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Errata

Explanation of Plate (p. 204)

For	A	read	B
"	B	"	C
"	C	"	A
"	D	"	F
"	E	"	D
"	F	"	E

BEITRAG ZUR KENNTNIS DER JAPANISCHEN AULACIDEN (HYM.)

VON

TOICHI UCHIDA

(Mit 2 Figuren)



Zuerst im Jahre 1841 wurde eine interessante Familie Aulacidae von Hymenopteren von W. E. SHUCKARD¹⁾ begründet; während noch später im Jahre 1887 P. CAMERON²⁾ sie in der Familie *Evaniidae* als eine Unterfamilie eingeführt hat, seitdem haben die anderen Hymenopterologen, wie A. CRESSON, A. KIEFFER, DALLA TORRE, u. s. w., die CAMERON'sche Ansicht angenommen. In neuerer Zeit habe A. HANDLIRSCH³⁾ und auch O. SCHMIEDEKNECHT sie jedoch als eine unabhängige Familie wie SHUCKARD behandelt; ich glaube auch, dass *Aulacidae* aus *Evaniidae* durch die biologische und morphologische Verschiedenheit zu trennen natürlich ist, deshalb habe ich hier die alte Familie *Evaniidae* als eine Superfamilie *Evaniidea* behandelt und diese Superfamilie in den folgenden 3 Familien geteilt:

Superfamilie *Evaniidea* $\left\{ \begin{array}{l} \textit{Evaniidae} \\ \textit{Gasteruptionidae} \\ \textit{Aulacidae} \end{array} \right.$

Die Arten der Aulaciden verbreiten über ganze Erdteile, aber bis heute sind sie aus Japan noch nicht bekannt, mit Ausnahme der von G. ENDERLEIN⁴⁾ aus Formosa beschriebenen folgenden 3 Arten, welche von H. SAUTER gesammelt wurden: *Pristaulacus comptipennis*, *P. rufipes* und *P. Kiefferi*. Da aber ich eine noch nicht bekannte Art und 2 neue Arten in Japan aufgefunden habe, so möchte ich im vorliegenden Beitrag sie veröffentlichen.

Fam. AULACIDAE SHUCKARD

Aulacidae SHUCKARD, Entomolog., Vol. I, p. 121 (1841).

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- 1) SHUCKARD: Entomologist, Vol. I, p. 121 (1841).
 - 2) CAMERON: Biolog. Centr.-Amer., Hym., Vol. I, p. 422 (1887).
 - 3) HANDLIRSCH: Hand. Entomolog., Bd. III (1912-1925).
 - 4) SCHMIEDEKNECHT: Hym. Mitteleuropas, ed. 2 (1930).
 - 5) ENDERLEIN: Ent. Mitt., Bd. I, pp. 265-267 (1912).

[Transact. Sapporo Nat. Hist. Soc., Vol. XII, Pt. 4, December, 1932]

Aulacinae CAMERON, Biolog. Centr.-Amer., Hym., Vol. I, p. 422 (1887).

Bestimmungstabelle der in Japan vorkommenden Gattungen

Klauen mit nur einem Zahn. Hinterhüften des Weibchens mit einem zahnartigen Fortsatz an der Mittelseite *Aulacus* JUR.
 Klauen mit 4 Zähnen. Hinterhüften des Weibchens ohne Fortsatz
 *Pristaulacus* KIEFF.

Gatt. *Aulacus* JUR.

Aulacus JURINE, Nouv. Meth. Hym., p. 89 (1807).

Aulacosetellus PHILIPPI, Stett. Ent. Zeitg., Vol. 34, p. 302 (1873).

Aulacus striatus JUR.

Aulacus striatus JURINE, Nouv. Meth. Hym., p. 90, ♀ (1807); RATZBURG, Ichn. Forstinsect., III., p. 22, ♀ ♂ (1852); DALLA TORRE, Cat. Hym., Vol. III, 2, p. 1063 (1902); KIEFFER, Tierreich, p. 371 (1912).

Aulacus arcticus DAHLBOM, Isis, p. 175, ♀ ♂ (1837).

Aulacus exaratus GIRAUD, Verh. Ges. Wien, Vol. 4, p. 605, ♀ ♂ (1850).

Fundort: Sachalin (Toyohara); nur ein ♀ Exemplar wurde am 14. VIII, 1914 von J. ADACHI und S. ISSIKI gesammelt, das Männchen noch nicht aufgefunden. Diese Art ist ziemlich häufig in Europa.

Gatt. *Pristaulacus* KIEFFER

Pristaulacus KIEFFER, Ann. Soc. Ent. Fr., Vol. 68, p. 813 (1900).

Deraiodontus BRADLY, Trans. Amer. Ent. Soc., Vol. 27, p. 321 (1901).

Oleisoprister BRADLY, l. c., p. 324 (1901).

Neaulacus BRADLY, l. c., Vol. 34, p. 121 (1908).

Psi'aulacus KIEFFER, Bull. Soc. Ent. Fr., p. 350 (1910).

Bestimmungstabelle der in Japan vorkommenden Arten

Schwarz. Flügel mit einem schwärzlichbraunen Fleck unter dem Stigma. Mittel- und Hinterhüften quer runzelig. Pronotum beiderseits mit einem Zahn. Körper fein weisslich behaart. Hinterrand des Kopfes kragenartig aufgestülpt
 *intermedius* sp. nov.

Rostrot. Antennen und Beine bräunlichgelb. Flügel mit 2 schwärzlichbraunen Flecken. Kopf und Thorax fein goldgelb behaart. Hüften nicht runzelig. Pronotum ohne Zahn. Hinterrand des Kopfes nur leistenartig gerandet
 *rufipilosus* sp. nov.

***Pristaulacus intermedius* sp. nov.**

♀, ♂. Kopf weisslich fein behaart, schwach glänzend, spärlich fein punktiert, fast so lang wie breit, der Hinterrand des Kopfes deutlich kragenartig aufgestülpt; Wangen länger als der Schaft, letzterer verdickt, das 2te Fühlerglied kürzer als die halbe Länge des 3ten, das 3te etwas kürzer als das folgende, das 4te am längsten. Thorax weniger dicht und kürzer behaart als der Kopf; Hals kürzer als der Abstand der hinteren Ocellen vom Hinterrand des Kopfes, fein punktiert, mit 2 Längskielen in der Mitte. Pronotum grob runzelig, beiderseits mit einem dicken dreieckigen Zahn; Mesonotum grob, quer gerunzelt; Praescutum hervorgehoben, vorn herzförmig ausgeschnitten, in der Mitte mit schwacher Längsfurche; Scutellum querrunzelig; Mediansegment netzartig grob gerunzelt. Flügel fast hyalin, am Randmal nur wenig bräunlich getrübt, unter dem Stigma mit grossem quadratischen schwärzlichbraunen Fleck, welcher vom Stigma bis zur 2ten Kubitalzelle reicht; Adern und Stigma schwärzlich; die erste Diskoidalzelle und die 2te Kubitalzelle fast zusammenstossend, die letztere in der Mitte mit einer Spur des 2ten Kubitalquernervs. Beine schlank; Mittel- und Hinterhüften dicht fein querrunzelig. Hinterleib glatt und glänzend. Bohrer fast so lang wie der Körper.

Schwarz. Clypeus vorn und die Mitte des Hinterleibs sowie auch der Mandibeln dunkelrot. Schienen an der Spitze und die Tarsen dunkelbräunlich. Körperlänge: ♀ 12–13mm; ♂ 11 mm.

Fundorte: Hokkaido, Honshu und Kiushu.

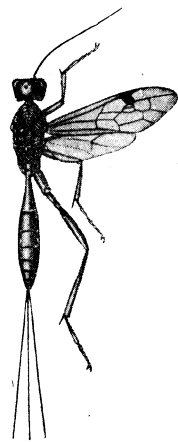
Holotypus: ♀, Iwate (Honshu), am 14. VII, 1908 (T. OGASAWARA).

Allotopotypus: ♂, Iwate (Honshu), am 7. VIII, 1909 (T. OGASAWARA).

Paratypen: 2 ♀, Sapporo (Hokkaido), am 6. VII, 1911 (S. MATSUMURA); 1 ♀, Bungo (Kiushu), am 14. VII, 1931 (T. ESAKI und FUJINO). Diese Art steht *P. iridipennis* CAM. aus Indien nahe, unterscheidet sich aber von ihm durch die schwarzen Schienen.

***Pristaulacus rufipilosus* sp. nov.**

♀. Kopf und Thorax fein goldgelb pubescent, der erstere etwas quer, zerstreut fein punktiert; Hinterrand des Kopfes nur leistenartig zugeschräfft; Stirn, Gesicht und Clypeus ziemlich dicht fein punktiert und dicht fein goldgelb behaart. Hals kurz. Propleuren dicht fein runzelig; Pronotum ohne Zahn;

**Fig. 1**

Pristaulacus intermedius UCH. (♀)
× 2

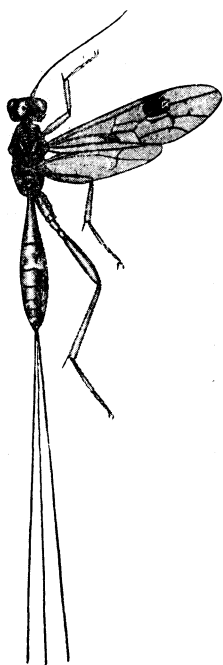


Fig. 2

Pristaulacus rufipilosus
UCH. (♀) × 2

Mesonotum grob quengerunzelt; Praescutum herzförmig, ziemlich stark hervorgehoben und in der Mitte nicht gefurcht; Scutellum undeutlich querrunzelig. Pronotum fein unregelmässig gerunzelt, hinten in der Mitte mit starker Längsleiste; Mesopleuren schräg gerunzelt. Hinterleib glatt. Bohrer etwas länger als der Körper. Flügel bräunlich hyalin, veilchenblau schimmernd, mit 2 schwärzlichbraunen Flecken.

Rostrot. Antennen und Beine gelbbraun. Clypeus und Mandibeln mit Ausnahme der Spitze rotbraun. Kopf schwarz. Hinterleib an der Basalhälfte schmutzig gelbbraun und an der Spitzenhälfte schwärzlichbraun. Körperlänge: ♀ 16 mm. Bohrerlänge: 20 mm.

Fundort: Hokkaido.

Holotypus: ♀, Sapporo, am 13. VIII, 1925 (T. UCHIDA). Das Männchen noch nicht bekannt. Das Tierchen ist verwandt mit *P. patratius* SERV. aus Europa, weicht aber von ihm durch die Färbung der Beine und des Hinterleibs ab.

(Aus dem entomologischen Institut
der kaiserlichen Hokkaido Universität,
Sapporo, Japan)

摘 要

本邦産セダカヤセ蜂科に就て

内 田 登 一

Aulacidae は 1841 年に SHUCKARD 氏に依つて創設せられたる膜翅目の一科にして、其後多くの學者は本科を *Evaniinae* 及び *Gasteruptioninae* と共に細蜂科 (*Evaniidae*) の一亞科となし來りたれども、近時 HANDLIRSCH 及び SCHMIEDEKNECHT 氏等の如く、從來の *Evaniidae* を三の獨立なる科に分つ者あり。而してこれ等の三科は形態上に著しき相違を有すると同時に、生態的に於ても亦全然異なるものなり。即ち *Evaniidae* は *Blatiidae* (ゴギアリ科) の卵鞘に寄生し、*Gasteruptionidae* は *Sphecidae* (細腰蜂科)、*Apidae* (蜜蜂科)、*Vespidae* (胡蜂科) 等の巢房に寄生し、*Aulacidae* は

Siricidae (樹蜂科) 及び *Xiphydriidae* (首長蜂科) 並びに *Cerambycidae* (天牛科) 等の如き樹木の材部に蠶入する昆蟲の幼蟲に寄生するものなり。されば著者は、從來の *Evaniidae* (細蜂科) を Superfamilie **Evaniidea** (細蜂首科) となし、其の中に包含せられたる三亞科を各々獨立なる科となしたり。而してこれ等三科に次の如き和名を與ふるものなり。

Evaniidea ヤセバチ首科	{	<i>Evaniidae</i>	マルヤセバチ科 (改稱)
		<i>Aulacidae</i>	セダカヤセバチ科 (新稱)
		<i>Gasteruptionidae</i>	コンボウヤセバチ科 (新稱)

本科 **Aulacidae** に屬する蜂は可成大形にして、且つ廣き分布區を有するにも拘らず、臺灣を除きたる本邦本土、樺太、朝鮮等よりは、今日まで發表せられしものあるを聞かず。ENDERLEIN氏は1912年に臺灣産の三新種 *Pristaulacus comptipennis*, *P. rufipes* 及び *P. Kiefferi* 等を公表せり。

著者は茲に樺太産の一未記録種 *Aulacus striatus* JUR. (クロセダカヤセバチ) 及び北海道産の一新種 *Pristaulacus rufipilosus* UCH. (キンケセダカヤセバチ) 並びに北海道、本州、九州等に産する一新種 *Pristaulacus intermedius* UCH. (ホシセダカヤセバチ) 等を公表せり。

ON HEDOPHYLLUM BONGARDIANUM (POST. ET RUPR.) YENDO AND FIVE SPECIES OF LAMINARIA FROM THE NORTH KURILES

BY

KINGO MIYABE and MASAJI NAGAI

(With 1 Plate and 4 Text-figures)



In 1901, SETCHELL established a new genus *Hedophyllum* taking *Laminaria sessilis* AGARDH as the type species and also added to it the another species, *H. subsessile* (ARESCH.) SETCH., elevating ARESCHOUG's forma *subsessilis* of *Hafgygia Bongardiana* (POST. et RUPR.) KÜTZ. to the specific rank. Both are found in the Northern Pacific, the former ranging from Yakutat Bay, Alaska to Point Sur, California and the latter in Bering Sea and its adjacent waters. After two years later, YENDO found and described an alga of this genus for the first time in our boundary (Shumushu Isl. of the North Kuriles), naming it *H. spirale* YENDO. Later he amalgamated his plant together with *H. subsessile* and some species of *Laminaria* under the name of *H. Bongardianum* (P. et R.) YENDO. However SETCHELL and GARDNER did not accept his opinion, and maintained *H. subsessile* as quite distinct from YENDO's *H. spirale*. They pointed out that judging from YENDO's account he seems to have confused several different plants and to entertain distinctly different views on relationships. In the course of the research on the Laminariaceae of Japan, the authors found again the present plant in the North Kuriles. In the present paper, we intend to describe the morphological characters of this plant together with some species of *Laminaria* found in this region.

Hedophyllum Bongardianum (POST. et RUPR.) YENDO

Notes on Algae new to Japan. II, p. 269, with fig., 1914 (excl. synonyms, *Hafgygia Ruprechtii* ARESCH., *Laminaria Ruprechtii* DE TONI, *L. Ruprechtii* MIYABE, *L. crassifolia* P. et R., *L. nigripes* KJELLM.)—OKAMURA, Enum. of Jap. Alg. 2nd Ed., p. 168, 1916 (excl. synonym, *Laminaria Ruprechtii* MIYABE).

Syn. *Laminaria Bongardiana* POST. et RUPR., Illustr. Alg., p. 10, Tab.

XIII, XIV, 1840—KJELLMAN, Beringhafv. Algfl., p. 43, 1889 (excl. f. *taeniata* KJELLM.).

Hafgygia Bongardiana Kütz., Spec. Alg., p. 577, 1849—ARESCHOUG, Observ. Phyc. IV, p. 5, 1883.

Laminaria digitata RUPR., Tange d. Ochotsk. Meeres, p. 352, 1851 (ex parte).

Arthrothamnus Bongardianus J. Ag., De Lamin., p. 28, 1868.

Hedophyllum subsessile (ARESCH.) SETCH., Notes on Algae I, Zoe, V, p. 122, 1901—SAUNDERS, Alg. HARRIMAN Exp., p. 430, 1901—SETCHELL et GARDNER, Alg. N. W. Amer., p. 263, pl. 20, 1903; Mar. Alg. Pacific Coast of N. Amer., p. 618, 1925.

H. spirale YENDO, Bot. Mag. Tokyo, XVIII, p. 165, pl. VI, fig. 1-6, 1903—OKAMURA, Rec. Oceanog. Wk. Jap., Vol. I, p. 54, Text-fig. 1, pl. XV, 1928.

Holdfast composed of filiform, 5-7 times di- or trichotomously branched verticillate hapteres; stipe generally short, stout, terete below, somewhat flattened, broadened upwards and canaliculated, ca. 5 mm. in diam. below, 9-20, mostly 11-15 mm. wide above, 2-7, mostly 4-6 cm. long; blade decumbent, simple, obovate or rarely oblong obovate, when young, rounded at the base, not plane but conspicuously bullated at the lower portion, later becoming broader than long, 29-45 × 56-78 cm. in size, and split into 2 or 3 wide segments in the upper end, at maturity much thickened in the external margins near the base, and the central portion of the blade torn and decayed away downwards to the base, forming at last two arms from the thickened bases of the old blade, on which partial blades enroll back towards the inner and then outer direction; mucilage lecunae in the stipe numerous, small, oblong, arranged in a row just beneath the periphery when young, becoming rather elongated when matured; the lacunae in the blade large, prominent, arranged rather sparsely in the subcortical layer; color dark brown; sori extended in irregular outlines on the basal portion of the blade.

Jap. name. *Nejire-kombu*.

