

CONTRIBUTIONS TO THE NATURAL HISTORY OF THE COMMANDER ISLANDS.

No. 7.—REVISED AND ANNOTATED CATALOGUE OF THE BIRDS INHABITING THE COMMANDER ISLANDS.

By **LEONHARD STEJNEGER.**

(With three plates.)

Considerable material has accumulated since the author published his "Results of Ornithological Explorations in Kamtschatka and the Commander Islands" (U. S. Nat. Mus. Bulletin, No. 29), which has induced him to prepare the present catalogue. Several species new to the fauna have been added, and many doubtful points have been discussed in view of recent accessions to the museum collections. The "conclusions" to be drawn will form another number of these "Contributions."

In regard to the following catalogue it may be remarked that the nomenclature and arrangement is that of my "Results," &c.; the first number preceding the specific name is the running number of the species in this catalogue; the number in parenthesis is the number of the species in the Synopsis of the Birds of Kamtschatka ("Results," pp. 313-331); the figure following the specific name indicates the page on which the species is treated of in detail in the "Results." The designations of colors refer to Ridgway's "Nomenclature of Colors." The measurements are in millimeters.

COLYMBOIDEÆ.

1 (1). *Colymbus holbœllii* (REINH.) 11.

A rare straggler. One specimen obtained on Bering Island November 24, 1882.

2 (2). *Colymbus auritus* LIN. 14.

Rare straggler.

ALCOIDEÆ.

3 (3). *Urinator adamsii* (GRAY) 14.

Winter visitor only; rather rare.

4 (4). *Urinator arcticus* (LIN.) 313.

By Taczanowski and Dybowski given as inhabiting Bering Island (Bull. Soc. Zool. France, 1884, Extr. p. 3). It may occur during the migrations only; in 1883, however, I was told of a "Bolschoj Gagara" breeding at the Ladiginskij Lake, but I did not see it myself, nor did the natives succeed in killing a specimen of what may possibly have been this species.

5 (5). *Urinator lumme* (GUNN.) 15.

Very common resident on Bering Island. Breeds also on Copper Island.

6 *a lomvia arra* (PALL.) 17.

Common summer resident on both islands.

7 (7). *Uria troile californica* (BRYANT) 20.

Sparingly among the foregoing species.

8 (8). *Cepphus columba* (PALL.) 21.

Common summer resident on both islands.

9 (9). *Cepphus carbo* PALL. 21.

Occasional (?) during the spring migration. Two pairs were observed by me on Bering Island April 28, 1883.

10 (12). *Synthliboramphus antiquus* (GM.) 23.

Breeds on both islands, but more numerous on Copper Island. Winters probably on the open sea, not very distant, since a few were observed and one shot at Bering Island in the beginning of January, 1883.

11 (13). *Simorhynchus pygmæus* (GM.) 23.

As the foregoing species. Quite a number were observed and shot at Bering Island in December and January.

12 (14). *Simorhynchus cristatellus* (PALL.) 32.

A regular but not very numerous summer resident of both islands, wintering like the foregoing species.

13 (15). *Simorhynchus pusillus* (PALL.) 35.

I only met with this species on Bering Island in winter. Dybowski's statement of it nesting there is very doubtful. He also asserts that he has collected, or observed, it on Copper Island, but I am unable to either confirm or deny this statement. (Dyb. & Tacz., Bull. Soc. Zool. Fr., 1884, Extr. p. 3.)

14 (16). *Cerorhinca monocerata* (PALL.) 331.

1826.—*Alea monocerata* PALLAS, Zoogr. Ross. As., II, p. 362.—*Ceratorhyncha* CASSIN, Perry's Exped. Jap., II, p. 233 (1857).—SWINH., P. Z. S., 1863, p. 330.—*Id.*, Ibis, 1874, p. 166.—WHITELY, Ibis, 1867, p. 209.—BLAKIST. and PRYER, Ibis, 1878, p. 211.—*Id.*, Tr. As. Soc. Jap., VIII, 1880, p. 180.—*Id.*, *ibid.*, X, 1882, p. 92.—BLAKIST., Amend. List B. Jap., p. 32 (1884).—*Simorhynchus m.*, SCHLEG., Mus. P. B., Urin., p. 26 (1867).—*Cerorhinca m.*, DALL and BANNIST., Tr. Chicag. Acad., I, 1869, p. 309.—TACZAN., J. f. Orn., 1876, p. 203.—*Id.*, Orn. Faun. Vost. Sibir., p. 74 (1877).—*Id.*, Bull. Soc. Zool. France, 1877, p. 52.—*Cerorhinca m.*, STEJNEGER, Res. Orn. Explor. Kamtsch., pp. 314, 331 (1885).

1827.—*Phaleris cerorhynca* BONAP., Zool. Journ., III, 1827 (p. 53).

1828.—*Cerorhinca occidentalis* BONAP., Ann. Lyc. N. Y., IV, 1828 (p. 423).

