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Supplementary Notes on the Fishes from Akkeshi Bay¹⁾

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(With 3 Textfigures)

In his previous note ('37) the author has reported a general survey of the ichthyofauna of Akkeshi Bay, including 99 species of fishes. From the further investigation he is now able to add 13 more species, of which 11 are rather rare in the adjacent waters. Of them 3 were left undecided in the previous note. With regard to the geographical distribution of these fishes, 5 are southern forms, 7 are northern and 1 is found in deep waters throughout Japan.

Here the author wishes to express his thanks to Dr. T. Inukai, Hokkaido Imperial University, under whose helpful advice and criticism this work has been done. He is also indebted to Dr. T. Uchida, Director of the Akkeshi Marine Biological Station, for his kind criticism.

Family Petromyzontidae

1. *Lampetra japonica japonica* (MARTENS)

Nom. Jap. Kawa-yatsume

Single specimen offered by Mr. K. Yamamoto, measuring 173 mm in total length, obtained by a set-net prepared for *Salangichthys microdon* in the lake, on May 4th, 1938. Rather rare.

Distrib.—Northern part of Japan proper; Korea, Hokkaido; Saghalien; Kamchatka; Amur.

1) Contribution from the Akkeshi Marine Biological Station, No. 30.

Family Carangidae

2. *Trachurus japonicus* (TEM. & SCHL.)*Nom. Jap. Ma-aji*

Rather rarely found in the bay in summer. Thirteen specimens, measuring 45–62 mm in total length, obtained by a seine-net on Aug. 30th, 1937. Observation on the largest specimen, 62 mm in total length, is as follows; D. VIII, I–28. A. II, I–23. Scales 72. Teeth, one or two series on lower jaw, narrow band on upper jaw, and also in vomer and palatine.

Distrib.—Southern area of Japanese waters; Korea.

Family Scombroidae

3. *Scombroops hoops* (HOUTTYUN)*Nom. Jap. Mutsu*

Rather rare in the bay. Two specimens, measuring 100–101 mm in total length, obtained by a seine-net on Sep. 7th, 1937.

D. IX–I, 13, A. III, 11–12 L. L. 53

Distrib.—Southern area of Japanese waters.

Family Girellidae

4. *Girella punctata* GRAY*Nom. Jap. Mejina*

Rather scarce. Two specimens, measuring 65–80 mm in total length obtained in the bay by a seine-net in June, 1937.

D. XIV–XV, 12–13 A. III, 11–12 L. L. 53

Distrib.—Southern area of Japanese waters, from northern part of Honshu south to Formosa.

Family Ostraciidae

5. *Ostracion immaculatum* (TEM. & SCHL.)*Nom. Jap. Hako-fugu*

Rarely found in the bay. Single young specimen, measuring 20 mm in total length, offered from the Akkeshi Marine Biological Station.

Distrib.—Southern area of Japanese waters; Korea.

6. *Sphaeroides borealis* JORDAN & SNYDER

Nom. Jap. Ôshu-fugu

Rather scarcely found in the bay. Three specimens, measuring 57–68 mm in total length, obtained by a seine-net on Jun. 9th, 1939.

Distrib.—Northern area of Japanese waters, from Hokkaido south to Matsushima.

Family Scorpaenidae

7. *Sebastes taczanowskii* (STEINDACHNER)

Nom. Jap. Ezo-mebaru

Sebastes taczanowskii: STEINDACHNER, Sitzb. Acad. Wiss. Wien., 1880, p. 256, pl. 2, fig. 1.

Sebastes taczanowskii: JORDAN & GILBERT, Rept. U. S. Fur Seal Comm., 3. 1898. p. 447; JORDAN & EVERMANN, Fish N. M. America, 2. 1898. p. 1831; JORDAN & STARKS, Proc. U. S. Nat. Mus., 27, 1904. p. 98.

Single specimen offered by Mr. Y. Ueda, measuring 225 mm in total length, obtained by a line on Sep. 7th, 1937.

D. XIII, 15 V. I, 5 A. III, 8 P. 16 L. L. 47

Head 3.06 in body length without caudal (190 mm); depth 3.11. Eye 4.13 in head; snout 2.07; interorbital space 3.62; Maxillary 2.21.

The specimen almost completely coincides with the description given by Jordan & Evermann ('04). Color of body in formalin; warm brown above and on sides, 3 obscure shadings of dark brown on upper part of sides; opercles with a dusky shade; no dark streak on head; fins brown, dorsal, anal, ventral and caudal with black shade on distal portion; no dark streak along each side of floor of mouth anteriorly.

Distrib.—Bays of the Gulf of Stuetok, Japan Sea; Aomori; Same; Otaru; Iwanai; Muroran; Akkeshi Bay; Shana, Iturup Island.