Hab. Growing generally on the reefs exposed at ebb-tide.

Shumushu Isl.: Tenjin-iwa (M. NAGAI, July, 1932); Kataoka Bay (K. YENDO, 1903, M. NAGAI, Aug., 1930).

Paramushir Isl.: Kakumabetsu (M. NAGAI, July, 1930, July to Aug., 1932); Kamogawa (M. NAGAI, July, 1932); Arakawa (M. NAGAI, July, 1932); Suribachi Bay (M. NAGAI, Aug., 1932).

Distrib. Kamtschatka: Awatscha Bay (Russian collector); Baron Korfa (TAKAYAMA, after OKAMURA).

Bering Isl. (KJELLMAN).

Aleutian Isls.: Kyska Isl. (C. H. TOWNSEND); Amaknak Isl. in the Bay of Unalaska (W. A. SETCHELL and A. A. LAWSON, L. E. HUNT).

Alaska: Kadiak Isl., Uyak Bay (SETCHELL and LAWSON); Kukak Bay (SAUNDERS); Prince William Sound (SAUNDERS); Yakutat Bay (SAUNDERS).

State of Washington: Puget Sound (SAUNDERS).

In our plant, the rhizoidal hapteres on the thickened base of the old blade are not found, but in the older stage the short and small wart-like pseudo-rhizoidal protuberances are sometimes found on the stipe from base to near the transitional region, as well as even on the basal thickened portion of the blade. (Pl. V, fig. A). The mucilage lacunae in the stipe are small and nearly round or oblong in the juvenile stage, and this structure corresponds to the so-called "glandular cavity" of YENDO. (Pl. V, fig. D). In the adult ones, the lacunae are rather larger and somewhat elongated radially as stated above. (Pl. V, E). These characters of each different type are observed both in the simple and bifurcate forms. The junior author ascertained actually the blade of the plant to be decumbent, and not standing in its natural habit. Among our specimens, some ones show a very short stipe as in the illustration of SETCHELL and GARDNER's account, but others rather longer, flattened and slightly canaliculate as in the plate XIV of the illustrations of POSTELS and RUPRECHT. In the other case, some specimens show the palmate form with a shorter stipe as in the illustration of the cotype specimen found deposited in the Herbarium of the Botanical Museum of Berlin as sketched by YENDO. But the long-stiped form as figured in the plate XIII of POSTELS and RUPRECHT has not been found, and this form seems most likely to be one growing in a rather deeper water, and found stranded on the beach.

Laminaria longipes BORY

in Dict. Class., IX, p. 189, 1826—KÜTZING, Spec. Alg., p. 574, 1849—C. AGARDH, Spec. Alg. I, p. 133, 1820—ARESCHOUG, Obs. Phyc., IV, p. 15, 1883—KJELLMAN, Beringhafv. Algfl., p. 43, 1889—SETCHELL, Alg. Pribilof Isl. pp. 591, 592, pl. 95, 1899; Kelps of U. S. and Alaska, p. 150, 1912—SETCHELL et GARDNER, Alg. N. W. Amer., p. 260, 1903; Mar. Alg. of Pacific Coast of N. Amer. III, p. 597, 1925—YENDO, Notes on Alg. new to Jap. I, p. 125, 1909; Kaisan Shokubutsu-gaku, p. 295, 1910—OKAMURA, Enum. of Jap. Alg. 2nd Ed., p. 172, 1916.

Syn. *Laminaria saccharina*, f. *angustifolia* P. et R., Illustr. Alg., p. 10, Tab. XI, 1840.

Lessonia repens RUPR., Tange d. Ochotsk. Meer., p. 350, 1851.

Laminaria Ruprechtiana LE JOLIS, Examen, p. 71, 1855.

Arthrothamnus ? *longipes* J. AG., De Lamin., p. 26, 1867—DE TONI, Syll. Alg. III, p. 370, 1895.

Holdfast at first composed of a few hapteres arising from the basal part of the stipe, then these becoming rhizome-like, and giving off lateral-hapteres and also lateral erect shoots; stipe cylindrical, somewhat compressed at the apex, smooth on the surface (when wet), 13-37 cm. long, about 3-4 mm. in diam., without mucilage lacunae; blade plane, undivided, linear, cuneate at the base, acuminate or rounded at the apex, 2-7, mostly 2-4 cm. wide, 30-58 cm. long, with mucilage lacunae arranged rather sparsely in the cortex; color pale brown.

Jap. name. *Hime-kombu*.

Hab. Growing on the reefs in the low tide mark belt.

Alaid Isl.: Sekinezaki (H. ITO and G. KOMORI, Aug., 1926); Minami-ura (M. NAGAI, Aug., 1930).

Shumushu Isl.: Kataoka Bay (K. YENDO, 1903, M. NAGAI, July, 1930); Tenjin-iwa (M. NAGAI, July, 1932); Kosekigawa (M. NAGAI, July, 1932).

Paramushir Isl.: Kakumabetsu (M. NAGAI, July, 1930, July to Aug., 1932).

Distrib. Middle Kuriles: Shimushir Isl., Broughton Bay (M. NAGAI, July, 1930). South Saghalien: Eastern coast at Rorei (T. MIYAKE).

Bering Isl. (KJELLMAN).

Aleutian Isls.: Agattu Isl. (TOWNSEND); Kyska Isl. (TOWNSEND).

Alaska: St. Paul Isl. (GREELEY and SNODRASS).

The present plant is easily identified by the characteristics of the rhizome-like holdfast on which new erect fronds are formed, and the cylindrical stipe in which the mucilage lacunae are absent. In the North Kuriles, the present species grows abundantly on the reefs in the low tide water mark.

***Laminaria taeniata* POST. et RUPR.**

Illustr. Alg., p. 10, Tab. XXXVIII, fig. f. 1840.

Syn. *Laminaria Bongardiana*, f. *taeniata* KJELLM., Beringhafv. Algfl., p. 44, 1889.

L. platymeris, f. *taeniata* SETCH. et GARDN., Mar. Alg. Pacific Coast of N. Amer. III, p. 606, 1925.

Holdfast composed of a globular mass of several times dichotomously branched hapteres; stipe subterete below, more or less compressed upwards, slightly rugulose on the surface (when dry), 5 mm. in diam., 6-9 cm. long, with

a row of mucilage lacunae which are elongated radially and crowded closely in the outer portion of the cortex; blade plane, coriaceous, moderately thick, narrowly cuneate at the base, linear, split into a few linear lobes at the upper end, more or less undulate on the margin, 8-15, mostly 11-14 cm. wide, 229-426 cm. long, pale brown in color when dry; mucilage lacunae of the blade scanty, small and inconspicuous, situated in the outer portion of the cortex; sori extended in longitudinal bands or scattered in small spots on the median and middle portion of the blade.

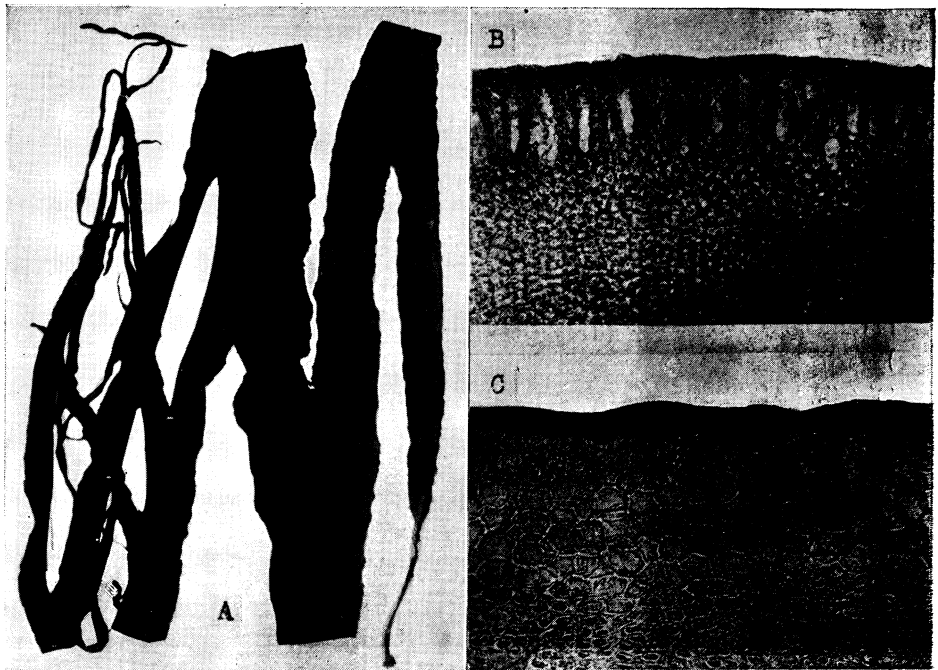


Fig. 1. A. Entire view of the plant. $\times 1/7$. B. Cross section of the stipe, showing the closely arranged and radially elongated mucilage lacunae in the outer portion of the cortex. $\times 90$. C. Cross section of the blade, showing three small mucilage lacunae arranged in the outer cortical layer. $\times 90$.

Jap. name. *Hosoba-chasenkombu*.

Hab. Shumushu Isl.: Tenjin-iwa (M. NAGAI, July, 1932).

Paramushir Isl.: Suribachi Bay (M. NAGAI, Aug. 1932).

Distrib. Kamtschatka (Russian collector).

Bering Isl. (KJELLMAN).

Although we are not able to examine the authentic specimens, the charac-

ters of our plant coincide exceedingly well with the original description and illustration of POSTELS and RUPRECHT. The junior author collected a large number of the specimens of this most characteristic species in the North Kuriles, not far from the original type locality in the eastern coast of Kamtschatka. One of the specimens in our hand, is very narrow and linear, showing the measurement of the stipe 7 cm. long, and of the blade 3.5×295 cm. in size. The blade is already split into two narrow segments at the upper end. We are of an opinion that it is better to treat the present plant as an independent species in preference as a form of either *L. Bongardiana* or *L. platymeris*.

***Laminaria cuneifolia* J. AG.**

De Lamin., p. 10, 1867.

f. *subsimplex* SETCH. et GARDN.

Mar. Alg. Pacific Coast of N. Amer. III, p. 602, 1925.

Syn. *Laminaria bullata*, f. *subsimplex* S. et G., Alg. N. W. Amer., p. 257, 1903—YENDO, Notes on Alg. new to Jap. I, p. 124, 1909—OKAMURA, Enum. of Jap. Alg., 2nd Ed., p. 174, 1916.

Holdfast composed of somewhat complanate hapteres which are several times dichotomously branched; stipe short and stout, terete below, somewhat compressed above, sometimes twisted, 4–6 mm. in diam., 3–8 cm. long, with a row of roundish mucilage lacunae of different sizes arranged just beneath the periphery; blade thick, somewhat coriaceous, cuneate or rarely somewhat rounded at the base, broadly linear, plane or rarely with a distinct row of bullae extending lengthwise for some distance above the base within each margin, entire or split into two or more broad segments from a half to a third of the distance to the base or sometimes nearly to the base, more or less wavy on the margin, 12–25, mostly 18–23 cm. wide, 76–219, mostly 88–128 cm. long, dark brown in color when dry, with moderately large mucilage lacunae arranged in a row in the outer portion of the cortex; sori extended in bands of irregular outlines on the outer portion from the upper to middle parts of the blade.

Jap. name. *Chishima-satsumatakombu*.

Hab. Growing on the reefs in the low tide mark belt, sometimes together with *Hedophyllum Bongardianum*.

Shumushu Isl.: Kataoka Bay (K. YENDO, 1903, M. NAGAI, Aug., 1930); Tenjin-iwa (M. NAGAI, July, 1932).

Paramushir Isl.: Kakumabetsu (M. NAGAI, July, 1930, July to Aug., 1932);

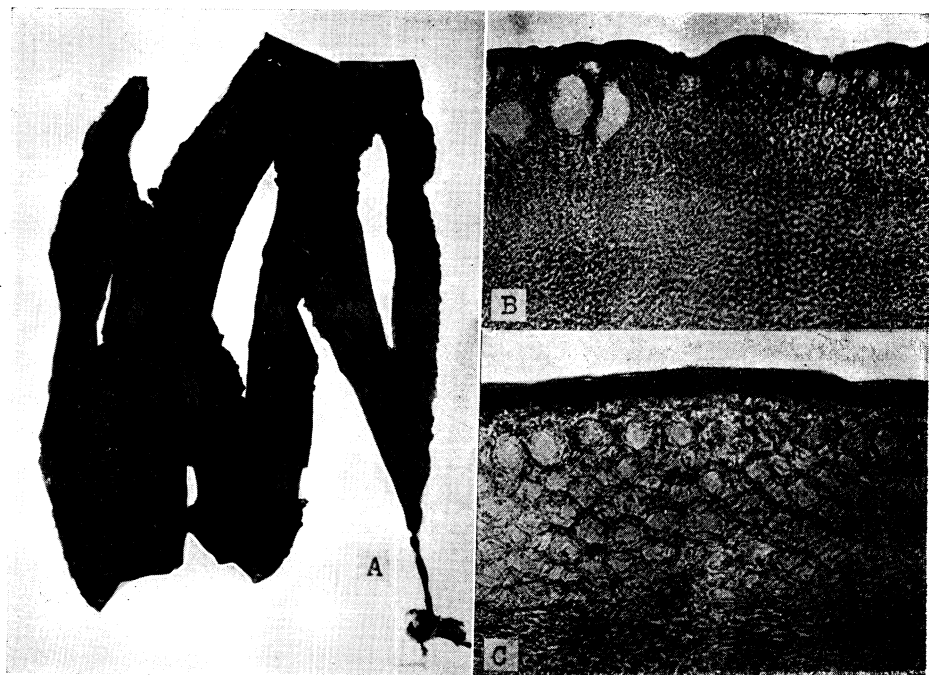


Fig. 2. A. Entire view of the plant. $\times 1/7$ B. Cross section of the stipe, showing a row of small, round mucilage lacunae associated with some larger ones nearby to the former, in the outer portion of cortex. $\times 90$. C. Cross section of the blade, showing a row of mucilage lacunae in the outer portion of the cortex. $\times 90$.

Arakawa (M. NAGAI, July, 1932); Kamogawa (M. NAGAI, July, 1932); Suri-bachi Bay (M. NAGAI, Aug., 1932).

Distrib. State of Washington: Whidbey Isl. (GARDNER).

After the comparison with the authentic specimen kindly distributed from the Department of Botany, California University, we were able to identify our plant with the present species. In our plant, the bullation does not usually appear on the blade, but it is shown only in the specimens from the eastern coast of Paramushir Isl. The stipe is terete below, but evidently compressed upwards, and sometimes twisted. The plant having narrower blade is somewhat similar to the wide form of the preceding species, but separable from it in the length of the blade and in the different forms of the mucilage lacunae in the stipe and blade. We are rather of an opinion that the present plant should better be treated as an independent species rather than as a form of *L. cuneifolia* J. Ag.

***Laminaria platymeris* DE LA PYL.**

Flore de Terre-Neuve, p. 52, 1829—SETCHELL, Kelps of U. S. and Alaska, p. 151, 1912 (ex parte)—SETCHELL et GARDNER, Mar. Alg. Pacific Coast of N. Amer. III, p. 605, 1925 (excl. synonyms, *Laminaria Bongardiana* P. et R., *L. taeniata* P. et R., *L. fissilis* J. AG.).

Syn. *Laminaria Ruprechtii* (not ARESCH.) MIYABE, Lamin. of Hokkaido, p. 42, pl. XIV, 1902.

L. dentigera, f. *longipes* SETCH. et GARDN., Alg. N. W. Amer., p. 259, 1903; Mar. Alg., p. 604.

Holdfast composed of strong, irregularly 5-6 times branched, closely set hapteres; stipe perennial, thick, elastic, somewhat rugulose (but smooth when wet) on the surface, very long, terete at the base, compressed upwards from about one forth to one third of the distance from the base, 1-1.5 cm. in diam.,

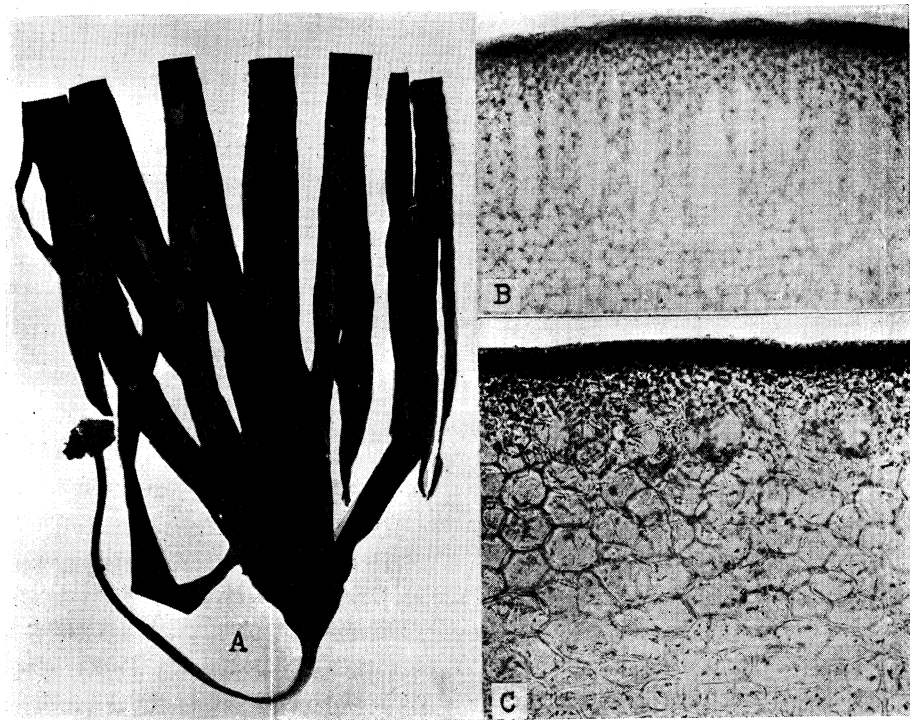


Fig. 3. A. Entire view of the plant. $\times 1/8$. B. Cross section of the stipe, showing the closely arranged mucilage lacunae in the subcortical layer. $\times 90$. C. Cross section of the blade, showing a row of the mucilage lacunae in the outer portion of the cortex. $\times 90$.