1829.—*Chimerina cornuta* ESCHSCHOLTZ, Zool. Atlas, III (p. 2, pl. 12).—DYBOWSKI, Sitzb. Dorpat Naturf. Ges., 1881, p. —.—*Id.*, Orn. Centralbl., 1882, p. 23.

1837.—*Cerorhinca orientalis* BRANDT, Bull. Scientif., II, 1837, p. 348.

1849.—*Alea monoceros* TEMM. & SCHLEG., Faun. Japon. Av. (p. 140).

1853.—*Cerorhinca suckleyi* CASSIN, in Baird's B. N. Am., p. 906.

A year or two before my arrival at Bering Island Mr. N. Grebnitzki obtained two specimens, in the early part of spring, from the outlying islet Arij Kamen. One of these he sent to the museum at Irkutsk, where it afterwards was destroyed by the great fire, while the other was presented to Dr. Dybowski. It is this specimen the latter alludes to when he speaks of having found this species nesting on the Commander Islands, a generalization which does not seem to be warranted by the facts, the more so as the bird is wholly unknown to the natives. It can hardly be regarded as more than an accidental visitor. None were seen or captured during my stay.

Curiously enough Messrs. Taczanowski and Dybowski have dropped the species altogether in their latest list. (*Cf.* Stejneger, Res. Ornith. Expl. Kamtsch., p. 331.)

**15 (17). *Cyclorhynchus psittaculus* (PALL.) 38.**

Common summer resident on both islands. Not observed in winter.

**16 (18). *Lunda cirrhata* PALL. 43.**

Breeds in great quantities on both islands, but particularly numerous on Bering Island. In winter, occasionally after severe gales, a few specimens are found cast up on the beaches.

**17 (19). *Fratercula corniculata* (NAUM.) 59.**

Like the foregoing, but much less numerous.

### LAROIDEÆ.

**18 (20). *Larus glaucescens* (NAUM.) 62.**

A common summer resident on both islands, but particularly numerous on Copper Island. The *L. glaucus* reported by Dybowski and Taczanowski as observed or collected on Bering Island (B. S. Z. F. 1884, Extr. p. 3) may possibly be this species.

**19 (22). *Larus schistisagus* STEJN. 67.**

Only a few flocks observed, and one specimen shot on Bering Island during the latter part of April and the beginning of May. This species does not breed on the islands.

When first describing this species (*Auk*, 1884, p. 231) and preparing the manuscript for my "*Orn. Expl. Kamtsch.*" (pp. 67-73), I had specimens only of *Larus marinus*, *argentatus*, *cachinnans*, and *orientalis* for comparison. The National Museum, since then, has received from Mr. Howard Saunders three good specimens of *Larus affinis* REINH., a material sufficiently ample to prove beyond dispute that *L. schistisagus* and *L. affinis* are entirely different.

The fact that we have now four adult specimens, and one nearly so, of *L. schistisagus*, all agreeing as to the essential characters, at once disposes of the doubt expressed by Mr. Seeborn that it may be "an accidental variety" of *L. affinis* (*Br. B. Eggs*, III, p. 324).

In regard to size, the specimens at hand would indicate that *L. schistisagus* is considerably larger than *L. affinis*. It should be remarked, however, that the only *L. schistisagus*, which is sexed, is a male, while two *L.*

*affinis* are marked as females; it may be, therefore, that all the specimens of the former are males, and the latter all females. A glance at Dr. Finsch's table of measurements (Verh. Zool.-Bot. Ges. Wien, 1879, p. 268) shows that there is not so very great difference between the sexes, although the average of his five males is larger than that of my three specimens. While it thus remains to be seen whether *L. schistisagus* really is larger than *L. affinis* there is one character to be derived from the measurement which at once separates the two, viz, the shortness of the middle toe of the latter as compared with the tarsus. In *L. schistisagus* tarsus and middle toe, with claw, are practically of equal length (average difference, 1.5<sup>mm</sup>; maximum, 3<sup>mm</sup>), while in *L. affinis* the former is much longer than the latter (average, 12<sup>mm</sup> =  $\frac{1}{2}$  inch; maximum, 14<sup>mm</sup>; minimum, 9<sup>mm</sup>). That this difference is not accidental and due to the scantiness of the material is clear from the fact that we find the same proportion in the seven specimens measured by Finsch, and in a specimen measured by Meves.\* In the five males as given by Finsch the average difference is 14<sup>mm</sup>; maximum, 17<sup>mm</sup>; minimum, 12<sup>mm</sup>. It is possible that Finsch's measurements do not include the claw; but, on the other hand, I am not certain whether he measures the tarsus in front or from the side, and in the latter case his measurements would agree very nearly with mine. Even granting that the length of the tarsus as given by him is that of its greatest dimension, and adding the length by which the claw extends beyond the toe, the average difference between toe with claw and tarsus would not fall much short of 10<sup>mm</sup>, while *L. schistisagus*, in having the tarsus and middle toe of equal length, agrees with *L. argentatus* and *L. cachinnans*.