Family Hexagrammidae

8. *Hexagrammos stelleri* TILESIIUS*Nom. Jap. Ezo-ainame*

Hexagrammos stelleri:* TILESIIUS, Mem. Acad. St. Petrsb., 2. 1809, p. 335; JORDAN & EVERMANN, Fish N. M. America, 2. 1898. p. 1871; JORDAN & GILBERT, Rept. U. S. Fur Seal Comm., 3. 1898. p. 448; SCHMIDT, Pisc. Mari. Orien., 1904. p. 74; EVERMANN & GOLDSBOROUGH, Bull. Bur. Fish. Comm., 30. 1912. p. 36; SOLDATOV & LINDBERG, Bull. Pacif. Sci. Fish. Inst., 5. 1930. p. 161.

This species has not been reported frequently from coastal waters of Hokkaido, excepting from Nemuro by Schmidt ('04). In Akkeshi Bay this is rather common, but not abundant. Thirteen specimens, measuring 130–309 mm in total length, collected from July, 1933 to June, 1937. (Fig. 1.)

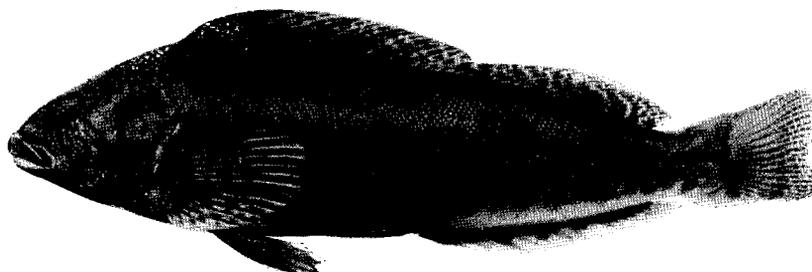


Fig. 1. *Hexagrammos stelleri* TILESIIUS, 276mm.

D. XXI-XXIV, 20-23 A. 20-25 P. 18-20 V. 6

Head 3.67–4.39 in body length without caudal (112–275 mm); depth of body 3.35–5.30. Snout 2.76–3.72 in head; eye 4.20–5.75; maxillary 2.67–3.46; depth of caudal peduncle 2.90–4.46; interorbital space 3.45–4.40; longest dorsal spine 2.10–2.40; longest dorsal ray 1.73–1.80; longest anal ray 2.50–3.30; longest ventral ray 1.73–1.80; longest pectoral ray 1.20–1.90. Number of scales along the middle lateral line 96–110; transversally from front of anal upwards and forwards 47–56; commonly 8–9 in an oblique series between 3rd and 2nd lateral line.

The work marked with an asterisk * was not accessible to the writer.

Among five lateral lines, first and fourth very short and variable, the former running to 3rd-15th spine of dorsal, not reaching to soft dorsal. The fourth not forked, extending to base of ventrals or to middle of them, sometimes unequal extension found on each side. The fifth forks at a point nearer to base than to tip of ventrals, its distance from base of ventrals $1/5-1/2$ the distance from base to beginning of anal.

Distrib.—San Francisco; Cape Mendocino; Puget Sound; Sitka; Kadiak Island; Bristol Bay; Bering Island; Avatcha Bay; Petropavlovsk; Nemuro; Aniva Bay; Akkeshi Bay.

Family Echeneididae

9. *Echeneis nubifera* TANAKA

Nom. Jap. Kumo-koban

Very rarely found in the bay. Single specimen 86 mm in total length offered from the Akkeshi Marine Biological Station.

D. VIII, 21 A. 21 V. 6

Remarks: In the writer's previous note ('37) described as *Echeneis* sp. (No. 66).

Distrib.—Sagami Bay; Akkeshi Bay.

Family Ammodytidae

10. *Hypoptychus dybowskii* STEINDACHNER

Nom. Jap. Shiwa-ikanago

Hypoptychus dybowskii: STEINDACHNER, Sitzb. Acad. Wiss. Wien., 80, 1879 (1880) s. 257, pl. 2, fig. 2; SCHMIDT, Pisc. Mari. Orien, 1904, p. 210; JORDAN & HUBBS, Mem. Carn. Mus., 10, 1925, p. 324; JORDAN & TANAKA, Anal. Carn. Mus., 17, 1927, p. 391.

Not very abundant, however, frequently found in the bay. Six specimens, measuring 77-96 mm in total length, collected on May 31st, 1937. (Fig. 2.)

