as well as from Hokkaido.

References

- ABE, T. 1953. New, rare or uncommon fishes from Japanese waters. II. Records of rare fish families Diretmidae, Luvaridae and Tetragonuridae, with an appendix (description of a new species, *Tetragonurus pacificus*, from off the Solomon Islands). Jap. Jour. Ichthyol., 3 (1), pp. 39-47, figs. 1-7.
- HIKITA, T. H. 1950-51. On the fish-fauna of Volcano Bay, Hokkaido. I-II. (in Japanese) Sci. Rept. Hokkaido Fish. Hatchery, 5 (2), pp. 1-13; 6 (1-2), pp. 191-209.
- 1951. Fishes of Volcano Bay in Hokkaido. Jap. Jour. Ichthyol., 1 (5), pp. 306-313.
- 1952. On a specimen of Tetragonuridae captured at Funka Bay. (in Japanese) Fish and Egg, 1952, May, pp. 12-14, 1 fig.
- HIKITA, T. J. 1952. A list of fishes obtained by bottom trawl fishing in the surrounding waters of Hokkaido. (in Japanese) In "Itho Sokouwo Shigen Chyosa (Invest. Bottom-fishes Resource in the seas of northern Japan)", (1), Publ. Hokkaido Regional Fish. Res. Lab., pp. 58-72.
- JORDAN, D. S. and SNYDER, J. O. 1901. Description of nine new species of fishes contained in Museum of Japan. Jour. Coll. Sci. Imp. Univ. Tokyo, 1901, 15, pp. 301-311, pls. 1-2.
- 1906. A synopsis of the sturgeons (Acipenseridae) of Japan. Proc. U.S. Nat. Mus., 30 (1455), pp. 396-398.

- , TANAKA, S. and SNYDER, J. O. 1913. A catalogue of the fishes of Japan. Jour. Coll. Sci. Imp. Univ. Tokyo, 1913, 33, Art. 1, pp. 1-497, figs. 1-396.
- KOBAYASHI, K. and IKEDA, T. 1962. Ichthyofauna of the marine waters adjacent to Shirikishinai in southern Hokkaido, Japan. (in Japanese with English Summary) Fauna and flora of the sea around the Shirikishinai Marine Station, (4). Rept. Shirikishinai Marine Biol. St. Hokkaido Gakugei Univ., pp. 1-21.
- KURONUMA, K. 1939. A record of *Tetragonurus cuvieri* Risso from Japan. Bull. Biogeograph. Soci. Japan, 9 (12), pp. 201-206, pls. 6-7.
- MATSUBARA, K. 1955. Fish morphology and hierarchy. Part I-III. 1605 pp., 536 text figs., 135 pls. Tokyo.
- OKADA, S. 1935. On the freshwater fishes of Hokkaido. (in Japanese) Sake-masu-iho (Miscell. Rept. Salmon and Trout), 7 (27), pp. 1-5.
- OTAKI, K. 1907. The common sturgeon of Hokkaido. Trans. Sapporo Nat. Hist. Soc., 2, pp. 79-84.
- SATO, S. and KOBAYASHI, K. 1956. The bottom fishes of Volcano Bay, Hokkaido. I. A taxonomic study. Bull. Hokkaido Regional Fish. Res. Lab., (13), pp. 1-19, figs. 1-12.
- SCHMIDT, P. 1904. Pisces marium orientarium imperii rossici. St. Petersburg, xi+466 pp., 31 figs., 6 pls.
- SOEDA, J. 1943. A list of fish specimens preserved in the Hokkaido Fish Hatchery. (in Japanese) Sake-masu-iho (Miscell. Rept. Salmon and Trout), (43), pp. 38-44.
- TANAKA, S. 1913. On a sturgeon captured at Shikabe, near Hakodate, Hokkaido. (in Japanese) Gyoruigaku-zashi (Jour. Ichthyol. Japan.), 1 (3), p. 65.
- UENO, T. 1965. The stromateid fishes (Suborder Stromateoidei) captured from the waters of Hokkaido. (in Japanese with English Summary) Sci. Rept. Hokkaido Fish. Experi. St., (4), pp. 1-12, figs. 1-6.
- , 1965. The fishes from the waters of Hokkaido. 5. Horse-mackerels, Yellow-tail, and Dolphin. (in Japanese) Hokuuishi Geppo (Monthly report from the Hokkaido Fisheries Experimental Station) 22 (6), pp. 2-7, figs. 1-3.
- , 1965. The fishes from the waters of Hokkaido. 6. Needlefishes, Saury, and Flying-fishes. (in Japanese) *Ibid.* 22 (7), pp. 2-7, figs. 1-3.
- , 1965. The fishes from the waters of Hokkaido. 9. Stingrays, Eagle-rays, and Ratfishes. (in Japanese) *Ibid.* 22 (10), pp. 1-10, figs. 1-3.