There is a decided difference in the color of the soft parts of the two species. As will be seen from my notes (Oru. Expl. Kamtsch, pp. 68, 69) in *L. schistisagus* the eyelids are "reddish violet gray," the angle of mouth pale yellow, and the feet flesh color of a rather deep reddish hue. All observers of *L. affinis* agree that its eyelids are orange-red and the feet yellow. Mr. Seebohm (Ibis, 1876, p. 452) says: "Like both these species [*L. cachinnans* and *L. fuscus*] it has yellow legs, and the circle round the eye is brilliant vermilion, or the color of a Seville orange. \* \* \* In winter, no doubt, the legs lose their yellow color and become grayish white, but the orange-red eyelid is retained." In the Ibis for 1879, p. 162, the same author speaks of it as "this yellow-legged Herring-gull." Meves (Oefv. Sv. Vet. Akad. Handl., 1871, p. 786) describes the bird shot by him as having "the feet of a beautiful lemon-yellow color, as in *Larus fuscus*," and "the angle of mouth and eyelids orange-red." Dr. Finsch (*op. cit.*, p. 269) states that his No. 513 had the "eyelids vermilion, legs dirty ocher-yellow;" in No. 510 the eyelids were minium red, and the legs orange ocher-yellow. The colors of the soft parts, consequently, differ in the two species even more than those of *L. argentatus*

\* Cf. also Saunders's remark, P. Z. S., 1878, p. 172, to the effect that the foot of *L. affinis* as compared with the tarsus is smaller than that of either *L. argentatus*, *L. cachinnans*, or *L. occidentalis*.



proper, and the Mediterranean Herring-gull, *L. cachinnans*, or whatever its proper name may be.\* That the flesh-color of the legs in the bird collected by me was not an individual variation is evident from the fact that I shot and examined two additional specimens in which the color was the same, and through my binocle I was able to make out that the feet of the birds I only saw were similarly colored. The skins which I afterwards received from Petropaulski were quite fresh, and the color of the legs was a dark reddish violet-gray, a color they would never have assumed had they ever been yellow. Von Schrenck obtained old males, undoubtedly belonging to this species, at the Lower Amur in the latter part of May, and he also describes the legs as flesh-colored (Reis. Amurl., I, p. 505). The remarks by Mr. Howard Saunders (P. Z. S. 1878, pp. 170 and 172) in regard to the intensity of the colors of the soft parts are hardly applicable to the present case, for while *L. argentatus*, with flesh-colored feet, is northern and *L. cachinnans*, with yellow legs, southern, † *L. affinis* breeds north of the Polar Circle, while *L. schistisagus* breeds as far south as 52° north latitude.

My specimens of *L. schistisagus* have the mantle just a shade darker than any of the three *L. affinis*.

The wing pattern of the two species is at least as different as that of any two species of the group to which they belong, although nearly agreeing in regard to the absence of a gray wedge on the outer web of the first three primaries. On the fourth primary my specimens of *L. affinis* have a very abruptly-defined wedge in the outer web, while in the type specimen of *L. schistisagus* the whole web is black; but as No. 106625 in this respect resembles *L. affinis*, this difference in the pattern of the fourth primary (shown in our figures, pl. viii) is of no account.

In the first primary the size of the inner gray wedge is much greater in *L. schistisagus* than in *L. affinis*, and the white at the tip appears to be, on the whole, more extended.

In the second primary the gray wedge in *L. schistisagus* goes farther forwards; a large white mirror is found in the black, and the white

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\* Mr. Dresser (B. of Eur., VIII, p. 418) rejects Pallas's name for this bird, and calls it *L. leucophæus*, based upon Bruch's application, in 1853, of the name given by Lichtenstein to specimen in the Berlin Museum. In the Isis for 1832, cols. 1107, 1108, there is a very good description of the bird by Bruch. He considers it a good species, mentioning the dark color of the back, the red eyelids, and the yellow legs as distinguishing it from *L. argentatus*, and proposes to name it after Dr. Michahelles. But he omits to do so. In the 10th volume of Naumann's "Naturgeschichte der Vögel Deutschlands" (1840), p. 332, the description is repeated, and the name *Larus michahellis* formally applied to it. Those rejecting *cachinnans* must adopt *L. michahellis*, for *leucophæus*, although mentioned by Naumann (*l. c.*), is not described.