30-58 cm. long, with large, closely arranged mucilage lacunae in the peripheral tissue; blade plane, thick, oblong to elliptical, cuneate to rounded at the base, split deeply near to the base into 3-7 wide segments, 34-173, mostly 80-162 cm. long, 15-41, mostly 22-33 cm. wide, with mucilage lacunae rather closely arranged in the subcortical layer; dark brown in color; sori seated in irregular outlines on the middle portion of the blade-segments.

Jap. name. *Chishima-goheikombu*.

Hab. Growing in the sublittoral belt.

Alaid Isl.: Sekinezaki (H. ITO and G. KOMORI, Aug., 1926); Minamiura (M. NAGAI, Aug., 1930).

Shumushu Isl.: Kosekigawa (M. NAGAI, July, 1923).

Paramushir Isl.: Chitose Bay (M. NAGAI, July, 1930); Suribachi Bay (M. NAGAI, Aug., 1932).

Distrib. Middle Kuriles: Shimushir Isl., Broughton Bay (M. NAGAI).

South Kuriles: Etorofu Isl., E. coast, Naibo-mura (YANAGAWA); Hitokappu Bay (M. NAGAI).

Bering Sea to the Strait of Juan de Fuca, Washington State, Arctic North Region of Atlantic Ocean.

In our plant, the stipe is usually rather long, but rarely short in length, of about 9-21 cm. In fresh materials the stipe is always cylindrical up to two-thirds or to three-fourths of the distance from the base, and then compressed upwards near to the transitional region, but becomes conspicuously flattened, when dried, for a greater part of its length. We follow here tentatively the opinion of SETCHELL as to the specific identification, with the limitation as to his synonyms. The blade of the young or regenerated plant is frequently split slightly on the upper end or quite entire.

Laminaria dentigera KJELLM.

Beringhafv. Algfl., p. 45, Tab. 2, fig. 10-14, 1889—DE TONI, Syll. Alg. III, p. 341, 1895—SETCHELL et GARDNER, Alg. N. W. Amer., p. 259, 1903; Mar. Alg. Pacific Coast of N. Amer. III, p. 604, 1925—YENDO, Note on Alg. new to Jap. I, p. 124, 1909; Kaisan Shokubutsu-gaku, p. 293, Text-fig. 95, 1910—SETCHELL, Kelps of U. S. and Alaska, p. 151, 1912—OKAMURA, Enum. of Jap. Alg. 2nd Ed., p. 174, 1916—MIYABE, in Proc. Third Pan-Pacif. Sci. Congr. Tokyo, p. 955, 1926.

Holdfast composed of rigid, complanated, several times branched hapteres; stipe flexible, cylindrical, somewhat compressed at the apex, 6-8 mm. in diam., 20-43, mostly 23-30 cm. long, with large, densely crowded mucilage lacunae

in the subcortical layer; blade thick, coriaceous, sub lanceolate, cuneate at the base, split into a few, sometimes repeatedly, narrower segments with lacerated margins, 80-174 cm. long, 9-19 cm. (segments 3-8 cm.) wide, with mucilage lacunae rather closely arranged in the subcortical layer; dark brown in color; sori extended on the middle portion of the blade.

Jap. name. *Kumadekombu*.

Hab. Growing in the sublittoral belt.

Alaid Isl.: Sekinezaki (H. Iro et G. KOMORI, Aug., 1926).

Shumushu Isl.: Kataoka Bay (K. YENDO, 1903).

Paramushir Isl.: Kakumabetsu (M. NAGAI, July, 1930); Kamogawa (M. NAGAI, July, 1932); Suribachi Bay (M. NAGAI, Aug., 1932).

Distrib. South Saghalien: Cape Noto, at Shiranushi (TOKIDA).

Bering Isl. (KJELLMAN).

Aleutian Isls.: Agattu Isl. (TOWNSEND); Kyska Isl. (TOWNSEND).

The mucilage lacunae in the stipe are large, and somewhat rounded at the very base of the stipe, but rather elongated radially in the middle and upper portions.

The authors wish to acknowledge the indebtedness for the fund granted by the Imperial Academy for carrying out the present research.



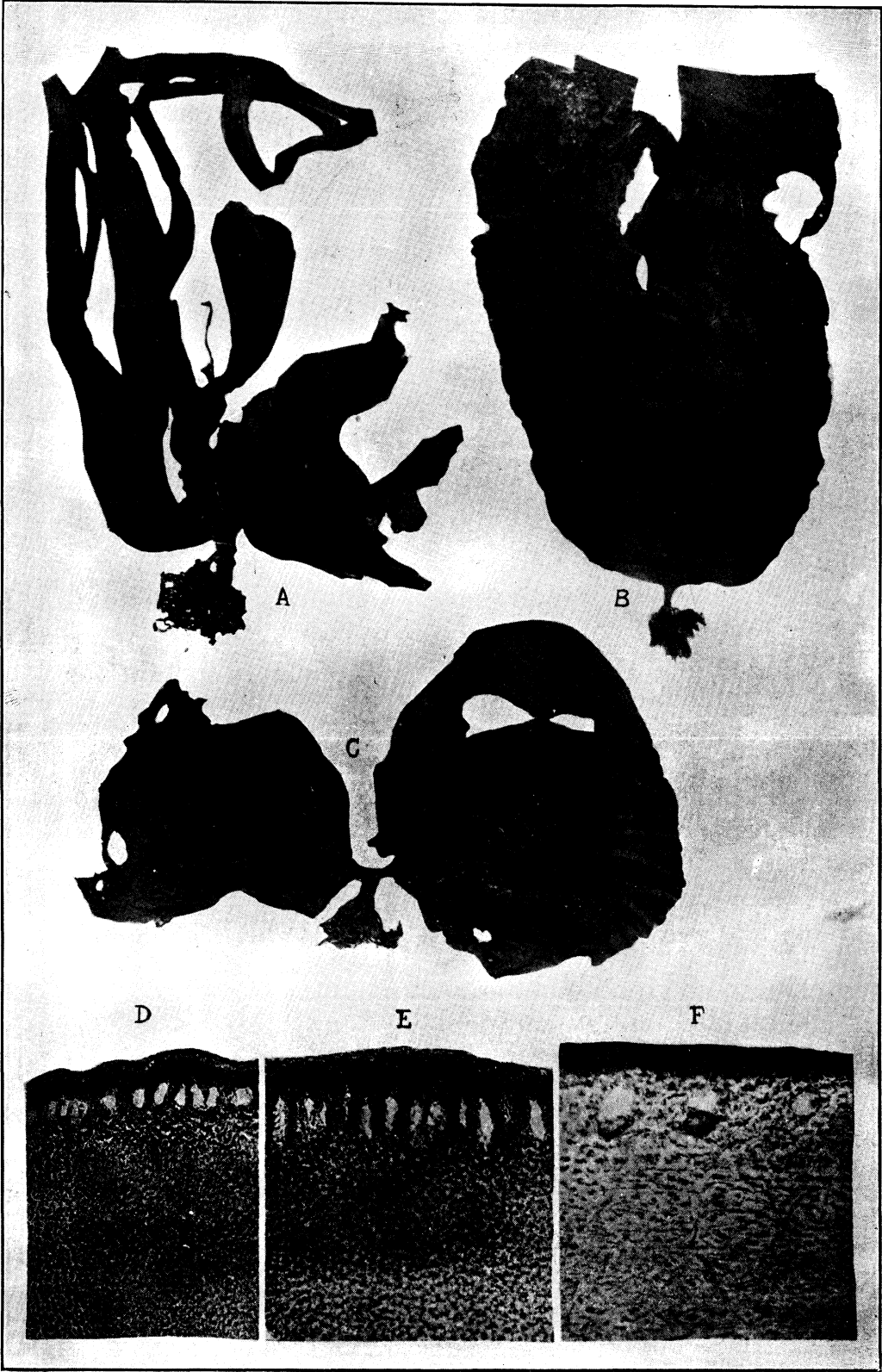
Fig. 4. Entire view of the plant.
× 1/8

Explanation of Plate

Hedophyllum Bongardianum (Post. et Rupr.) Yendo

In natural state, the stipe of this plant is standing erect, but the blade decumbent. The specimens in entire view in the plates, are made flattened at the growing portion between the stipe and blade for taking photographs. The plant in Fig. A and B, is photographed from the upper side of the blade, and in C. from the under side.

- Fig. A. Young plant, having obovate blade which is somewhat split at the upper end. The blade is wholly bullate on the lower portion. × 1/7.
- Fig. B. The plant, having the blade that died away on the upper and middle portions, and divided perfectly into two partial ones which enroll at each base. × 1/3.
- Fig. C. Old plant, showing the blade separated and then died away in a most part upwards. The wart-like pseudo-rhizoidal protuberances are shown on both sides of the stipe. × 1/4.
- Fig. D. Cross section of the blade, showing the mucilage lacunae arranged in the subcortical layer. × 90.
- Fig. E. Cross section of the stipe in young plant, showing a row of small, roundish mucilage lacunae in the subcortical layer. × 90.
- Fig. F. Ditto in the adult. The lacunae are more or less elongated radially. × 90.



M. NAGAI photo.

摘 要

北千島産ねぢれこんぶ及昆布屬五種に就て

宮 部 金 吾 ・ 永 井 政 次

北千島産昆布科植物中ねぢれこんぶ屬一種、昆布屬五種に就て記載せり。

即ち *Hedophyllum Bongardianum* (POST. et RUPR.) YENDO (ねぢれこんぶ)

Laminaria longipes BORY (ひめこんぶ)

L. taeniata POST. et RUPR. (ほそばちやせんこんぶ、新稱) (本邦新産)

L. cuneifolia, f. *subsimplax* SETCH. et GARDN.

(ちしまさつまたこんぶ、新稱)

L. platymeris DE LA PYL. (ちしまごへいこんぶ)

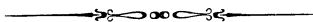
L. dentigera KJELLM. (くまでこんぶ)

A LIST OF THE SPECIMENS OF MURIDAE
FROM NORTHERN JAPAN KEPT IN
THE UNIVERSITY MUSEUM OF NATURAL
HISTORY IN SAPPORO WITH A DESCRIPTION
OF A NEW SUBSPECIES

BY

MITOSI TOKUDA

(With 2 Text-figures)



By the permission of the curator the writer examined the collection of specimens of Muridae in the University Museum in Sapporo. Among them there are included many specimens from northern Japan, including Hokkaido, the Kurile Islands and Sakhalin. As the Muridae from these parts of the country have been identified only unsatisfactorily it seems worth while to report the results of this investigation. There are one new subspecies and 8 known species totally.

In this place the writer should like to express his best thanks to Dr. T. INUKAI who kindly acceded to the request for permission to examine the specimens and he also acknowledges his great indebtedness to Dr. T. KOMAI for his direction and constant encouragement during the work.

Subfamily *MICROTINAE*

Genus *Clethrionomys* TILESIIUS, 1850

1. *Clethrionomys rufocanus kurilensis* subsp. n. (Fig. 1, 2)

Type: Subadult female (skin and skull).

Type locality: Paramushir Island of the Kuriles (caught May 12, 1928).

Diagnosis. Size smaller than *Clethrionomys rufocanus rufocanus*; scarcely attaining 105 mm. in head and body length. The other respects of external characters resemble *rufocanus rufocanus*; mantle reddish chestnut. Braincase and nasal length very short, the skull thus appearing much contracted; greatest length of skull less than 25 mm.

Color and external characters. Mantle reddish chestnut on the back, dispersed with long black hairs. The other parts: muzzle, cheeks, flanks, rump

[Transact. Sapporo Nat. Hist. Soc., Vol. XII, Pt. 4. December, 1932]

and belly whitish grey. The contrast of these colors is conspicuous. All the hairs washed by slaty base. Ears concolorous with flanks, but the hairs of the pre-auricular and post-auricular patches with yellowish or pallid tips. Hand and foot whitish grey above; sole not so densely haired as in *rufocanus rufocanus*.



Fig. 1

Right upper molar of *Clethrionomys rufocanus kurilensis* $\times 15$

canus, hairs ending before the last pad. Tail rather thinly clad with long stiff hairs, forming a terminal pencil of about 5 mm. in length; annulation dimly visible.

Skull and teeth. Skull noticeably short, with greatest length not exceeding 25 mm. with cement spaces of molars entirely closed. Lines of cheek-teeth curved and divergent posteriorly; the distance between molars measured at anterior end being 2.3 mm., while the same at the posterior end 4.5 mm. Cheek-teeth robust as characteristic of *rufocanus* group, and its pattern showing not the slightest difference from that of *rufocanus rufocanus*.

Dimension: (measured by collector).

Head and body	Tail	Hind foot	Ear
103 mm.	33	17	13

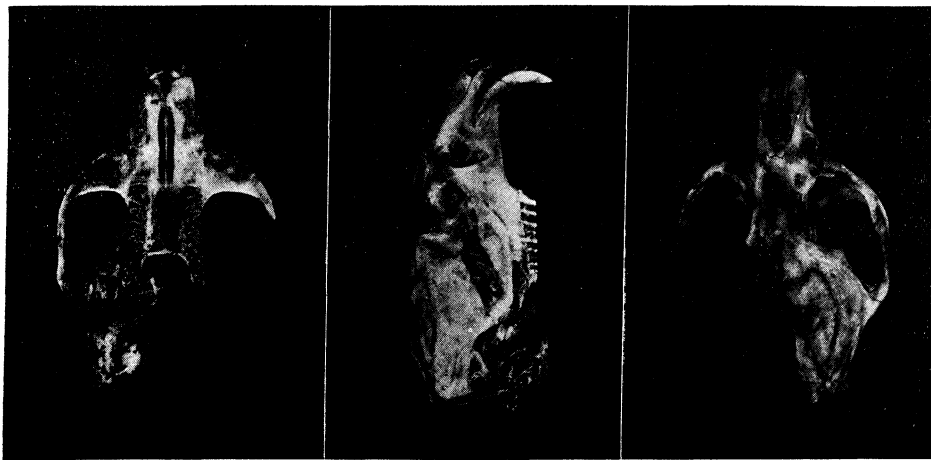


Fig. 2

Skull of *Clethrionomys rufocanus kurilensis* $\times 2$

Remarks: The wide range of distribution of *Clethrionomys rufocanus rufocanus* has been noticed by HINTON (1926): "Northern Europe and Asia; in Europe southwards, in the mountains of Norway, to Dovre; in Asia east to Kamtschatka and south to the Syansk Mountains, the shores of Lake Baikal, and probably to the Kinghan Mountains in Northern Manchuria." This vole of Paramushir shows in every respect a close affinity to that of *rufocanus rufocanus* as mentioned above. This fact coincides with the geographical location of Paramushir, which is very near Kamtschatka. The skull of this specimen is imperfect; the left half of the braincase and the left zygomatic arch are broken and missing; but fortunately the other important parts remain intact. Collector unrecorded.

Cranial measurements:

Greatest length	24 mm. (?)
Zygomatic breadth	14.5
Nasal length	6.4
Width of interorbital constriction	3.5
Distema	7.1
Palatal length	11.2
Foramen incisivum ..	4.5
Length of upper molar series	6
Breadth of first molar of upper jaw	1

2. *Clethrionomys rufocanus bedfordiae* THOMAS, 1905.

Measurements:

No.	Locality	Sex	H. & B.	Length in mm.		Ear	Remarks
				Tail	H. F.		
8	Hakodate	?	121	56	20.5	15	skin
9	Sapporo	♀	115	52	—	14	skin
10	Kunibetū	♂	104	48	19.5	14.5	skin

Number of specimens: 16

Locality and date of collection: Sapporo (1890, 1911, 1914), Sibetū (?), Hakodate (1907), Kunibetū (1907).

3. *Clethrionomys amurensis mikado* THOMAS, 1905.

Measurements: uncertain.

Number of specimens: 3.

Locality and date of collection: Sapporo (1888, 1914), Hakodate (1908).

Subfamily *MURINAE*

Genus *Apodemus* KAUP. 1829

4. *Apodemus speciosus ainu* THOMAS, 1905

Measurements:

No.	Locality	Sex	H. & B.	Length in mm.		Ear	Remarks
				Tail	H. F.		
2	Kunasiri (Kurile)	♀	99	95	24.5	14	skin

Number of specimens: 6.

Locality and date of collection: Isarikawa (1908), Kunashiri (1907), Titose (1882), Sibetu (?).

5. *Apodemus geisha hokkaidi* THOMAS, 1905

Measurements:

No.	Locality	Sex	H. & B.	Length in mm.		Ear	Remarks
				Tail	H. F.		
1	Zenibako	?	85	76	—	—	skin and skull
2	Zyozankei	♂	84	93	20	12	skin and skull
7	Yunokawa	♀	78	85	19.5	13	skin
8	Hakodate	♂	82	87	19.5	13	skin

Number of specimens: 9.