D. 20 A. 20 P. 9 Br. 4.

Head 4.26–4.52 in length without caudal (67–81 mm); depth of body 6.75–8.62. Snout 3.16–3.75 in head; eye 3.75–4.75; inter-

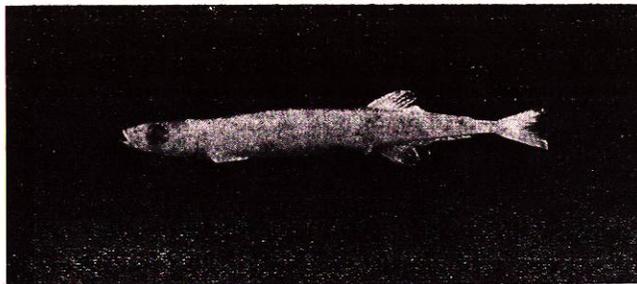


Fig. 2. *Hypotyichus dybowskii* STEINDACHNER, 80mm.

orbital space 4.75–6.33; depth of caudal peduncle 6.00–9.50. These specimens nearly agree with the description and figures given by Steindachner (1880) and Jordan & Tanaka (1927).

Distrib.—Bays of Majen, Snydyien, Rasboined, Abrek near Vladivostok; Miyazu, Sizu-ura (Japan Sea); Maoka (Gulf of Tartary); Aniva Bay (Ochotsk Sea); Muroran and Akkeshi Bay (Pacific coast).

Family Bathymasteridae

11. *Bathymaster caeruleofaciatus* GILBERT & BURKE

Single specimen, measuring 225 mm in total length, obtained from the bay, in July, 1937.

Distrib.—Agattu Island and Petrel Bank, Aleutian Chain; Mendi and Bering Island; Akkeshi Bay.

Family Gadidae

12. *Physiculus japonicus* HILGENDORF

Nom. Jap. Chigo-dara

Physiculus japonicus:* HILGENDORF, Ges. Nat. Fr. Berlin, 1879. p. 80; JORDAN & HUBBS, Mem. Carn. Mus., 10, 2, 1925. p. 326; SCHMIDT, Trans. Pacif. Comm. Acad. Sci. USSR, 2, 1931. p. 153.

The work marked with an asterisk * was not accessible to the writer.

Single specimen, measuring 315 mm in total length, collected by Mr. Y. Ueda on Sept. 27th, 1937, in ca 15–20 meters depth in the bay near Daikoku Island.

D. 8, 64 A. 68 P. 22.

Head 4.67 in body length without caudal (290 mm); depth 4.32; distance from tip of snout to the beginning of the anal fin 2.95; length of base of anal fin 3.33. Eye 4.70 in head; interorbital space 3.10; snout 4.42; depth of caudal peduncle 6.2; length of pectoral 1.63; length of ventral 1.67; length of the 1st ray of the 1st dorsal 3.87; length of barbel 5.17. Gill-rakers of the 1st gill arch short and 3 + 8 in number in outside, and 3 + 11 in inside.

The specimen obtained in Kagoshima and described by Schmidt ('31), is different from the specimen at hand, which has larger head, shorter snout, narrower interorbital space and shorter 1st ray of the 1st dorsal.

Distrib.—Kagoshima; Kochi; Shizuoka; Misaki; Enoshima; Yokohama; Hakodate; Akkeshi Bay.

13. *Antimora microlepis* BEAN

Nom. Jap. Kanada-dara

Antimora microlepis: BEAN, Proc. U. S. Nat. Mus., 13, 1890. p. 38;

SCHMIDT, Trans. Pacif. Com. Acad. Sci. USSR, 2, 1931, p. 151, fig. 30.

Single specimen, measuring 498 mm in total length, obtained by a long-line prepared for *Gadus macrocephalus* in ca. 150–200 meters depth, off the bay, in Feb., 1935. (Fig. 3.)

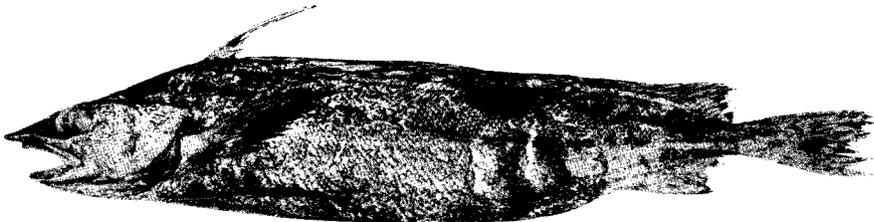


Fig. 3. *Antimora microlepis* BEAN, 498mm.

D.4, 51 A. 37 V. 6 P. 19

Head 3.70 in body length without caudal (430 mm); depth of body 4.72. Eye 3.86 in head; snout 3.51; interorbital space 4.64; the 1st ray of the 1st dorsal 1.35; ventral 1.56; pectoral 1.38.

The specimen nearly coincides with the specimens described by Bean ('90) and by Schmidt ('31) but different from the former in smaller depth of the body and smaller number of anal rays, and from the latter in shorter head, shorter 1st ray of the 1st dorsal, longer ventrals and smaller number of anal rays, owing surely to individual variation.

Distrib.—Queen Charlotte Islands; Misaki; Akkeshi Bay.

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