† In regard to the Kola Peninsula "*Larus argentatus*," however, Mr. Th. Pleske remarks as follows (Säng. Vög. Kola-Halbins., II, 1886, p. 390): "Meiner Ansicht nach gehört die Silbermöwe der lappländischen Halbinsel nicht zu der Hauptform *Larus argentatus*, da sie sich von letzterer durch dunkleren Mantel und gelbe Füße unterscheidet. Ein von mir mitgebrachtes Exemplar eines alten Vogels . . . stimmt mit der Beschreibung von *Larus leucophæus* Licht. überein." It may have been a *L. affinis*, though if he compared it with Dresser's plate (B. Eur., VIII, pl. 602) he could hardly confound them.

tip is rather large. In No. 106625 the white mirror is much larger than in the quill figured, crossing both webs in one wing, and nearly confluent with the gray wedge. Two specimens of *L. affinis* are without a trace of the white mirror, while only the one figured has a small white spot; the absence of a white mirror seems to be the rule in this species, "and only to be found in very old birds (not one of thirteen breeding-birds obtained on the Petchora had it)", according to Saunders (P. Z. S., 1878, p. 172).

In the third and fourth primaries of *L. schistisagus* I find in all specimens a somewhat unique character, inasmuch as the gray wedge on the inner web terminates in a large white mirror, as shown in the figure.\* In *L. affinis* there is, at most, a narrow white line separating the gray from the black. This strongly marked character of *L. schistisagus* is not due to an extremely old age of the specimens here in question, for it is found *even in the young bird*. No. 101666 is still gray on head and belly; the new slate-colored feathers have nearly all appeared on the back, but the wing-coverts are still mostly brownish gray, the tail-feathers are blackish towards the end, white at base, mottled with brownish-gray, and the bill is dusky, becoming lighter on the basal half of the tomia. The primaries (the first two not yet fully out) are pale brownish-gray, the outer webs and tips much darker dusky; in the first one there is a large white mirror on the inner web about 20<sup>mm</sup> from the tip; the second one is without any definite pattern, but the third has a gray wedge terminated with white, as in the old bird, but more restricted, while on the fourth primary the pattern is stronger defined and the extent *nearly exactly as in the third primary of the adult birds*.

The above comparison should be sufficient to remove all doubts as to the specific validity of *Larus schistisagus*, and will, in connection with what is said in "Orn. Expl. Kamtsch." under this species, enable the student of Eastern Asiatic birds to distinguish the different species of the very difficult group of Herring-gulls.

## I.—LARUS SCHISTISAGUS:

U. S. Nat. Mus. No.	Collector and No.	Sex and age.	Locality.	Date.	Wing.	Tail-feathers.	Exp. culmen.	Bill along gape.	Bill from fore border of nostrils.	Bill, height at fore border of nostrils.	Tarsus.	Middle toe with claw.
92885	Stejn., 2007	♂ ad.	Bering Island.....	May 5, 1883	467	191	57	81	26	22	71	71
101665	.....	ad.	Petropaulski .....	.....	(†)	163	58	79	28	20	69	66
106625	.....	ad.	.....do .....	.....	440	177	54	80	26	20	73	70
106624	.....	ad.	.....do .....	.....	(†)	.....	55	76	26	19	72	71
			Average measurements of 4 adults.				56	79	26.5	20	71	69.5
101666	.....	jun.	Petropaulski .....	.....	(†)	180	56	83	27	22	76	74

\*This feature is not well represented in the previous figure (Orn. Expl. Kamtsch., p. 70, fig. 4, cf. footnote, p. 362), and a new one is therefore given here (pl. viii).

†Wing molting.

## II.—LARUS AFFINIS.

U. S. Nat. Mus. No.	Collector and No.	Sex and age.	Locality.	Date.	Wing.		Tail-feathers.	Exp. culmen.	Bill along gape.	Bill from nostrils.	Bill, height at fore border of nostrils.	Tarsus.	Middle toe.
103393	Seeb., 681.	♀ ad.	Yushina, Northeast Russia.	June 25, 1875	425	160	49	68	22	16	68	59	
103391	Seeb., 930.	♀ ad.	Yenisej, Siberia . . . .	July 26, 1877	440	163	51	70	21	16	71	60	
103390	Blant., . . .	ad.	Sind, India. . . . .	Jan. 9, 1875	420	159	49	71	25	16	67	53	
			Average measurements of 3 adults.	.....	.....	.....	50	70	22.7	16	68.7	57	

**20 (24). *Larus kamtschatchensis* (BP.) 73.**

A young bird of this species was shot on Bering Island on May 29, 1883, when I was absent in Petropaulski. It was not observed about the islands by me, and does not breed there.

**21 (25). *Larus canus* LINN. 76.**

Apparently only an occasional visitor, like the foregoing. I shot an adult female on Bering Island November 26, 1882.

**22 (26). *Larus ridibundus* LINN. 76.**

Not seen by me, but recorded as occasionally occurring on Bering Island and on trustworthy testimony.