Locality and date of collection: Zenibako (1907), Zyozankei (1914), Garugawa (1907), Hakodate (1907, 1908, 1909), Yunokawa (1918).

6. *Apodemus speciosus giliacus* THOMAS, 1907

Measurements:

No.	Locality	Sex	H. & B.	Length in mm.		Ear	Remarks
				Tail	H. F.		
1	Sakhalin	?	92	82	20	11	skin and skull

Number of specimen: 1.

Locality and date of collection: Sakhalin (1908).

Genus *Rattus* FISHER, 1803

7. *Rattus norvegicus norvegicus* ERXLEBEN, 1777

Measurements:

No.	Locality	Sex	H. & B.	Length in mm.		Ear	Remarks
				Tail	H. F.		
9	Sapporo	♀	—	150	20	—	skin
10	Sapporo	♀	187	177	35	20	skin and skull

No.	Locality	Sex	H. & B.	Length in mm.		Ear	Remarks
				Tail	H. F.		
15	Toyohara (Sakhalin)	?	143	116	33	14	skin
24	Sapporo	♂	190	170	-	15	skin

Number of specimens: 29.

Locality and date of collection: Sapporo (1884, 1893, 1895, 1907, 1908, 1909, 1910, 1914), Toyohara (1908), Osaka (Sakhalin 1910).

Genus *Mus* LINN., 1758

8. *Mus molossinus yesonis* KURODA, 1928

Measurements:

No.	Locality	Sex	H. & B.	Length in mm.		Ear	Remarks
				Tail	H. F.		
7	Sapporo	?	79	65	15	12	skin
11	Sapporo	?	50	51	16	9	skin and skull

Number of specimens: 17.

Locality and date of collection: Sapporo (1907, 1908, 1914, 1915), Isikari (1907).

9. *Mus wagneri* var. *albula* KISHIDA, 1924

Measurements: uncertain.

Number of specimen: 1.

Locality and date of collection: Sapporo (1885).

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摘 要

札幌博物館所藏北日本産鼠科目録

徳 田 御 稔

北海道帝國大學農學部附屬博物館所藏の北日本(北海道、千島、樺太)の鼠科目録を略記す。九種の中北千島幌筵島より採集保存せられたる一種は、新亞種なるを以て之が特徴を記し、下記の如く命名せり。

Clethrionomys rufocanus kurilensis sub. sp. チシマヤチネズミ(新稱)

新亞種は北ヨーロッパ並に北アジヤに廣く分布する *Clethrionomys rufocanus rufocanus* に親縁を有し、体の上面は赤栗色にして、下面は灰白色なり。外見上後種と異なるは体の一般に小形なる點とす。頭骨にあつては一般に前後に壓縮されたる觀を呈し、鼻骨は特に短し。臼齒の狀は全く後種と等しく、區別する點を認めず。

(Institute of Zoology, the Kyoto Imperial University)

A CONICAL FUNNEL-SHAPED WASHING APPARATUS

BY

KYOJIRO SHIMAKURA

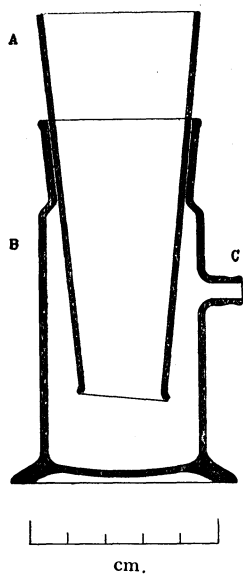
(With One Text-figure)

Following the fixation in a solution containing chromic acid, osmium tetroxide, or potassium bichromate, a thorough washing of the specimen in running water is occasionally needed in order to secure good cutting and staining qualities, clear appearance, and preservability of the preparation. The following device is a new addition, perhaps worthy of being described, to a number of useful kinds of washing apparatus hitherto employed (cf. ROMEIS, Taschenbuch der mikroskopischen Technik, 1932; SUZUKI, Microscope and Microscopical Technique, in Japanese, 1924).

The working part of the new device is an upright conical glass funnel, the diameter of which is twice as large at the broader end as at the narrower. After applying a piece of silk cloth to close its narrower end, where the edge

is slightly turned out for the purpose, the funnel (A) is tightly inserted into a glass bottle (B), in the same manner as a ground glass stopper, as shown in the appended figure. The bottle is provided with a side tube (C), which may be connected with a faucet by means of a rubber tube.

In use, the bottle is filled with water, and the specimen to be washed is carefully flowed with some water into the funnel. The broader end of the funnel is closed with another piece of silk and then the faucet is slowly opened.



Conical Funnel-shaped
Washing Apparatus
in Vertical Section.

As water runs upwards through the funnel the velocity of the current is multiplied four times and, consequently, the resistance exerted upon the specimen, which tends to sink (unless it contains air bubbles), is about sixteen times as great at the bottom of the funnel as at the top. This causes the specimen to be suspended midway between the two ends of the funnel, gently moving to and fro and seeking the equilibrial point between the attraction of gravity and the resistance of the current. Practically the specimen seldom adheres to the funnel wall and the risk of damaging the specimen is entirely avoided, whereas the washing is extremely effective and complete. If water contains excess of air dissolved in it, bubbles may accumulate beneath the silk at the bottom of the funnel. To avoid this the narrower end of the funnel should be cut slightly aslant so as to make the air bubbles gather automatically at the top of the bottle (B). When the washing has been finished it is no less easy to remove or flow

the specimen with some water into a glass vial for the next treatment. Since several years, the device has worked quite satisfactorily in our laboratory.

Zoological Institute, Faculty of Agriculture,
Hokkaido Imperial University, Sapporo.

摘 要

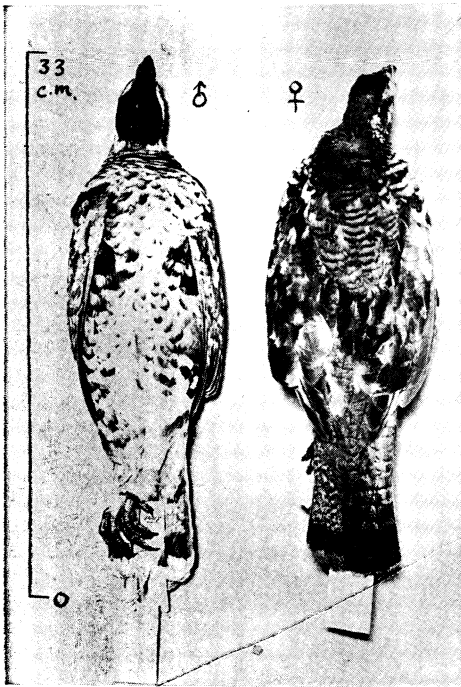
固 定 標 本 の 新 洗 滌 装 置

島 倉 亨 次 郎

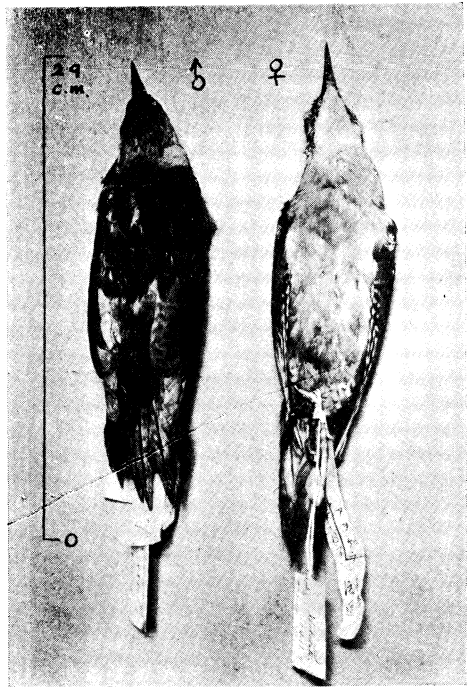
固定標本を流水で洗はうとする時に、流速を加減した上向きの上向き水流を作つてその中に標本を自動的に懸垂させながら、効果的に、安全に目的を達しようとする方法並びにその装置。



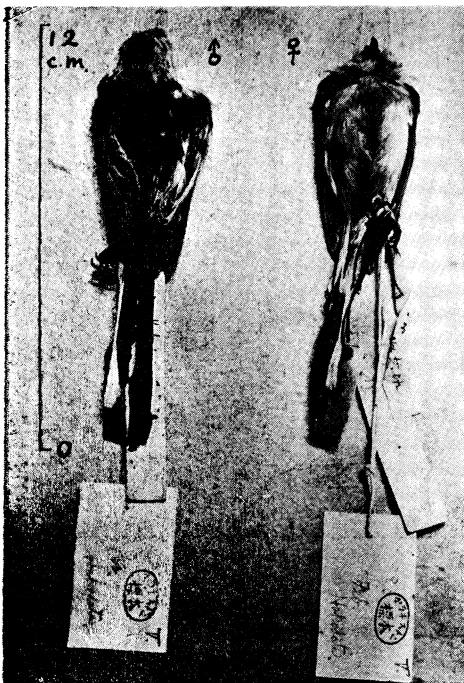
Thos. Blakiston



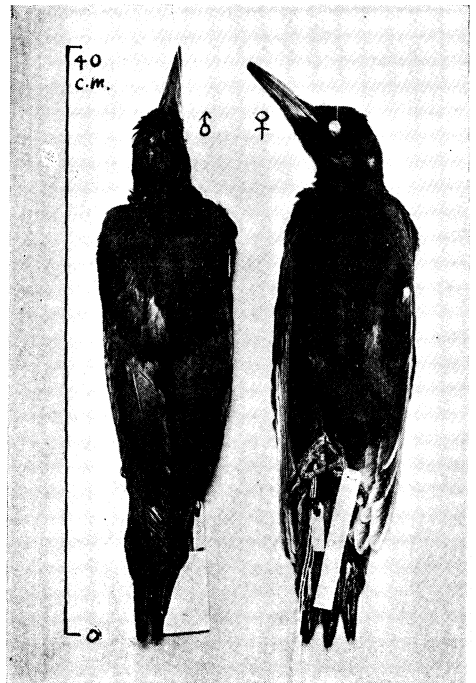
1. *Yezo-raicho*.
Tetrastes bonasia vicinitas Riley



2. *Yama-gera*.
Picus canus jessoensis Stejneger



3. *Shima-enaga*.
Aegithalos caudatus japonicus Prazak



4. *Kuma-gera*.
Dryocopus martius martius (Linnaeus)

Birds' skins from the BLAKISTON'S collection

A LIST OF BIRDS' SKINS PRESENTED BY
CAPTAIN BLAKISTON IN THE UNIVERSITY
MUSEUM OF NATURAL HISTORY OF SAPPORO
WITH A BRIEF ACCOUNT OF HIS LIFE
IN HOKKAIDO*

BY

Marquis YOSHIMARO YAMASHINA,
TETSUO INUKAI and BUKÔ NATORI



Preface

Captain Thomas Wright BLAKISTON left the large collection of birds' skins gathered by himself during the years 1862 to 1884 mostly in Hokkaido, Japan as a memorial of his sojourn in that part of the country. These important presents are kept at present in the Museum of Natural History of the Hokkaido Imperial University in Sapporo under great care. Upon these specimens his invaluable ornithological contributions were based and from these specimens was derived his famous hypothesis of a line demarcating the animal distribution of Japan. The collection of birds' skins in the museum has recently been examined and a complete list made for publication for the first time.

Furthermore it is worthy of note that Captain BLAKISTON had much to do not only with the ornithology but also with the development of civilization of Japan in general which was still in a poor state at his time. A persistent attempt to gather the events of Captain's career in Japan has long been under way, but to our regret, from scattered bits regarding his life only a rather defective biography has been obtained which we are now going to venture to issue.

The writer should like to take this opportunity to express his appreciation of help so freely offered by Marquis YAMASHINA without whose wholehearted assistance it is safe to say the work would have never been finished.

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Chief Curator of the Museum.

* Contribution from the University Museum of Natural History in Sapporo in 1932.

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1. A List of Birds' Skins Presented by Captain BLAKISTON

BY

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Since the time of Captain BLAKISTON there has been a great advancement in ornithology as well as in the other fields of natural science. Accordingly the identification of birds adopted by BLAKISTON has become largely unfamiliar to present day ornithologists. In the following list we have referred to the newest identification of birds and arranged the names in the ordinary systematic order which is now current. However, for the sake of convenience of reference we have given the original identification of Capt. BLAKISTON at the end of the list. The collection consists in 1331 individuals covering 255 forms. Unfortunately some of the original specimens were lost when they were sent to some exhibition held in Tokyo. They were replaced by new ones which are indicated in the list with a date of collection later than 1885.

Explanation of the order of description

for example

species name	1	<i>Corvus crax behringianus</i> DVBOWSKI
English name		Bering Island Raven
Japanese name		<i>Watarigarasu</i>
number of specimens	1	
date of collection	?	
place of collection		Kurile Islands (Etorofu)

Order PASSERES

Family CORVIDAE

- 1 *Corvus corax behringianus* DYBOWSKI
Bering Island Raven
Watarigarasu
1
?
Kurile Islands (Etorofu)
- 2 *Corvus coronoides japonensis* BONAPARTE
Japanese Jungle Crow
Ezo-hashibutogarasu
5
1875-1884
Hokkaido (Hakodate, Sapporo, Otaru)
- 3 *Corvus corone corone* LINNAEUS
Carrion-Crow
Hashibosogarasu
9
1874-1875
Hokkaido (Hakodate, Tomikawa, Nedanai, Otaru, Shikunobe)
- 4 *Corvus frugilegus pastinator* GOULD
Eastern Rook
Miyamagarasu
1
1877
Hondo (Tokyo)
- 5 *Corvus dauricus dauricus* PALLAS
Daurian Jackdaw
Kokumarugarasu
1
1878
Hokkaido (Kametagun)
- 6 *Pica pica sericea* GOULD
Chinese Magpie
Kasasagi
1
?
?
- 7 *Nucifraga caryocatactes japonicus* HARTERT
Japanese Nutcracker
Hoshigarasu
2
1878

Hokkaido (Hakodate)

8 *Garrulus glandarius pallidifrons* KURODA

Yezo Brandt's Jay

Miyama-kakesu

14

1874-1877

Hokkaido (Horoizumigun, Sapporo, Abutagun, Atsu-usu-betsu)

9 *Garrulus glandarius japonicus* TEMMINCK & SCHLEGEL

Japanese Jay

Kakesu

2

1874

Hondo (Yokohama), Kiusiu (Nagasaki)

Family STURNIDAE

10 *Spodiopsar cineraceus* (TEMMINCK)

Grey Starling

Mukudori

10

1874-1877

Hokkaido (Hakodate, Sapporo, Sarubuto, Kazan-wan)

11 *Sturnia philippensis* (FORSTER)

Red-cheeked Myna

Komukudori

16

1874-1882

Hokkaido (Hakodate, Sapporo, Sarubuto)

Family FRINGILLIDAE

12 *Coccothraustes coccothraustes japonicus* TEMMINCK & SCHLEGEL

Japanese Hawfinch

Shime

6

1877-1882

Hokkaido (Hakodate)

13 *Eophona personata personata* (TEMMINCK & SCHLEGEL)

Japanese Masked Hawfinch

Ikaru

2

?

Hondo (Tokyo)

14 *Chloris sinica sitchitoensis* MOMIYAMA

Sakhalin Greenfinch

Karafuto-kawarahiwa

4

1874-1877

Hokkaido (Hakodate, Sapporo, Nemuro), Hondo (Yokohama)

15 *Chloris sinica minor* (TEMMINCK & SCHLEGEL)

Small Japanese Greenfinch

Ko-kawarahiwa

6

1877-1882

Hokkaido (Sapporo, Atsu-usu-betsu), Hondo (Yokohama)

16 *Carduelis spinus* (LINNAEUS)

Siskin

Mahiwa

5

1875-1897

Hokkaido (Hakodate, Sapporo)

17 *Carduelis flammea exilipes* (COUES)

Hoary Redpoll

Ko-benihawa

1

?

?

18 *Carduelis flammea flammea* (LINNAEUS)

Mealy Redpoll

Benihawa

2

?