When writing the part of my "Orn. Explor. Kamtsch.," I stated that I had been unable to compare the eastern bird with specimens from Europe. The National Museum has, since then, received a number of European birds, and from Capt. Hunter, in Petropaulski, three more Kamtschatkan specimens. I have carefully measured the whole series, including six specimens from Japan and one from India, and can find no difference in the dimensions of eastern and western birds. The alleged larger size of the eastern birds does not exist, nor can I discover any difference in regard to coloration or wing-pattern.

**23 (27). *Rissa tridactyla pollicaris* STEJN. 78.**

Breeds in immense flocks on both islands. On Bering Island it is mostly confined to the southern portion.

**24 (28). *Rissa brevirostris* (BRUCH). 82.**

Large colonies on both islands, but on Bering Island only on the southeastern coast between Cape Manatee and Peregrobnij Mys.

**(30) 25. *Sterna camtschatica* PALL. 83.**

As already remarked in "Orn. Expl. Kamtsch.," I was wrong in originally asserting that this species breeds on Bering Island, the bird breeding there being the common Arctic Tern. The Kamtschatkan Tern is only an occasional visitor to the islands; two specimens were obtained by me in the early summer of 1883.

26 (31). *Sterna paradisæa* BRÜNN. 85.

A few pairs breed regularly in the northern part of Bering Island.

27 (32). *Stercorarius parasiticus* (LINN.) 86.

Rather common in summer, breeding on the tundra. The light phase is comparatively rare.

In 1884 I received from Capt. E. I. Hunter, in Petropaulski, a specimen of the light phase (Nat. Mus., No. 101672), the bill of which is in a condition that makes it highly probable that the basal covering, often called the "nasal shield" or "cere," is shed periodically in the same manner as in the Puffins (*Fratercula* and *Lunda*), (*cf.* Stand. Nat. Hist., IV, Birds, 1885, p. 75). Unfortunately no date is given, but judging from the condition of the plumage the bird seems to be in autumnal dress. In birds which have the "cere" or "nasal cuirass" in perfect condition it covers the entire basal portion of the bill above the nostrils and behind the "nail." Comparing the bill of a *Stercorarius* with that of the Tufted Puffin (*Lunda cirrhata*), (*Orn. Expl. Kamtsch.*, pl. i and ii), it will be seen that the "nail" of the former corresponds exactly with the red portion of the Puffin's bill, and the "cere" to the deciduous green portion of the latter, only that in the Jæger the basal part of the bill is proportionally more elongated than in the Puffin. On both sides of the broad and somewhat flattened culmen the "cere" is marked with a well-defined groove, which runs from the frontal feathering to the "nail" parallel with the culmen, dividing the "cere" into three longitudinal pieces, two lateral ones and one median. The lower edge of the cere partly overhangs the nostrils, as will be observed if one looks through the nostrils towards the light. This normal condition is represented in our figure, pl. vii, fig. 1, U. S. Nat. Mus., No. 75206.

The other figure, pl. vii, fig. 2, U. S. Nat. Mus. No. 101672, represents the specimen which is thought to be shedding the "nasal cuirass." (*cf.* Stejneger, *Orn. Expl. Kamtsch.*, p. 49, footnote.) Comparing it with the normal bill it will be seen that the median piece, corresponding to the "horny casque" of the Tufted Puffin, is raised somewhat from the "matrix;" the lateral piece has separated entirely from the "subnasal" portion, and on the side not shown in the figure the groove separating the lateral and the median piece has also burst open for almost its whole length; the basal part behind the dotted line, in the figure, is dark, adhering to the underlying part of the bill, while the anterior part has a dull, yellowish, dead color, showing that it has loosened from the layer underneath; the front border of the "cuirass" has broken off irregularly; the covering of the lower mandible is also in the progress of scaling off irregularly. In short, the bill presents exactly the same aspect as that of numerous specimens of *Lunda* in the act of shedding the green-colored parts, and I entertain no doubt that the process of shedding is as regular in the *Stercorarii* as in the Puffins. If that be the case, the "nasal cuirass" would probably be soft and membranous in winter, become hardened toward the breeding season, remaining thus until the



shedding in late autumn. There is to my knowledge no direct indication in the literature that anybody before has observed such a process, but the various ways in which the authors describe the basal parts point toward the probability that the condition of these is not the same at all seasons, for we find them described by some as a soft membrane, by others as a somewhat hard cere, by others again as a "horny shield." In looking over the material at hand I find other specimens apparently in the first stage of shedding, notably one from Godhavn, Greenland, collected by Governor Fencker, August 15, 1879 (U. S. Nat. Mus. No. 79054).

28 (33). *Stercorarius longicaudus* VIEILL. 87.

An occasional, though by no means uncommon, visitor to the islands during the migrations.

29 (33.1). *Stercorarius pomarinus* (TEMM.) 331.

By Dybowski given as occurring in Bering Island. Probably only an occasional straggler.

### PROCELLAROIDEÆ.

30 (34). *Diomedea albatrus* PALL. 89.

Quite a number of adult and young Albatrosses visit the sea surrounding the islands during the summer months, the black young ones being in the majority, however, the old ones making their appearance as early as the middle of March. *D. nigripes* AUD., does not occur, and those reported from the islands and Kamtschatka are only the young ones of the present species.

31 (36). *Fulmarus glacialis glupischa* STEJN. 91.

Both the dark and the light phase occur on the islands, the former breeding in enormous number on both islands, the latter only in small colonies on Copper Island.

32 (37). *Puffinus tenuirostris* TEMM. 96.

Not common, but probably breeding.\*

33 (38). *Oceanodroma leucorhoa* (VIEILL.) 97.

Breeds at Tschornij Mys, Copper Island.

34 (39). *Oceanodroma furcata* (GM.) 98.

Breeds at the same place as the foregoing; also in different other localities in the same island, and doubtless also in Bering Island. A male, shot on Bering Island, October 25, 1884, has been received from Mr. Grebnitzki (U. S. Nat. Mus. No. 106610; Grebnitzki, No. 200).

### SCOLOPACOIDEÆ.

35 (40). *Haematopus osculans* SWINH. 100.

Only occasionally during the migrations.

\* The *Æstrolata desolata* mentioned in my List of the Birds of Kamtschatka (Orn. Expl. Kamtsch., p. 316) should probably stand as *Æ. leucoptera* GOULD, being the *Procellaria desolata* of Kuhl (Beitr., p. 143) and Schlegel, but not of Gmelin.

36 (41). *Arenaria interpres* (LIN.) 102.

Very numerous in spring and autumn, only a few remaining over summer on Bering Island, where they possibly breed.

37 (42). *Charadrius squatarola* (LIN.) 103.

Visits the islands on the fall migration. Mr. Grebnitzki has kindly forwarded a specimen (♂) from Bering Island collected October 8, 1884 (U. S. Nat. Mus., No. 106613). This species was not obtained by Dr. Dybowski's collectors.

38 (43). *Charadrius dominicus fulvus* (GM.) 104.

Regular, though not very numerous on the migrations, spring and fall. Not known to breed on the islands.

39 (44). *Ægialitis mongola* (PALL.) 105.

A common breeding bird on both islands, appearing during the first half of May and returning south about the end of September.

Dr. Wilh. Blasius has recently (*Zeitschr. Ges. Ornith.*, III, 1886, pp. 148-152) discussed the status of the present species with regard to the alleged *Æ. pyrrhothorax*, and on the strength of six *unsexed* specimens he thinks it probable that the latter forms at least a "constant variety." The chief characters by which the two forms are said to be distinguished consist in difference in the facial markings, the color of the crown and hind neck, and the length of wing and of tarsus.

In addition to the twelve specimens which I collected in the Commander Islands, I have before me two specimens from Middle Japan and one from the Kurile Islands. Nearly all the specimens are carefully sexed and full data given. An inspection of this material may throw some light on the question.

In the first place it may be necessary to determine whether our birds really are Pallas's *Charadrius mongolus*. In his *Zoographia*, II, page 137, he describes the head markings as follows: "Frons nigra, ad rostrum alba, nigraque linea divisa. Vertex cinereus. Fascia nigra a rostro sub oculis continua, areu intēgro cingit gulam albam." This description suits the male specimen from Bering Island, which we have figured (pl. vii, U. S. Nat. Mus. No. 89051). It still better fits No. 92778, ♂, also from Bering Island, and No. 95940, from the Kuriles, for in both there is the black line dividing the white of the forehead (frons)\* complete above. He further says: "Cervix exsolete ferruginea, intense, et cum fulvedine, collum jugulumque," a feature which we find in all the male birds before us, including the three just mentioned, though of varying extent and intensity.

Inasmuch as a totally or almost totally black forehead is said to be a

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\*Dr. Blasius (*op. cit.*, p. 151) evidently misunderstands the English word "forehead." He says: "Schrenck soll ferner nach Harting ein Exemplar mit schwarzem Vorderkopf vom Amur beschreiben, was in diesem Zusammenhange offenbar 'schwarze Stirn' und Hinneigung zur Färbung von *pyrrhothorax* bedeuten soll." "Forehead," however, is equivalent to "Stirn" (*frons*), but not at all to the German "Vorderkopf."

characteristic feature of *A. pyrrhothorax*, we feel safe in asserting that we have not misidentified our specimens so far.

But it should at once be stated, that in regard to the facial or frontal marks not two of the specimens at hand are exactly alike, and to illustrate these enormous variations some of the extremes and intermediate forms are figured on the accompanying plate. It ranges from an almost black forehead (Stirn) to an almost white one, and all of these specimens are killed between March and May. No. 85779, a male from Yokohama, is a typical *pyrrhothorax* so far as the forehead is concerned, for it seems that not even the most extreme specimens are quite without a trace of white; at least, those of Dr. Blasius are not, but through No. 92778, which has a little more white, and No. 95940, in which the white spots are still somewhat larger, it grades insensibly into the other extreme, a female from Bering Island (No. 89052, May 11), with but a few dusky spots at the border of the white (pl. vii, figs. 3-6).