Hokkaido (Hakodate)

19 *Uragus sibiricus sanguinolentus* (TEMMINCK & SCHLEGEL)

Japanese Long-tailed Rose-finch

Benimashiko

17

1874-1877

Hokkaido (Hakodate, Sapporo, Nemuro)

20 *Pyrrhula pyrrhula griseiventris* LAFRESNAYE

Oriental Bullfinch

Uso

12

1875-1877

Hokkaido (Hakodate), Hondo (Tokyo)

21 *Erythrura rosea* (PALLAS)

Pallas's Rose-finch

O-mashiko

3

1875-1877

Hondo (Tokyo)

- 22** *Loxia curvirostra japonica* RIDGWAY
 Eastern Crossbill
Isuka
 3
 1877
 Hokkaido (Hakodate), Hondo (Tokyo)
- 23** *Fringilla montifringilla* LINNAEUS
 Brambling
Atori
 7
 1877
 Hokkaido (Hakodate, Horoizumigun)
- 24** *Leucosticte arctoa brunneinucha* (BRANDT)
 Japanese Ground-Linnet
Hagimashiko
 17
 1873-1877
 Hokkaido (Hakodate, Horoizumigun)
- 25** *Passer montanus kaibatoi* MUNSTERHJELM
 Sakhalin Tree-Sparrow
Karafuto-suzume
 7
 ?
 ?
- 26** *Passer montanus saturatus* STEJNEGER
 Japanese Tree-Sparrow
Suzume
 2
 1
 Hondo (Tokyo)
- 27** *Passer rutilans rutilans* (TEMMINCK)
 Russet Sparrow
Niunaisuzume
 30
 1875-1891
 Hokkaido (Hakodate, Sapporo), Hondo (Tokyo)
- 28** *Emberiza aureola aureola* PALLAS
 Yellow-breasted Bunting
Shimaarwoji
 5
 1874-1882
 Hokkaido (Tomakomai, Yufutsu, Mukawa), Hondo (Tokyo)

- 29** *Emberiza elegans elegans* TEMMINCK
Yellow-throated Bunting
Miyamahôjirô
1
1875
Hondo (Tokyo)
- 30** *Emberiza spodocephala personata* TEMMINCK
Japanese Bunting
Aoji
29
1874-1882
Hokkaido (Hakodate, Sapporo, Konuma, Mukawa, Shiraoi, Nemuro)
- 31** *Emberiza sulphurata* TEMMINCK & SCHLEGEL
Japanese Yellow Bunting
Nojiko
2
1877
Hondo (Tokyo)
- 32** *Emberiza cioides ciopsis* BONAPARTE
Japanese Meadow Bunting
Hôjirô
18
1874-1884
Hokkaido (Hakodate, Sapporo, Yufutsugun, Sarumonbetsu, Uchiura-Bay)
- 33** *Emberiza fucata fucata* PALLAS
Grey-headed Bunting
Hôaka
17
1876-1882
Hokkaido (Hakodate, Sapporo, Yufutsu, Horobetsu, Uchiura-Bay)
- 34** *Emberiza rustica* PALLAS
Rustic Bunting
Kashiradaka
10
1875-1882
Hokkaido (Hakodate, Sapporo)
- 35** *Emberiza variabilis* TEMMINCK
Japanese Grey Bunting
Kuroji
1
1874-1877
Hokkaido (Nemuro), Hondo (Tokyo)
- 36** *Emberiza yessoënsis yessoënsis* (SWINHOE)
Japanese Reed Bunting

Kojurin

5

1875-1882

Hokkaido (Hakodate, Yufutsu), Hondo (Tokyo)

37 *Emberiza schoeniclus pyrrhulinus* SWINHOE

Swinhoe's Reed Bunting

Ôjurin

10

1875-1882

Hokkaido (Hakodate, Tomakomai, Yufutsu), Hondo (Tokyo)

Family *ALAUDIDAE***38** *Alauda arvensis japonica* TEMMINCK & SCHLEGEL

Japanese Skylark

Hibari

10

1874-1900

Hokkaido (Hakodate, Sapporo, Yufutsu), Hondo (Awomori, Yokohama)

Family *MOTACILLIDAE***39** *Anthus hodgsoni berezowskii* SARUDNY

Chinese Tree-Pipit

Binzui

22

1877-1888

Hokkaido (Sapporo), Hondo (Yokohama)

40 *Anthus spinoletta japonicus* TEMMINCK & SCHLEGEL

Japanese Water-Pipit

Tahibari

25

1874

Hokkaido (Sapporo), Sea of Japan

41 *Motacilla cinerea caspica* (S. G. GMELIN)

Eastern Grey Wagtail

Kisekirei

11

1876-1885

Hokkaido (Hakodate, Sapporo), Kiusiu (Nagasaki)

42 *Motacilla alba lugens* KITTLITZ

Japanese Pied Wagtail

Hakusekirei

1

1878

Kurile Islands

- 43** *Motacilla grandis* SHARPE
 Japanese Wagtail
Segurosekirei
 2
 1876-1887
 Hokkaido (Sapporo, Arikawa)

Family *ZOSTEROPIDAE*

- 44** *Zosterops palpebrosa japonica* TEMMINCK & SCHLEGEL
 Japanese White-Eye
Mejiro
 2
 1877
 Hondo (Tokyo), Hokkaido (Hakodate: from birdcatcher)

Family *CERTHIIDAE*

- 45** *Certhia familiaris familiaris* LINNAEUS
 Common Tree-creeper
Kita-kibashiri
 5
 1877-1878
 Hokkaido (Hokodate, Sapporo)

Family *SITTIDAE*

- 46** *Sitta europaea clara* STEJNEGER
 Yezo Nuthatch
Shirohara-gojuukara
 13
 1877-1882
 Kurile Islands, Hokkaido (Hakodate, Sapporo)
- 47** *Sitta europaea hondoensis* BUTURLIN
 Hondo Nuthatch
Gojuukara
 1
 1877
 Hondo (Tokyo)

Family *PARIDAE*

- 48** *Parus major minor* TEMMINCK & SCHLEGEL
 Japanese Great-Tit

Shijiukara

13

1875-1882

Hokkaido (Hakodate, Sapporo)

49 *Parus palustris hensoni* STEJNEGER

Henson's Marsh-Tit

Henson-kogara

12

1877-1882

Hokkaido (Hakodate, Sapporo, Kunebeji)

50 *Parus varius varius* TEMMINCK & SCHLEGEL

Varied Tit

Yamagara

2

1885

Hokkaido (Hakodate)

51 *Parus ater insularis* HELLMAYR

Japanese Coal-Tit

Higara

4

1882

Hokkaido (Hakodate, Sapporo)

52 *Aegithalos caudatus trivirgatus* (TEMMINCK & SCHLEGEL)

Japanese Long-tailed Tit

Enaga

2

?

Hondo (Tokyo)

53 *Aegithalos caudatus japonicus* PRAZAK

Yezo White-headed Long-tailed Tit

Shima-enaga

6

1875-1879

Hokkaido (Hakodate, Sapporo)

Family *LANIIDAE*54 *Lanius cristatus superciliosus* LATHAM

Japanese Red-tailed Shrike

Akamozu

1

?

Hokkaido (Hakodate)

55 *Lanius bucephalus* TEMMINCK & SCHLEGEL

Bull-headed Shrike

Mozu

7

1876-1891

Hokkaido (Sapporo), Kiusiu (Nagasaki)

Family *BOMBYCILLIDAE*56 *Bombycilla garrula centralasiae* POLJAKOV

Eastern Waxwing

Kirenjaku

8

1877-1900

Hokkaido (Hakodate, Otarunai)

57 *Bombycilla japonica* (SIEBOLD)

Japanese Waxwing

Hirenjaku

6

1878

Hokkaido (Sapporo), Hondo (Tokyo)

Family *BRACHYPODIDAE*58 *Microscelis amaurotis hensoni* (STEJNEGER)

Henson's Brown-eared Bulbul

Ezo-hiyodori

5

?

?

59 *Microscelis amaurotis amaurotis* (TEMMINCK)

Brown-eared Bulbul

Hiyodori

2

1876

Kiusiu (Nagasaki)

Family *CAMPEPHAGIDAE*60 *Pericrocotus roseus divaricatus* (RAFFLES)

Ashy Minivet

Sanshokui

3

1877

Hondo (Tokyo, Yokohama)

Family *MUSCICAPIDAE*

- 61 *Tchitreia atrocaudata atrocaudata* (EYTON)
Japanese Paradise Flycatcher
Sankôchô
2
1877
Hondo (Tokyo, Yokohama)
- 62 *Alseonax latirostris latirostris* (RAFFLES)
Sumatran Brown Flycatcher
Kosamebitaki
5
1877
Hokkaido (Hakodate, Sapporo, Mori)
- 63 *Hemichelidon sibirica sibirica* (GMELIN)
Siberian Flycatcher
Samebitaki
3
1877
Hokkaido (Sapporo)
- 64 *Zanthopygia narcissina narcissina* (TEMMINCK)
Narcissus Flycatcher
Kibitaki
11
1877
Hokkaido (Hakodate, Sapporo, Mori)
- 65 *Cyanoptila cyanomelana cyanomelana* (TEMMINCK)
Japanese Blue Flycatcher
Ôruri
2
1882
Hokkaido (Hakodate, Sapporo)

Family *SYLVIIDAE*

- 66 *Acanthopneuste borealis borealis* (BLASIUS)
Arctic Willow-Warbler
Komushikui
2
1875-1898
Hokkaido (Hakodate, Sapporo)
- 67 *Acanthopneuste borealis xanthodryas* (SWINHOE)
Swinhoe's Willow-Warbler
Mebo

- 1
1875
Hokkaido (Hakodate)
- 68 *Acanthopneuste occipitalis coronata* (TEMMINCK & SCHLEGEL)
Temminck's Crowned Willow-Warbler
Sendaimushikui
3
1874-1878
Hokkaido (Hakodate, Sapporo, Kamitsogun)
- 69 *Horeites cantans cantans* (TEMMINCK & SCHLEGEL)
Japanese Bush-Warbler
Uguisu
4
1877-1882
Hokkaido (Tomakomai, Miura Bay), Hondo (Tokyo)
- 70 *Urosphena squameiceps squameiceps* (SWINHOE)
Short-tailed Bush-Warbler
Yabusame
1
?
Hondo (Yokohama)
- 71 *Locustella ochotensis ochotensis* (MIDDENDORFF)
Middendorff's Grasshopper-Warbler
Shimasenniu
2
1875-1876
Hokkaido (Hakodate, Yufutsu)
- 72 *Acrocephalus stentoreus orientalis* (TEMMINCK & SCHLEGEL)
Eastern Great Reed-Warbler
Ôyoshikiri
4
1874-1878
Hokkaido (Hakodate, Sapporo)
- 73 *Acrocephalus bistrigiceps* SWINHOE
Schrenck's Reed-Warbler
Koyoshikiri
19
1876-1882
Hokkaido (Hakodate, Sapporo, Shiraoi)
- 74 *Cisticola juncidis brunniceps* (TEMMINCK & SCHLEGEL)
Japanese Fan-tail Warbler
Sekka
1
1877
Hondo (Tokyo)

Family *TURDIDAE*

- 75** *Turdus aureus aureus* HOLLANDRE
White's Ground-Thrush
Toratsugumi
4
1877-1889
Hokkaido (Sapporo), Hondo (Tokyo)
- 76** *Turdus cardis cardis* TEMMINCK
Japanese Grey Thrush
Kurotsugumi
4
1876-1878
Hokkaido (Hakodate, Sapporo), Kiusiu (Nagasaki)
- 77** *Turdus pallidus* GMELIN
Pale Ouzel
Shirohara
2
1877
Hondo (Tokyo)
- 78** *Turdus obscurus obscurus* GMELIN
Grey-headed Thrush
Mamichajinai
1
?
Hondo (Tokyo)
- 79** *Turdus chrysolaus chrysolaus* TEMMINCK
Japanese Brown Thrush
Akahara
7
1875-1877
Hokkaido (Hakodate), Hondo (Yokohama), Kiusiu (Nagasaki)
- 80** *Turdus naumanni* TEMMINCK
Red-tailed Thrush
Hachijôtsugumi
1
1875
Hokkaido (Hakodate)
- 81** *Turdus eunomus* TEMMINCK
Dusky Thrush
Tsugumi
23
1872-1882
Hokkaido (Hakodate, Sapporo)

- 82** *Monticola solitaria magna* (LA TOUCHE)
 Large Red-bellied Rock-Thrush
Isokiyodori
 2
 1874
 Hokkaido (Hakodate, Shiri-sawabe-mura)
- 83** *Saxicola torquata stejnegeri* (PARROT)
 Japanese Stonechat
Nobitaki
 21
 1874-1882
 Hokkaido (Hakodate, Sapporo, Kameta, Yufutsu, Noboribetsu)
- 84** *Ianthia cyanura cyanura* (PALLAS)
 Siberian Blue-tail
Ruribitaki
 5
 1877-1896
 Hokkaido (Sapporo, Yufutsu), Hondo (Tokyo)
- 85** *Phoenicurus aureus aureus* (PALLAS)
 Daurian Redstart
Jōbitaki
 8
 1875-1877
 Hokkaido (Hakodate), Hondo (Yokohama)
- 86** *Luscinia calliope calliope* (PALLAS)
 Ruby-Throat
Nogoma
 6
 1875-1890
 Hokkaido (Hakodate, Sapporo, Tomakomai), Hondo (Tokyo)
- 87** *Luscinia akahige akahige* (TEMMINCK)
 Japanese Robin
Komadori
 2
 1877
 Hondo (Tokyo)

Family *PRUNELLIDAE*

- 88** *Prunella rubida fervida* (SHARPE)
 Yezo Hedge-Sparrow
Ezo-kayakuguri
 1
 ?
 Hokkaido (Ōnomura)

Family *TROGLODYTIDAE***89** *Troglodytes troglodytes fumigatus* TEMMINCK

Japanese Wren

Misosazai

1

1875

Hokkaido (Hakodate)

90 *Cinclus pallasii pallasii* TEMMINCK

Pallas's Dipper

Kita-kawagarasu

5

1874-1896

Hokkaido (Tomikawa, Isotanigawa, Yurappu, Sapporo)

Family *HIRUNDINIDAE***91** *Hirundo rustica gutturalis* SCOPOLI

Eastern House-Swallow

Tsubame

4

1874-1875

Hokkaido (Hakodate), Hondo (Tokyo, Fukushima-gun)

92 *Delichon urbica dasypus* (BONAPARTE)

Japanese House-Martin

Iwatsubame

5

1858-1877

Hokkaido (Hakodate, Sapporo)

93 *Riparia riparia ijimae* (LÖNNBERG)

Eastern Sand-Martin

Shōdōtsubame

17

1875-1897

Hokkaido (Hakodate, Sapporo)

Family *MICROPODIDAE***94** *Micropus pacificus pacificus* (LATHAM)

Large White-rumped Swift

Amatsubame

1

1875

Hokkaido (Kushiro)

95 *Chaetura caudacuta caudacuta* (LATHAM)

Needle-tailed Swift

Harioamatsubame

8

1874-1875

Hokkaido (Hakodate, Yufutsu, Kamiisogun)

Family *CAPRIMULGIDAE*

96 *Caprimulgus indicus jotaka* TEMMINCK & SCHLEGEL

Japanese Jungle Nightjar

Yotaka

6

1876-1900

Hokkaido (Hakodate, Sapporo), Hondo (Yokohama, Tokyo)

Family *ALCEDINIDAE*

97 *Ceryle lugubris pallida* MOMIYAMA

Yezo Pied Kingfisher

Ezo-yamasemi

9

1877-1890

Hokkaido (Hakodate, Sapporo, Chitose)

98 *Alcedo atthis japonica* BONAPARTE

Japanese Common Kingfisher

Kawasemi

13

1873-1885

Hokkaido (Hakodate, Sapporo, Takashima, Yufutsu)

99 *Halcyon coromanda major* (TEMMINCK & SCHLEGEL)

Japanese Ruddy Kingfisher

Akashobin

6

1875-1882

Hokkaido (Hakodate, Sapporo, Sarumonbetsu)

Family *PICIDAE*

100 *Picus canus jessoensis* STEJNEGER

Japanese Black-naped Green Woodpecker

Yamagera

10

1877-1891

Hokkaido (Hakodate, Sapporo)

101 *Picus awokera awokera* TEMMINCK

Japanese Green Woodpecker

Aogera

1

1879

Hondo (Yokohama)

102 *Dryobates major japonicus* (SEEBOHM)

Japanese Great Spotted Woodpecker

Ezo-akagera

14

?

?

103 *Dryobates major hondoensis* KURODA

Hondo Great Spotted Woodpecker

Akagera

2

?

Hondo (Yokohama)

104 *Dryobates leucotos subcirris* STEJNEGER

Yezo White-backed Woodpecker

Ezo-dakagera

10

1874-1905

Hokkaido (Hakodate, Sapporo, Chitosegun, Ishikari)

105 *Dryobates minor amurensis* (BUTURLIN)

Amur Lesser Spotted Woodpecker

Koakagera

1

1877

Hokkaido (Sapporo)

106 *Dryobates kizuki seebohmi* (HARGITT)

Hargitt's Pigmy Woodpecker

Ezo-kogera

3

1875-1879

Hokkaido (Sapporo, Shikunobemura)

107 *Dryocopus martius martius* (LINNAEUS)

Great Black Woodpecker

Kumagera

5

1877-1882

Hokkaido (Hakodate, Sapporo)

108 *Jynx torquilla japonica* BONAPARTE

Japanese Wryneck

Arisui

5

1877-1898

Hokkaido (Hakodate, Sapporo)

Family *CUCULIDAE*

- 109** *Cuculus canorus telephonus* HEINE
 Japanese Cuckoo
Kakko
 7
 1882-1890
 Hokkaido (Sapporo, Chitose), Hondo (Yokohama)
- 110** *Cuculus optatus optatus* GOULD
 Himalayan Cuckoo
Tsutsudori
 9
 1872-1885
 Hokkaido (Hakodate, Sapporo, Niikap)
- 111** *Hierococcyx fugax hyperythrus* (GOULD)
 Chinese Hawk-Cuckoo
Jiuichi
 1
 ?
 Hondo (Yokohama)

Family *STRIGIDAE*

- 112** *Otus bakkamoena semitorques* TEMMINCK & SCHLEGEL
 Feathered-toed Scops Owl
Ôkonohazuku
 6
 1877
 Hokkaido (Hakodate), Hondo (Yokohama, Tokyo)
- 113** *Otus scops japonicus* TEMMINCK & SCHLEGEL
 Japanese Scops Owl
Konohazuku
 1
 1874
 Hokkaido (Hakodate)
- 114** *Asio otus otus* (LINNAEUS)
 Long-eared Owl
Torafusuku
 2
 1877
 Hokkaido (Niikapu), Hondo (Tokyo)
- 115** *Asio flammeus flammeus* (PONTOPPIDAN)
 Short-eared Owl

Komimizuku

3

1876-1877

Hokkaido (Hakodate)

116 *Ninox scutulata scutulata* (RAFFLES)

Brown Hawk-Owl

Aobazuku

2

1877

Hondo (Tokyo)

117 *Strix uralensis japonica* (CLARK)

Yezo Ural Owl

Ezo-fukuro

6

1876-1905

Hokkaido (Hakodate, Ishikari, Bannaguro)

Family *FALCONIDAE***118** *Falco peregrinus pealei* RIDGWAY

Peale's Peregrine Falcon

Ô-hayabusa

4

1874-1877

Hokkaido (Hakodate, Atsukeshi), Sea of Japan

119 *Falco peregrinus calidus* LATHAM

Siberian Peregrine Falcon

Hayabusa

1

?