Dr. Blasius asserts that in *pyrrhothorax* he has found "some white, or at least hoary (greise), feathers behind the dark, nearly blackish brown, forehead forming a light transverse line fading gradually backwards over the crown, which is tinged with hoary." Now, in the Yokohama male, the black extreme, this post frontal light line is appreciable, but it is not hoary; on the contrary it is strongly tinged with rusty and so is the whole fore-part of the crown and the light line bordering the orbits above and behind. The Japanese female, however, No. 91584, has these parts mixed hoary and pale rusty, while in No. 92779 they are entirely hoary and more or less so in several other specimens. Dr. Blasius quotes his father's diagnosis of the true *mongola*, in which the latter speaks of the white of the forehead being continuous with the "white stripe over the eyes," asserting that in his specimens he found the distinguishing features quoted "sharply pronounced." In nearly all my specimens the light stripe over the eyes is strongly tinged with ferruginous, and the only specimen having the posterior half of it distinctly white is the female from Japan, but even in this the portion along the crown and occiput is rusty. Dr. Blasius also lays considerable stress on the fact that in the three specimens, by him held to be *pyrrhothorax* the grayish brown of the occiput is sharply separated from that of the back by a "light rusty cervical band about 1<sup>cm</sup> wide." So it is in our Yokohama male (mounted); in the Kurile specimen (a skin with the neck very much stretched) it is nearly 15<sup>mm</sup> wide, but of a lighter shade; in the other males it is also present, though somewhat narrower, *but this circumstance is simply due to the fact that in making the skin the neck has been drawn in*; in most of the females this cervical band is only faintly indicated, or entirely absent as in the one from Japan.

The above analysis proves conclusively that the frontal and cervical marks are subject to an almost indefinite variation, and I have no hesitation in saying that no distinction of the two alleged species can be based upon the color marks of the head.

Now in regard to the size. From the measurements of the Commander Islands birds given in my "Orn. Expl. Kamtsch.," page 107, and those of the three Japanese specimens below, it will be seen that the difference between the sexes is very small, in fact smaller than the individual variation, the females being, on the average, a trifle larger than the males. In addition to the measurements given I may state that the length of the tarsus in the Commander Islands birds varies between 30 and 32<sup>mm</sup>.

A direct comparison of the dimensions as measured by me and those recorded by Dr. Blasius is hardly justifiable, for our methods of measuring may be entirely different. They should, therefore, be considered separately. It is then evident that in my series the bird which according to its coloration should be a *pyrrhothorax* does not differ as to size from those which are typical *mongola*. In the list of dimensions given by Dr. Blasius we are at once struck by the fact that the individual variation of the wing of *mongola* is 7<sup>mm</sup>, and that of *pyrrhothorax* is 1<sup>mm</sup>, while the difference between the alleged species is only 3<sup>mm</sup>. Furthermore, in the former the variation of the tarsus is only  $\frac{1}{2}$ <sup>mm</sup>; in the latter it is 3<sup>mm</sup>, while the difference between both amounts to no more than  $\frac{1}{2}$ <sup>mm</sup>. In other words, the individual variation is considerably, in fact many times, greater than the diagnostic difference.

For the present, therefore, I see no reason for changing the verdict of Harting (Ibis, 1870, p. 384 *sequ.*) that *pyrrhothorax* is a synonym of *mongola*.

*Measurements.*

U. S. Nat. Mus. No.	Collector and No.	Sex and age.	Locality.	Date.	Wing.	Tail-feathers.	Exp. culmen.	Tarsus.	Middle toe with claw.
85779	Jouy .....	♂ ad.	Yokohama .....	Apr. 28, —	130	51	15	30	23
91584	Jouy, 1037..	♀ ad.	Kanagawa .....	Mar. 29, 1883	137	55	16	31	22
95940	Snow, Bl., 2757.	♂ ad.	Kuriles .....	"May-July, 1881."	128	51	16	31	.....

**40 (45). Gallinago gallinago (LIN.) 110.**

A regular summer visitor; tolerably common in Bering Island.\*

\* In my Synopsis of the Birds of Kamtschatka I enumerated the second species of snipe as *Gallinago hyemalis* (Eversm.) with a query. It now appears that I was correct in questioning the specific appellation, since Mr. Seebohm (Ibis, 1886, p. 129) asserts that "*Scolopax hyemalis* of Eversmann (Bull. Soc. Mosc. 1845, p. 257, pl. vi), from the Altai Mountains, is unquestionably the Himalayan bird," or the true *G. solitaria* of Hodgson. The correct name of the Eastern or Japanese Solitary Snipe seems to be *Gallinago solitaria japonica*, as originally proposed by Bonaparte. Mr. Seebohm (*l. c.*) denies the right of Bonaparte to be quoted in the present connection, and would substitute Swinhoe as the authority for the name, but it seems as if he labors under a mistake. He says, "The *Gallinago japonica* of Bonaparte (Compt. Rend., 1856, p. 715) is apparently a *nomen nudum* without description of any kind, and may belong to any of the half-dozen snipes of Japan." Now, in the first place, no such a name is found on page 715 of any of the two volumes of the "Comptes Rendus" published in 1856. In



41 (47). *Arquatella couesi* RIDGW. 112.