Hokkaido (Hakodate)

120 *Falco subbuteo subbuteo* LINNAEUS

Hobby

Chigohayabusa

3

1877-1882

Hokkaido (Sapporo, Sarubuto)

121 *Falco columbarius insignis* (CLARK)

Asiatic Merlin

Kochogenbo

6

1875-1877

Hokkaido (Hakodate), Hondo (Tokyo)

122 *Falco tinnunculus japonensis* TICEHURST

Japanese Kestrel

Chogenbo

I

1876-1877

Hokkaido (Hakodate), Hondo (Tokyo)

123 *Aquila chrysaetos japonica* SEVERTZOW

Japanese Golden Eagle

Inuwashi

I

1898

Hokkaido (Hakodate)

124 *Buteo buteo burmanicus* HUME

Japanese Buzzard

Nosuri

6

1876-1886

The Kurile Islands, Hokkaido (Hakodate, Nemuro), Hondo (Yokohama)

125 *Nisaetus nipalensis orientalis* (TEMMINCK & SCHLEGEL)

Japanese Hawk-Eagle

Kumataka

2

?

Hokkaido (Hakodate)

126 *Circus cyaneus cyaneus* (LINNAEUS)

Hen Harrier

Haiirochuhi

I

1872

Hokkaido (Hakodate)

127 *Accipiter gentilis schvedowi* (MENZBIER)

Siberian Goshawk

Otake

5

1876-1879

Hokkaido (Hakodate)

128 *Accipiter nisus nisosimilis* (TICKELL)

Asiatic Sparrow-Hawk

Haitaka

7

1876-1881

Hokkaido (Hakodate, Sapporo), Hondo (Yokohama, Tokyo)

129 *Accipiter virgatus gularis* (TEMMINCK & SCHLEGEL)

Japanese Sparrow-Hawk

Tsumi

I

1877

Hondo (Tokyo)

130 *Milvus migrans lineatus* (GRAY)

Black-eared Kite

Tobi

10

1875-1876

Hokkaido (Hakodate), Hondo (Yokohama)

131 *Haliaeetus albicilla albicilla* (LINNAEUS)

White-tailed Sea-Eagle

Ojirowashi

3

1874-1877

Hokkaido (Yufutsu, Horoizumigun)

132 *Haliaeetus pelagicus pelagicus* (PALLAS)

Steller's Sea-Eagle

Ôwashi

3

1875-1886

Hokkaido (Nemuro), Peterpaulski

133 *Pernis apivorus japonicus* KURODA

Japanese Honey Buzzard

Hachikuma

2

1874

Hokkaido (Hakodate), Hondo (Yokohama)

Family *PANDIONIDAE***134** *Pandion haliaëtus haliaëtus* (LINNAEUS)

Osprey

Misago

1

1875

Kamtschatka

Family *PLEGADIDAE***135** *Nipponia nippon* (TEMMINCK)

Japanese Crested Ibis

Toki

1

?

?

136 *Threskiornis melanocephalus* (LATHAM)

White Ibis

Kurotoki

1

1874

Hokkaido (Hakodate)

Family *ARDEIDAE***137** *Ardea cinerea rectirostris* GOULD

Eastern Grey Heron

Aosagi

2

1875

Hokkaido (Hakodate)

138 *Egretta alba modesta* (GRAY)

Eastern Great White Egret

Chu-daisagi

2

?

Hokkaido (Hakodate)

139 *Egretta garzetta garzetta* (LINNAEUS)

Little Egret

Kosagi

1

?

Hondo (Yokohama)

140 *Nycticorax nycticorax nycticorax* (LINNAEUS)

Night-Heron

Goisagi

2

1876

Hondo (Tokyo)

141 *Gorsakius goisagi* (TEMMINCK)

Japanese Night-Heron

Mizogoi

1

?

Hondo (Yokohama)

142 *Ixobrychus sinensis sinensis* (GMELIN)

Chinese Little Bittern

Yoshigoi

7

1874-1877

Hokkaido (Hakodate, Sapporo)

143 *Botaurus stellaris stellaris* (LINNAEUS)

Bittern

Sankanogoi

3

1874

Hokkaido (Hakodate)

Family *ANATIDAE***144** *Cygnus cygnus* (LINNAEUS)

Whooper Swan

Ôhakucho

3

1874-1883

Hokkaido (Hakodate)

145 *Anser albifrons albifrons* (SCOPOLI)

White-fronted Goose

Magan

2

1874

Hokkaido (Hakodate), Hondo (Aomori)

146 *Anser erythropus* (LINNAEUS)

Lesser White-fronted Goose

Karigane

1

1874

Hokkaido (Atsu-usu-betsu)

147 *Anser fabalis serrirostris* SWINHOE

Eastern Bean-Goose

Hishikui

4

1874-1877

Hokkaido (Atsu-usu-betsu)

148 *Anser fabalis sibiricus* (ALPHERAKY)

Middendorff's Bean-Goose

Ô-hishikui

1

?

Hondo (Aomori)

149 *Chen hyperboreus hyperboreus* (PALLAS)

Snow-Goose

Hakugan

1

1899

Hondo (Yokohama)

150 *Branta bernicla nigricans* (LAWRENCE)

Black Brent

- Kokugan*
3
1879
Hokkaido (Hakodate)
- 151** *Branta canadensis leucopareia* (BRANDT)
Lesser Canada Goose
Shijukarogan
3
1875-1877
Hokkaido (Hakodate)
- 152** *Tadorna tadorna* (LINNAEUS)
Sheldrake
Tsukushigamo
1
?
Kiusiu (Nagasaki)
- 153** *Anas platyrhynchos platyrhynchos* LINNAEUS
Mallard
Magamo
7
1874-1875
Hokkaido (Hakodate, Sapporo, Yufutsugun, Konuma), Hondo (Aomori), Peter-
paulski
- 154** *Anas poecilorhynchos zonorhynchos* SWINHOE
Eastern Spot-billed Duck
Karugamo
5
1875-1876
Hokkaido (Hakodate), Hondo (Aomori)
- 155** *Querquedula crecca crecca* (LINNAEUS)
Teal
Kogamo
6
1874-1875
Hokkaido (Hakodate, Yufutsu, Barato-unga)
- 156** *Querquedula formosa* (GEORGI)
Spectacled Teal
Tomogamo
3
?
Hondo (Tokyo)
- 157** *Querquedula querquedula* (LINNAEUS)
Garganey
Shimaaji
2

- 1878
Hokkaido (Sapporo)
- 158** *Querquedula falcata* (GEORGI)
Falcated Teal
Yoshigamo
4
1875-1879
Hokkaido (Hakodate, Barato-unga), Peterpaulski
- 159** *Mareca penelope* (LINNAEUS)
Wigeon
Hidorigamo
10
1875-1878
Hokkaido (Hakodate, Sapporo, Barato-unga)
- 160** *Dafila acuta acuta* (LINNAEUS)
Pintail
Onagagamo
4
1874
Hokkaido (Mitsuishigun), Hondo (Aomori)
- 161** *Spatula clypeata* (LINNAEUS)
Shoveller
Hashibirogamo
4
1874-1878
Hokkaido (Hakodate, Sapporo, Yufutsugun), Peterpaulski
- 162** *Aix galericulata* (LINNAEUS)
Mandarin Duck
Oshidori
5
1872-1877
Hokkaido (Hakodate, Sapporo)
- 163** *Nyroca ferina ferina* (LINNAEUS)
Pochard
Hoshihajiro
2
1874
Hokkaido (Hakodate)
- 164** *Nyroca rufa baeri* (RADDE)
Siberian White-eyed Duck
Akahajiro
1
?
Hokkaido (Hakodate)

- 165** *Nyroca fuligula* (LINNAEUS)
Tufted Duck
Kinkurohajiro
6
1875-1878
Hokkaido (Hakodate, Sapporo), Hondo (Yokohama)
- 166** *Nyroca marila mariloides* (VIGORS)
Eastern Scaup-Duck
Suzugamo
6
1876
Hokkaido (Hakodate)
- 167** *Bucephala clangula clangula* (LINNAEUS)
Golden-eye
Hôjiro-gamo
7
1878
Hokkaido (Hakodate, Sapporo)
- 168** *Clangula hyemalis* (LINNAEUS)
Long-tailed Duck
Kôri-gamo
3
1875
Hokkaido (Hakodate)
- 169** *Melanitta fusca stejnegeri* (RIDGWAY)
Eastern Velvet Scoter
Birôdokinuro
4
?
Hokkaido (Hakodate)
- 170** *Melanitta nigra americana* (SWAINSON)
American Black Scoter
Kurogamo
2
1877-1881
The Kurile Islands, Hokkaido (Hakodate)
- 171** *Histrionicus histrionicus pacificus* BROOKS
Pacific Harlequin Duck
Shinorigamo
5
1876
Hokkaido (Hakodate, Yaoimura, Shiribetsumura)
- 172** *Polysticta stelleri* (PALLAS)
Steller's Eider

Kokewatagamo

2

1875

The Kurile Islands, Peterpaulski

173 *Mergellus albellus* (LINNAEUS)

Smew

Mikoaia

4

?

Hokkaido (Hakodate)

174 *Mergus serrator* LINNAEUS

Red-breasted Merganser

Umiaia

8

1876

Hokkaido (Hakodate, Shiribetsu, Yaoimura), Hondo (Aomori)

175 *Mergus merganser merganser* LINNAEUS

Goosander

Kawaaisa

1

1878

Hokkaido (Sapporo)

Family *PHALACROCORACIDAE***176** *Phalacrocorax capillatus* (TEMMINCK & SCHLEGEL)

Temminck's Cormorant

Umiu

3

1874

Hokkaido (Hakodate, Otaru)

177 *Phalacrocorax pelagicus pelagicus* PALLAS

Pelagic Shag

Himeu

7

?

Hokkaido (Hakodate, off Arikawa)

Family *PROCELLARIIDAE***178** *Oceanodroma leucorhoa leucorhoa* (VIEILLOT)

Leach's Fork-tailed Petrel

Koshijiroumitsubane

3

1876

The Kurile Islands (Shikotan)

Family *DIOMEDEIDAE***179** *Diomedea albatrus* PALLAS

Steller's Albatross

Ahodori

5

1874-1877

Hokkaido (Hakodate, off Arikawa)

Family *PODICIPIDAE***180** *Podiceps griseigena holboellii* REINHARDT

Eastern Red-necked Grebe

Akaerikaitsuburi

2

?

Wladivostok

181 *Podiceps auritus* (LINNAEUS)

Slavonian Grebe

Mimikaitsuburi

3

1876

Kiusiu (Nagasaki), Manchuria

182 *Podiceps nigricollis nigricollis* BREHM

Black-necked Grebe

Hajirokaitsuburi

3

1872-1877

Hokkaido (Hakodate), Hondo (Tokyo)

183 *Podiceps ruficollis japonicus* HARTERT

Japanese Little Grebe

Kaitsuburi

5

1877-1900

Hokkaido (Hakodate, Otaru, Yurappu)

Family *COLYMBIDAE***184** *Colymbus arcticus viridigularis* (DWIGHT)

Siberian Black-throated Diver

Ôhamu

2

1877

Hokkaido (Hakodate)

185 *Colymbus arcticus pacificus* LAWRENCE

Pacific Black-throated Diver

Shiroeri-chamu

2

1879

Hokkaido (Hakodate)

186 *Colymbus stellatus* PONTOPPIDAN

Red-throated Diver

Ali

3

1872-1894

Hokkaido (Hakodate, Tokachi)

Family *COLUMBIDAE***187** *Streptopelia orientalis orientalis* (LATHAM)

Eastern Turtle-Dove

Kijibato

4

1874-1878

Hokkaido (Hakodate, Sapporo)

188 *Sphenocercus sieboldii sieboldii* (TEMMINCK)

Japanese Green Pigeon

Aobato

4

1874-1878

Hokkaido (Hakodate, Sapporo)

Family *SCOLOPACIDAE***189** *Phalaropus fulicarius* (LINNAEUS)

Grey Phalarope

Haiirohivashishigi

2

1875

The Kurile Islands, Hokkaido (Hakodate)

190 *Lobipes lobatus* (LINNAEUS)

Red-necked Phalarope

Akaerihivashishigi

4

1877

Hokkaido (Hakodate)

191 *Tringa ochropus* LINNAEUS

Green Sandpiper

- Kusashigi*
3
1871
Hokkaido (Hakodate), Hondo (Tokyo)
- 192** *Tringa glareola* LINNAEUS
Wood Sandpiper
Takabushigi
13
1874-1878
The Kurile Islands, Hokkaido (Hakodate, Sapporo, Yufutsu, Barato-unga)
- 193** *Tringa incana brevipes* (VIEILLOT)
Asiatic Wandering Tattler
Kiashishigi
20
1874-1877
Hokkaido (?)
- 194** *Tringa hypoleucos* LINNAEUS
Common Sandpiper
Isoshigi
11
1874-1882
Hokkaido (Hakodate, Sapporo, Kamiisogun)
- 195** *Tringa erythropus* (PALLAS)
Dusky Redshank
Tsurushigi
2
1875
Hokkaido (Hakodate, Oshamanbe)
- 196** *Glottis nebularius* (GUNNERUS)
Greenshank
Aoashishigi
8
1875-1882
Hokkaido (Hakodate, Sapporo, Yurappu, Tomakomai, Barato unga)
- 197** *Limosa limosa melanuroides* GOULD
Eastern Black-tailed Godwit
Oguroshigi
8
1871-1882
Hokkaido (Hakodate, Sapporo, Tomakomai, Yurappu)
- 198** *Limosa lapponica baueri* NAUMANN
Eastern Bar-tailed Godwit
Osorihashishigi
11

1874-1880

Hokkaido (Hakodate, Zenibako, Akkeshi), Hondo (Tokyo)

199 *Numenius arquatus orientalis* BREHM

Indian Curlew

Daishakushigi

1

?

Hondo (Yokohama)

200 *Numenius cyanopus* VIEILLOT

Australian Curlew

Hōroku-shigi

5

1876

The Kurile Islands (Etorofu), Hokkaido (Hakodate)

201 *Numenius phaeopus variegatus* (SCOPOLI)

Eastern Whimbrel

Chūshakushigi

3

1876

Hokkaido (Hakodate, Yufutsu)

202 *Calidris tenuirostris* (HORSFIELD)

Great Knot

Ohashigi

1

?

Hokkaido (Hakodate)

203 *Erolia alpina sakhalina* (VIEILLOT)

Eastern Dunlin

Hamashigi

26

1874-1878

Hokkaido (Hakodate, Yufutsu, Akkeshi, Nemuro), Hondo (Yokohama, Tokyo)

204 *Pisobia minuta ruficollis* (PALLAS)

Eastern Little Stint

Tōnen

9

1874

Hokkaido (Hamanaka, Kakemamura)

205 *Pisobia minutilla subminuta* (MIDDENDORFF)

Long-toed Stint

Hisarishigi

3

1874-1875

Hokkaido (Hakodate, Tomakomai, Barato-unga)

- 206** *Pisobia acuminata* (HORSFIELD)
 Siberian Pectoral Sandpiper
Uzurashigi
 8
 1874-1875
 Hokkaido (Hakodate, Tomakomai, Yufutsu, Hamanaka, Atsushibetsu)
- 207** *Eurynorhynchus pygmeus* (LINNAEUS)
 Spoon-billed Sandpiper
Herashigi
 2
 1874-1875
 Hokkaido (Hakodate, Yufutsu)
- 208** *Crocethia alba* (PALLAS)
 Sanderling
Miyubishigi
 4
 1874
 Hokkaido (Yufutsu, Akkeshi)
- 209** *Scolopax rusticola* LINNAEUS
 Woodcock
Yamashigi
 6
 1875-1890
 Hokkaido (Hakodate, Sapporo)
- 210** *Capella solitaria* (HODGSON)
 Solitary Snipe
Aoshigi
 3
 1878
 Hokkaido (Sapporo)
- 211** *Capella gallinago gallinago* (LINNAEUS)
 Common Snipe
Tashigi
 13
 1874-1877
 Hokkaido (Hakodate, Yufutsu, Izari), Hondo (Tokyo), Kiusiu (Nagasaki)
- 212** *Capella hardwickii* (GRAY)
 Latham's Snipe
Ôjishigi
 17
 1874-1891
 Hokkaido (Hakodate, Sapporo, Yufutsu, Sarubuto)
- 213** *Rostratula benghalensis benghalensis* (LINNAEUS)
 Painted Snipe

Tamashigi

1

?

Hondo (Kazusa)

Family *CHARADRIIDAE***214** *Squatarola squatarola hypomelaena* (PALLAS)

Eastern Grey Plover

Daizen

3

1874

Hokkaido (Akkeshi, Nemuro)

215 *Pluvialis apricarius fulvus* (GMELIN)

Eastern Golden Plover

Munaguro

17

1874-1877

Hokkaido (Hakodate, Sapporo, Yufutsu, Akkeshi, Oshonnai-mura), Hondo (Tokyo)

216 *Charadrius mongolus mongolus* PALLAS

Mongolian Plover

Medaichidori

4

1877

Hokkaido (Hakodate, Otarunai-gawa), Hondo (Tokyo)

217 *Charadrius alexandrinus dealbatus* (SWINHOE)

Eastern Kentish Plover

Shirochidori

2

1876-1877

Hokkaido (Hakodate), Hondo (Aomori)

218 *Charadrius dubius curonicus* GMELIN

Little Ringed Plover

Kochidori

1

?

Hokkaido (Hakodate)

219 *Charadrius placidus* GRAY

Long-billed Ringed Plover

Ikaruchidori

7

1874-1877

Hokkaido (Hakodate, Sapporo)

220 *Vanellus vanellus* (LINNAEUS)

Lapwing

Tageri

2

1879

Hokkaido (Hakodate), Hondo (Niigata)

221 *Microsarcops cinereus* (BLYTH)

Grey-headed Lapwing

Keri

1

1875

Hondo (Tokyo)

222 *Haematopus ostralegus osculans* SWINHOE

Eastern Oystercatcher

Miyakodori

1

1874

Hokkaido (Akkeshi)

223 *Arenaria interpres interpres* (LINNAEUS)

Turnstone

Kyojoshigi

3

1874-1877

Hokkaido (Hakodate), Hondo (Tokyo)

Family *LARIDAE***224** *Sterna hirundo longipennis* NORDMANN

Nordmann's Tern

Ajisashi

1

1876

Hokkaido (Hakodate)

225 *Larus schistisagus* STEJNEGER

Slaty backed Gull

Ôsegurokamome

4

?

The Kurile Islands, Hokkaido (Hakodate), Hondo (Yokohama)

226 *Larus crassirostris* VIEILLOT

Black-tailed Gull

Umineko

8

1872-1899

Hokkaido (Hakodate, Zenibako, Nedanaimura)

227 *Larus glaucescens* NAUMANN ??

Glaucous-winged Gull

Washikamome

2 young

?

Hokkaido (Hakodate)

228 *Larus hyperboreus* GUNNERUS

Glaucous Gull

Shirokamome

2

1896

Hokkaido (Hakodate)

229 *Larus ridibundus sibiricus* BUTURLIN

Kamtschatkan Black-headed Gull

Yurikamome

7

1875-1877

Hokkaido (Hakodate, Barato-unga), Hondo (Aomori)

230 *Rissa tridactyla pollicaris* STEJNEGER

Pacific Kittiwake

Mitsuyubikamome

1

1874

Hokkaido (Nemuro)

Family *ALCIDAE***231** *Uria aalge inornata* SALOMONSEN

Bering Island Guillemot

Umigarasu

4

1870-1877

The Kurile Islands, Hokkaido (Hakodate)

232 *Uria carbo* (PALLAS)

Sooty Guillemot

Keimafuri

2

1875

Hokkaido (Hakodate)

233 *Uria columba columba* (PALLAS)

Pigeon Guillemot

Umibato

2

?

The Kurile Islands

234 *Uria columba snowi* (STEJNEGER)

Snow's Pigeon Guillemot

Chishima-umibato

1

1881

The Kurile Islands

235 *Brachyramphus marmoratus perdix* (PALLAS)

Partridge Auk

Madaraumisuzume

2

1875

Hokkaido (Hakodate)

236 *Synthliboramphus antiquus* (GMELIN)

Ancient Auk

Umisuzume

9

1874-1887

The Kurile Islands, Hokkaido (Hakodate), Hondo (Tokyo)

237 *Synthliboramphus wumizusume* (TEMMINCK)

Japanese Auk

Kanmuriumisuzume

2

1876-1877

Hokkaido (Hakodate), Kiusiu (Nagasaki)

238 *Aethia cristatella* (PALLAS)

Crested Auk

Etorofuumisuzume

1

1875

The Kurile Islands

239 *Aethia pygmaea* (GMELIN)

Whiskered Auk

Shirahigeumisuzume

3

?

The Kurile Islands

240 *Phaleris psittacula* (PALLAS)

Paroquet Auk

Umioumu

1

?

The Kurile Islands

241 *Cerorhinca monocerata* (PALLAS)

Horn billed Puffin

Uto

9

1876

Hokkaido (Hakodate, off Arikawa)

242 *Lunda cirrhata* (PALLAS)

Tufted Puffin

Eitopirika

4

1876

The Kurile Islands

Family *BALEARICIDAE***243** *Fratercula corniculata* (NAUMANN)

Horned Puffin

Tsunomedori

2

?

The Kurile Islands (Shikotan)

244 *Grus japonensis* (P. L. S. MÜLLER)

Japanese Crane

Tancho

1

?

Hokkaido (Sapporo)

245 *Grus monachus* TEMMINCK

Hooded Crane

Nabezuru

1

1874-1878

Hokkaido (Sapporo), Hondo (Tokyo)

246 *Grus vipio* PALLAS

White-naped Crane

Manazuru

1

1877

Hondo (Tokyo)

Family *RALLIDAE***247** *Rallus aquaticus indicus* BLYTH

Eastern Water-Rail

Kuina

12

1877-1878

Hokkaido (Hakodate, Sapporo), Kiusiu (Nagasaki)

248 *Porzana noveboracensis exquisita* SWINHOE

Swinhoe's Crane

Shimakuina

I

1874

Hokkaido (Yufutsu)

249 *Porzana fusca erythrothorax* (TEMMINCK & SCHLEGEL)

Japanese Ruddy Crake

Iikuina

9

1876-1877

Hokkaido (Hakodate, Sapporo), Kiusiu (Nagasaki)

250 *Gallinula chloropus indicus* BLYTH

Indian Water-Hen

Ban

5

1876-1878

Hokkaido (Hakodate, Sapporo), Hondo (Tokyo)

251 *Fulica atra atra* LINNAEUS

Coot

Ôban

I

1886

Hokkaido (Kamedagun Akagawamura)

Family *TETRAONIDAE***252** *Tetrastes bonasia vicinitas* RILEY

Japanese Hazel Grouse

Yezoraichô

4

?

Hokkaido (Hakodate, Raiden-goshi)

Family *PHASIANIDAE***253** *Coturnix coturnix japonica* TEMMINCK & SCHLEGEL

Japanese Quail

Uzura

1874

Hokkaido (Hakodate, Kamedagun)

254 *Phasianus versicolor versicolor* VIEILLOT

Green Pheasant

Kiji

7

1864-1878

Hondo (Aomori, Nanbu, Musashi)

255 *Syrmaticus soemmerringii scintillans* (GOULD)

Hondo Copper Pheasant

Yamadori

2

1875

Hondo (Tokyo, Yokohama)

Specific Names Adopted By BLAKISTON

1. *Corvus corax*, L. 2. *Corvus macrorhynchus japonensis*, BP. 3. *Corvus corone*, L. 4. *Corvus astinator*, GAD. 5. *Corvus dauricus*, PALL. 6. *Pica caudata*, KEYSERL. & BLAS. 7. *Nucifraga caryocatactes*, L. 8. *Garrulus brandti*, EYESM. 9. *Garrulus japonicus*, BP. 10. *Sturnus cineraceus*, T. 11. *Sturnia pyrrhogenys*, T. & S. 12. *Coccothraustes vulgaris*, PALL. 13. *Coccothraustes personatus*, P. & S. 14. *Fringilla kawaraha*, T. 15. *Fringilla kawaraha*, T. 16. *Fringilla spinus*, L. 17. *Fringilla linaria*, L. 18. *Fringilla linaria*, L. 19. *Carpodacus sanguinolentus*, T. & S. 20. *Pyrrhula griseiventris*, LAFR. 21. *Carpodacus roseus*, PALL. 22. *Loxia curvirostra*, L. 23. *Fringilla montifringilla*, L. 24. *Montifringilla brunneinucha*, BRANDT. 25. *Passer montanus*, L. 26. *Passer montanus*, L. 27. *Passer rutilans*, T. 28. *Emberiza aureola*, PALL. 29. *Emberiza elegans*, T. 30. *Emberiza personata*, T. 31. *Emberiza sulphurata*, T. & S. 32. *Emberiza ciopsis*, BP. 33. *Emberiza fucata*, PALL. 34. *Emberiza rustica*, PALL. 35. *Emberiza variabilis*, T. 36. *Emberiza yessoensis*, SW. 37. *Emberiza schoeniclus palustris*, SAVI. 38. *Alauda arvensis japonica*, T. & S. 39. *Anthus maculatus*, HODG. 40. *Anthus spinoletta japonicus*, T. & S. 41. *Motacilla boarula melanocephala*, (PALL.) 42. *Motacilla lugens*, KITTLITZ. 43. *Motacilla japonica*, SW. 44. *Zosterops japonica*, T. & S. 45. *Certhia familiaris*, L. 46. *Sitta caesia albifrons*, (TACZ.); *Sitta caesia amurensis*, (SW.) 47. *Sitta caesia amurensis*, (SW.) 48. *Parus atriceps*, HORSF. 49. *Parus palustris japonicus*, SEE. 50. *Parus varius*, T. & S. 51. *Parus ater pekinensis*, L. 52. *Acredula caudata*, (L.) 53. *Acredula caudata*, (L.) 54. *Lanius superciliosus*, L. 55. *Lanius bucephalus*, BP. 56. *Ampelis garrulus*, (L.) 57. *Ampelis japonicus*, (SIEB.) 58. *Hypsipetes amaurotis*, (T.) 59. *Hypsipetes amaurotis*, (T.) 60. *Pericrocotus cinereus*, LAFR. 61. *Terpsiphone princeps*, (T.) 62. *Muscicapa latirostris*, ROFFLES. 63. *Muscicapa sibirica*, GM. 64. *Xanthopygia narcissina*, T. 65. *Niltava cyanomelaena*, (T.) 66. *Phylloscopus xanthodryas*, SW. 67. *Phylloscopus xanthodryas*, SW. 68. *Phylloscopus coronatus*, (T. & S.) 69. *Cettia cantans*, (T. & S.) 70. *Cettia squamiceps*, (SW.) 71. *Locustella ochotensis*, (MIDD.) 72. *Acrocephalus orientalis*, (T. & S.) 73. *Acrocephalus bistrigiceps*, SW. 74. *Cisticola cisticola*, SHARPE. 75. *Geocichla varia*, (PALL.) 76. *Merula cardis*, (T.) 77. *Turdus pallida*, (GM.) 78. *Merula pallida*, (GM.) 79. *Merula chrysolaus*, (T.) 80. *Turdus naumanni*, T. 81. *Turdus fuscatus*, PALL. 82. *Monticola cyaneus solitaria*, (MÜLL.) 83. *Pratincola maura*, (PALL.) 84. *Tarsiger cyanurus*, PALL. 85. *Ruticilla aurea*, (PALL.) 86. *Erithacus calliope*, (PALL.) 87. *Erithacus akahige*, T. & S. 88. *Accentor rubidus*, T. & S. 89. *Troglodytes fumigatus*, T. 90. *Cinclus pallasii*, T. 91. *Hirundo rustica gutturalis*, SCOP. 92. *Chelidon dasyptus*, BONAPARTE. 93. *Cotyle riparia*, (L.) 94. *Cypselus pacificus*, LATH. 95. *Chaetura caudata*, LATH. 96. *Caprimulgus jotaka*, T. & S. 97. *Ceryle guttata*, VIGORS. 98. *Alcedo ispida bengalensis*, (GM.) 99. *Halcyon coromanda*, BODD. 100. *Geococcyx canis*, (GM.) 101. *Geococcyx awokera*, (T. & S.) 102. *Picus major japonicus*, L. 103. *Picus major japonicus*, L. 104. *Picus leucocotus*, BECHST. 105. *Picus minor*, L. 106. *Iyngipicus kisuki*, (T.) 107. *Picus martius*, L. 108. *Jynx torquilla*, L. 109. *Cuculus cinereus*, L. 110. *Cuculus intermedius*, VAHL. 111. *Heiropus hyperithrus*, GLD. 112. *Scops semitorques*, (T. & S.) 113. *Scops scops*, L. 114. *Strix otus*, L. 115. *Strix brachyotus*, FORSTER. 116. *Ninox scutulata*, L.

- tulata, RAFFL. 117. *Strix uralensis*, PALL. 118. *Falco peregrinus*, TUNST. 119. *Falco peregrinus*, TUNST. 120. *Falco subbuteo*, L. 121. *Falco aesalon*, GM. 122. *Falco tinnunculus japonicus*, T. & S. 123. *Aquila chrysaetos*, L. (?) 124. *Buteo vulgaris*, LEACH. 125. *Spizaetus nipalensis*, HODGS. 126. *Circus cyaneus*, L. 127. *Accipiter palumbarius*, (L.) 128. *Accipiter nisus*, (L.) 129. *Accipiter quilaris*, T. & S. 130. *Milvus ater melanotis*, T. & S. 131. *Haliaetus albicilla*, (L.) 132. *Haliaetus pelagicus*, PALL. 133. *Perisoreus inornatus*, (L.) (?) 134. *Pandion haliaetus*, (L.) 135. *Ibis nippon*, T. & S. 136. *Ibis melanocephala*, L. 137. *Ardea cinerea*, L. 138. *Ardea alba modesta*, (J. E. GRAY.) 139. *Ardea garzetta*, L. 140. *Nycticorax nycticorax*, L. 141. *Nycticorax goisagi*, T. 142. *Botaurus sinensis*, GM. 143. *Botaurus stellaris*, L. 144. *Cygnus musicus*, BECHST. 145. *Anser albifrons*, SCOP. 146. *Anser minutus*, NAUM. 147. *Anser segetum*, GM. 148. *Anser segetum*, GM. 149. *Anser hyperboreus*, PALL. 150. *Anser nigricans*, LAW. 151. *Anser hutchinsi*, RICH. 152. *Tadorna cornuta*, (GM.) 153. *Anas boschas*, L. 154. *Anas zonorhyncha*, SW. 155. *Anas crecca*, L. 156. *Anas formosa*, GEORGI. 157. *Anas circia*, L. 158. *Anas falcata*, GEORGI. 159. *Anas penelope*, L. 160. *Anas acuta*, L. 161. *Anas clypeata*, L. 162. *Anas galariculata*, L. 163. *Fuligula ferina*, L. 164. *Fuligula bari*, RADDE. 165. *Fuligula cristata*, L. 166. *Fuligula marila*, L. 167. *Fuligula claugula*, L. 168. *Fuligula glacialis*, L. 169. *Fuligula fusca*, (L.) 170. *Fuligula americana*, SWA. 171. *Fuligula historionica*, (L.) 172. *Somateria stelleri*, PALL. 173. *Mergus albellus*, L. 174. *Mergus serrator*, L. 175. *Mergus merganser*, L. 176. *Phalacrocorax capillatus*, (T. & S.) 177. *Phalacrocorax pelagicus*, PALL. 178. *Procellaria leachi*, T. 179. *Diomedea derogata*, SW. 180. *Podiceps rubricollis*, GM. 181. *Podiceps cornutus*, (GM.) 182. *Podiceps nigricollis*, BREHM. 183. *Podiceps minor*, (GM.) 184. *Colymbus arcticus*, L. 185. *Colymbus arcticus*, L. 186. *Colymbus septentrionalis*, L. 187. *Tartus orientalis*, LATH. 188. *Treson sieboldi*, (T.) 189. *Phalaropus furcarius*, (L.) 190. *Phalaropus hyperboreus*, L. 191. *Totanus ochropus*, (L.) 192. *Totanus glareola*, (L.) 193. *Totanus incanus*, GM. 194. *Totanus hypoleucus*, (L.) 195. *Totanus fuscus*, (L.) 196. *Totanus glottis*, (L.) 197. *Totanus glottis*, L.; *Limosa melanura*, LEISLER. 198. *Limosa rufa uropigialis*, (GLD.) 199. ? 200. *Numenius cyanopus*, VIEILL. 201. *Numenius phaeopus*, LATH. 202. *Tringa crassirostris*, T. & S. 203. *Tringa alpina*, L. 204. *Tringa minuta*, LEISLER. 205. *Tringa subminuta*, MIDD. 206. *Tringa acuminata*, HORSF. 207. *Tringa pygmaea*, L. 208. *Tringa arenaria*, L. 209. *Scolopax rusticola*, L. 210. *Scolopax solitaria*, HODG. 211. *Scolopax gallinago*, L.; *Gallinago scolopacina*, BP. 212. *Scolopax australis*, LATH. 213. *Rhynchaea capensis*, L. 214. *Charadrius helveticus*, (L.) 215. *Charadrius fulvus*, GM. 216. *Charadrius mongolicus*, PALL.; *Charadrius cantianus*, LATH. 217. *Charadrius cantianus*, LATH. 218. *Charadrius minor*, WOLF. & MEYER. 219. *Charadrius placida*, GRAY. 220. *Vanellus cristatus*, WOLF. & MEYER. 221. *Lobivanellus cinereus*, BLY. 222. *Haematopus osculans*, SW. 223. *Streptopelia interpres*, L. 224. *Sterna longipennis*, NORDM. 225. *Larus marinus*, L. 226. *Larus crassirostris*, VIEILL. 227. *Larus glaucescens*, NAUM. 228. *Larus glaucus*, BRÜNNICH. 229. *Larus ridibundus*, L. 230. *Rissa tridactyla*, L. (?) 231. *Alca troile*, L. (?) 232. *Alca carbo*, PALL. 233. *Alca columba*, (PALL.) 234. *Uria snowi*, (STEJN.) 235. *Alca mar-morata*, GM. 236. *Alca antiqua*, GM. 237. *Alca wumisuzume*, T. 238. *Fratercula cristatella*, PALL. 239. *Fratercula pygmaea*, GM. 240. *Fratercula psittacula*, PALL. 241. *Fratercula monocerata*, PALL. (young) 242. *Fratercula cirrhata*, PALL. 243. *Fratercula corniculata*, (NAUM.) 244. *Grus leucauchen*, T. 245. *Grus monachus*, T. 246. *Grus cinerea*, BECHST. 247. *Rallus aquaticus indicus*, BLYTH. 248. *Crex undulata*, (TACZ.) 249. *Crex fusca erythrorhax*, (T. & S.) 250. *Gallinula chloropus*, (L.) 251. *Fulica atra*, L. 252. *Tetra bonasia*, (L.) 253. *Coturnix japonica*, T. & S. 254. *Phasianus versicolor*, VIEILL. 255. *Phasianus soemmerringi*, T.

A BRIEF BIOGRAPHY OF CAPTAIN BLAKISTON

BY

TETSUO INUKAI

Captain BLAKISTON has been rather well known as an ornithologist for his invaluable contributions to the avifauna of Japan and at the same time as a zoologist who found that an important line of animal distribution coincides with the Tsugaru Strait which separates Hokkaido from Hondo, Japan, that is BLAKISTON's line.

However BLAKISTON was in reality a business man who first appeared in 1861 in Hakodate, Hokkaido, to engage in commerce. He resided there for 23 years until 1884. During these years he was known not only as an amateur ornithologist, in the best sense of the word, who did much to encourage scientific study in Japan but also as a leader of business at that time who assisted largely in the development of Japanese civilization. As to his scientific works they have often been quoted and are well known. We shall turn our attention at present to sketch briefly the main outline of the most important but little known events in his life in Japan, particularly in Hokkaido.

Captain THOMAS WRIGHT BLAKISTON was born as the son of Sir BLAKISTON at Lymington, Hants, England, on December the 27th, 1832. Having been educated in his youth at the Royal Military Academy he accepted an appointment in the Royal Artillery to begin his military career. Then in the Crimean War he went actually to the front and as a result of his distinguished service there he was promoted to the rank of Captain; thus Captain BLAKISTON afterwards. Soon after this, in 1857, he was sent to Canada where he engaged in exploratory surveying in the country between Canada and Rocky Mountains as a member of the Palliser Expedition. This gave him opportunity to gain his first footing in the scientific world. This interesting part of the country offered him enough subjects to satisfy his thirst for research which was one of his essential traits. A series of works "On the Birds of the Interior of British North America", in the "Ibis" for 1861, 1862 and 1863 were the ornithological results of his stay in Canada.

The year 1861 found BLAKISTON surveying the upper and the middle parts of the River Yangtze-kiang in China. Without doubt the natives inhabiting the upper region of the river and also many curious kind of birds of the country drew his keen sighted attraction not a little. "Yangtze-kiang" which was published by the Royal Geographical Society of London in 1862 was the report of his untiring study and for this he obtained the honour of being made a recipient of the Royal Medal of the Society.

Shortly after this he left China to pay a brief visit home. However by a curious turn of events he then intended to begin a business engaging in the timber trade in Asia where he had been deeply impressed during the last sojourn. Having prepared the small vessels, loaded with the boilers and the machinery of a sawmill and with provisions, his secretary and engineer, JAMES SCOTT, was sent out by the way of India to the Far East while BLAKISTON came out with his wife through Siberia and Amur Land where there was no travel facility except by horse carriage. It is regretted that we do not know of any account of this journey in Siberia which might be full of interesting features at such early days. To BLAKISTON's great disappointment the proposal of establishing the timber factory in the Coast Province of Amur was positively refused by the Russian authorities. Consequent upon this he came with his things to settle to Hakodate, one of the three ports opened to foreign commerce under the treaties of 1854 and 1859, thus beginning his career in Japan. This was at the end of 1862.

The sawmill machinery BLAKISTON brought was too large and too powerful to find an adequate supply of logs in the immediate vicinity of Hakodate. Transportation was then extremely limited in Hokkaido although the country was covered with thick forest of fir and mixed stand of hardwoods of good quality. The log stocks in Hakodate were run through by the sawmill very soon and so the factory had much time to spare. Consequently having worked only part time until 1879 the plant was moved to Kushiro on the southeastern coast. At any rate the plan of a timber factory, the production of which he intended to export to China on a large scale was obviously impracticable. BLAKISTON, MARR & Co. (in conjunction with Mr. MARR) now commenced to engage in general trade in Hakodate. Three vessels under his management, namely the Barque *Akindo* with Capt. SCOTT, the Barque *Asuri* with Capt. PATON and the Brigantine *Khankai* with Capt. WHITE (later replaced by J. WILL) were engaged in the ordinary transportation around Hokkaido, sometimes sailing for Yokohama and Nagasaki, and oftentimes for ports in China from Chefoo in the north to Hongkong in the south. As the civil war in Japan at that time was still raging the ships sometimes served for the transportation of weapons from

Yokohama to the northeastern part as foreign ships were then safe from capture by any local Japanese authorities. On the other hand many lives were saved from slaughter in the Hakodate Civil War thanks to a swift escape in one of the BLAKISTON ships to the opposite side of the strait. It was also at this time (around 1868) that many houses of Japanese friends could be protected from plunder and the devastating fire by BLAKISTON who insisted that they were his property because he had diplomatic privileges. Much credit was accorded to him ever after.

Mr. YANAGIDA, one of the great merchants at that period who had a particular friendship with BLAKISTON, used the vessels for the importation of the products of southern Japan, oranges, etc. to Hokkaido or for the exportation of Hokkaido goods to Hondo, such as salted salmon, seaweeds and the like gaining a big profit thereby.

Before long BLAKISTON became a kind adviser in business in Hakodate as well as a good business man himself. For instance in 1866 Mr. SEIICHI MOMOKAWA met with the Captain in Aomori and followed him to Hakodate to study surveying, mathematics and foreign languages as BLAKISTON quite willingly instructed any person in modern foreign manner which had yet had little influence upon the old Japanese custom. Among other things of interest there remains a funny episode in BLAKISTON's career concerning the Russian priest, NICHOLAI with whom he disagreed greatly. Mr. YANAGIDA once had some trouble with this priest who had, shortly before, settled in Hakodate intending to introduce Christianity among Japanese people and came every day to attend YANAGIDA's private school, "Hokumonsha-Kyojiku" in Hakodate. Wishing to avoid the undesirable odium of propagating a heretical religion at that time Mr. YANAGIDA consulted with BLAKISTON as to how to get rid of the priest who did not pay any attention to his refusal of admission to the school. BLAKISTON told Mr. YANAGIDA to kick out the priest when he did not obey but NICHOLAI looked too gentle and weak to merit such treatment. Subsequently BLAKISTON made a notice board for the school writing in English "The entrance is forbidden for the Russian priest". This was also unheeded. At last they allowed the priest to do as he liked.

BLAKISTON was a real gentleman of total abstinence from drinking and smoking; his only fault was quick-temperedness. Because of this his wife who was said to be somewhat hysteric went back to England. For the same reason he had trouble with the local government in Hakodate which summoned him to appear in a court of inquiry into the suicide of his servant who killed himself as a result of a severe scolding for some misdeed.

BLAKISTON, the good business leader in Hakodate often held a race of

small Japanese sailing boats in Hakodate bay to encourage the improvement of the boats and offered a high prize for the winners. In 1870 Mr. KAHEI NAKAGAWA by BLAKISTON's advice utilized the abandoned moat around the old Goryokaku castle for a natural ice manufacturing field. This was the first undertaking of ice making so far in Japan. Furthermore it was BLAKISTON who first commenced scientific meteorological observations in Japan following western methods. There had been however before him the Hakodate Meteorological Observatory which was established in 1859 but ceased activity for some 7 years until 1868. In that year he started observations by the English method, having as equipment FORTIN's barometer, maximum and minimum thermometer, hyetometers, hygrometers, etc., which were all new to the country. In addition to this BLAKISTON, a surveyor as he was, privately made the original plan for the city water supply for Hakodate which was built later in 1978 by the government. The first pier of Hakodate port was also constructed after BLAKISTON's design.

However, in business BLAKISTON was not successful. It is said that the amount of money put into his business since he left England amounted to some hundred million yen. It will probably be new to many to know that BLAKISTON made the intimate acquaintance of Mr. J. SNOW¹⁾ who was a seaotter hunter in the northern seas, in strict sense a big seaotter poacher in the forbidden Kurilian seas. BLAKISTON found Mr. SNOW in 1876 in Yokohama having nothing to do after the loss of his second hunting boat and invited him to Hakodate to work with him. In 1877 Mr. SNOW's schooner which was built with BLAKISTON's funds in Hakodate, "*the Ottosei*" sailed out for seaotter hunting.

About this period BLAKISTON's finances were anything but good. In 1875 he issued private checks in Hakodate which were immediately prohibited by the Japanese government. Although the larger part of his funds were spent for his business, it must be borne in mind that he used a large amount of money in exploring and surveying the then little known Hokkaido and also in collecting the skins of birds. He prospected not only all the routes around Hokkaido but also made explorations deep inland. Even the southern Kurile Islands were visited by him. His enthusiasms for exploration and collection knew no bounds and they were practically for worth while things so far as his life in Hokkaido is concerned. Thus his invaluable contribution to the knowledge of nature and people in Hokkaido was secured.

The results of BLAKISTON's scientific studies were occasionally published

1) Mr. SNOW was an important man on the other hand as the first practical surveyor of the hitherto unknown Kurile groups and the enthusiastic researcher of the Kurile Ainu which revealed essential keys to the understanding of the general Ainu problem.

in Japan, England and America¹⁾. There are about ~~10 papers~~ on birds. Among them "On the Ornithology of Northern Japan" in the Ibis for 1862, the checklist of birds of Japan made in conjunction with Mr. PRYER under the title "Catalogue of Birds of Japan" and "Birds of Japan" in the Transactions of the Asiatic Society of Japan, respectively for 1879 and 1882 and "Water Birds of Japan" in the Proceedings of the U. S. National Museum for 1886 were striking.

The records of his travels were also written in scientific way to serve as a kind of guide book of Hokkaido of high quality. We can enumerate as such "A Journey in Yezo" in the Journal of the Royal Geographical Society for 1872, "A Journey in North-east Japan" in the Transactions of the Asiatic Society of Japan for 1874, "Distances on Travelled Routes in Yezo" in the Japan Gazette for 1882 and "Japan in Yezo" a series of papers descriptive of journeys undertaken in Hokkaido at intervals between 1862 and 1882, published in the same journal in 1883. The most valuable and interesting paper was read by him in 1883 before the Asiatic Society under the heading "Zoological Indications of Ancient Connection of the Japan Islands with the Continent". The latter pointed out the fact that the dividing line between the Manchurian and Siberian subregions of the Palaearctic region with regard to zoogeography, is formed by the Tsugaru Strait which separates Hokkaido from the main island of Japan. In recognition of this important discovery the line has been termed BLAKISTON's line (first by Dr. J. MILNE, a seismologist).

The extensive collection of birds' skins made by BLAKISTON assisted by Mr. FUKUSHI, an officer of the Kaitakushi, special government commission for Hokkaido development, included those from Hokkaido, the Kurile Islands and also the main island. They were all mounted in good condition. A number of Japanese birds were sent to R. SWINHOE and some of them donated to the U. S. National Museum. At first he intended to contribute all collections which remained in his hand to the British Museum sending them by way of the Indian Sea. Unfortunately the ship was wrecked on the way and the cargo, including his collection, was brought back again to him. Thereupon he thought it better to allow these collections, upon which he had spent so much time and money, to remain safely in Japan as the memory of the sojourn he had so long enjoyed. Near the end of his stay these specimens including 1338 individuals were presented to the Kaitakushi in 1880. The collection was first kept in the small local museum in Hakodate and later some part was removed to the new museum in Sapporo 1881. The specimens in Hakodate were given over to the Hakodate commercial school in 1890 but after the abolition of the

1) Refer to the note of Dr. STEJNEGER in the Auk Vol. IX No. 1 1892 pp. 75-76.

school in 1895 they were divided into three to be given to the Hakodate middle school, the Sapporo middle school and the Sapporo agricultural college. In 1908 they were again all gathered in the college and since then they have been kept in the college museum (now the University Museum).

As an acknowledgment of his gift General KURODA, the chief of the Kaitakushi government, wished to present him a piece of diagonal cloth, a piece of taffeta and a skin of a seaotter of the best quality. However, BLAKISTON refused them very sincerely and wanted instead merely a map of Hokkaido as a souvenir of his life in that part of Japan.

BLAKISTON resigned from his business and left Japan in 1884 for England. In the same year he sailed again for America where he was married in London, Ohio, with Miss. DUN, the sister of Mr. DUN who had been in Japan as an expert of the Kaitakushi around 1877. He was able then to enjoy home life in peace with his wife, a son and a daughter, having withdrawn from the whirling busy world. BLAKISTON died of pneumonia after seven years' of life in America in San Diego, California on October 15, 1891.

Admiring BLAKISTON's personality the people of Hakodate carried out a grand memorial service in 1911, the 20th year after his death.

Here the writer wishes to express his appreciation to Dr. S. HATTA, to the late Mr. T. KONO and to Mr. K. OKADA who helped him freely in gathering the records regarding Captain BLAKISTON's career.

摘 要

北大博物館所蔵ブラキストン氏寄贈鳥類目録及 ブラキストン氏小傳

侯爵 山階芳麿・犬飼哲男・名取武光

ブラキストン氏の寄贈せる鳥類標本 1331 個の目録を作るに當り、同標本にはブ氏自ら記入せる種類名あれども、當時の鳥類研究もその後著しく進歩し種名の變更せるもの多きため、その引用の便を慮りこゝには最近の種名を用ひ當目録の最後に原記入のものを附記せり。

ブ氏の北海道に於ける動靜はその資料乏しく、材料の蒐集に甚だ困難を感じり。従つて報告せし小傳は極めて不十分なるものなり。然しこれを以つてブ氏の生活の一端をも伺ひ得れば筆者も又満足するところなり。

——本報告に當り侯爵山階芳麿氏の援助を得たるは余等の感謝に堪へざるものにして、これあつて初めて本報告を完成し得たり。尙本報告の作製に當り北海道帝國大學名譽教授八田三郎博士北海道史家故河野常吉氏及函館圖書館長岡田健藏氏等に滿腔の謝意を表せんす。

(北大農學部附屬博物館 犬飼、名取)

LIST OF PERIODICALS DONATED TO
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*Annalen des K. K. Naturhistorischen Hofmuseums

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Royal Botanical Society, *Edinburgh*

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[Transact. Sappero Nat. Hist. Soc., Vol. XII, Pt. 4, 1932]

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- *Meddelanden af Societas pro Fauna et Flora Fennica
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- *Bulletin de la Société d'Histoire Naturelle de Colmar

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Extrait des Annales de la Société Entomologique de France

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Deutschen Entomologischen Gesellschaft, E. V., *Berlin*

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昭和六年五月三十日昭和五年度總會ヲ兼ネ例會ヲ開キ例會ニ於テ下記ノ講演アリ。

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一、鼈甲蜂科ノ分布ニ就テ

農學博士 内田登一君

終リテ總會ニ移リ各幹事ノ事務報告ニ次テ役員ノ改選ヲ行ヒ下記ノ諸氏ニ決定セリ。

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昭和六年十一月三十日本會々報第十二卷第一號發行セラル。

昭和七年六月二十七日昭和六年度總會ヲ兼ネ例會ヲ開キ例會ニ於テ下記ノ講演アリ。

一、臺灣ノ旅

農學士 館脇 操君

一、日本産水母類ノ分布ニ就テ

理學博士 内田 享君

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昭和七年十月廿九日例會ヲ開キ下記ノ講演アリ。

一、「ねこあしこんぶ」ト「ねぢれこんぶ」ニ就テ

農學士 永井政次君

一、歐洲視察談

農學博士 松村松年君
理學博士

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本會々員理 博士工藤祐舜君本年一月八日逝去セラル。茲ニ哀悼ノ意ヲ表ス。

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キ ャ ャ ャ ャ	(CAP)	=====
ス モ ー ル キ ャ ャ ャ	(SMALL CAP)	=====
イ タ リ ャ ャ	(Italic)	=====
ヘ ビ ー タ イ プ	(Heavy type)	=====
ヘ ビ ー イ タ リ ャ ャ	(Heavy Italic)	=====
ゲ ス ペ ル ト	(Gesperrrt)	=====

人名はスモールキヤツブ。學名はイタリツク。

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