A common resident. It breeds in great numbers, most of them leaving in autumn, but a great many remain all winter.

Usually this species is confounded with *A. maritima*, of which it is the Pacific representative. It seems, however, as if Professor Bogdanow, on the other hand, has confounded it with the Japanese *Tringa crassirostris* TEMM. & SCHLEG., for he does not mention *A. maritima*, or any representative of it, from the Pacific possessions of Russia, while he attributes *T. crassirostris* to Kamtschatka and Bering Island, where it was found neither by Dybowski nor by myself (*cf.* Bogdanow, *Consp. Av. Imp. Ross.*, I, pp. 88-90).

Apart from the difference in coloration and the discrepancy in size, which is very great, *T. crassirostris* being more than one-third larger than *A. couesi*, as will be seen from the subjoined table, they are very easily distinguished by the quite differently proportioned feet, the former having the tarsus *much* longer than the middle toe with claw, while in *A. couesi* this toe with claw is longer than the tarsus. In fact, the two species belong to different genera, and should always be distinguished by their structural differences:

## Comparative measurements.

## a. TRINGA CRASSIROSTRIS.

U. S. Nat. Mus. No.	Collector.	Sex and age.	Locality.	Date.	Wing.	Tail-feathers.	Exp. culmen.	Tarsus.	Middle toe with claw.
96424	Swinh. ?	♀ ad.	Shanghai, China . . .	Apr. —, 1873	185	72	41	35	27
97975	.....	jun.	Yokohama, Japan . . .	.....	177	65	40	37	29
102143	.....	jun.	"Japan" .....	.....	176	63	42	37	28

vol. xliii, however, on page 579, Bonaparte under *Gallinago scolopacina* mentions a subspecies "*a. japonica*." This is a *nomen nudum* without dispute, though evidently referable to Japanese specimens of the common snipe. But on the same page he names another bird *Spilura solitaria a. japonica* (N. B., not *Gallinago japonica*)! And this name is not a *nomen nudum*, for in separating it from "*S. solitaria* Hodgson," he expressly refers it to "*Sc. solitaria*, Schleg.," which is just the bird Mr. Seebohm proposes to call "*japonica* SWINHOE." Bonaparte's name *Spilura solitaria japonica* cannot "belong to any of the half-dozen snipes of Japan," but only to the one which Schlegel had called *Scolopax solitaria*!

The synonymy of the present form should therefore stand as follows:

(46). *Gallinago solitaria japonica* (Bp.).

1849.—*Scolopax (Gallinago) solitaria* TEMM & SCHLEG., Fauna Jap. Aves (p. 112, pl. lxxviii) (*nec* HODGSON).

1856.—*Spilura solitaria a. japonica* BONAP., Compt. Rend., XLIII, p. 579.

1873.—*Gallinago japonica* SWINHOE, Ibis, 1873, p. 364.

1876.—*Gallinago hyemalis* TACZANOWSKI, Bull. Soc. Zool. France, 1876, p. 236 (*nec* EVERS.M.).—*Id.*, *ibid.*, 1883, p. 349.

I have received from Selliter a skin of this form, which is said to have been collected in Kamtschatka May 11, 1884 (U. S. Nat. Mus. No. 108954), but this is apparently a mistake, as it most probably came from Ussuri. It differs in no way from Japanese and Chinese specimens with which I have compared it.

## Comparative measurements—Continued.

## b. ARQUATELLA COUESI.

	Wing.	Tail-feathers.	Exp. culmen.	Tar-sus.	Middle toe with claw.
Average measurements of 7 adult ♂♂ .....	119	57	26	24	27
Average measurements of 6 adult ♀♀ .....	121	58	29	24	28

**42 (48). *Actodromas acuminatus* (HORSF.) 115.**

Visits the islands on the fall migration (only?).

**43 (49). *Actodromas damacensis* (HORSF.) 116.**

Most of the Long-toed Stints visiting the islands only pass through during the migration, but a few stay over the summer in Bering Island, probably breeding.

**44 (50). *Actodromas ruficollis* (PALL.) 118.**

Visits the islands during the migrations only.

**45 (51). *Actodromas temminckii* (LEISL.) 119.**

As the foregoing species.

My conjecture (Orn. Expl. Kamtsch., p. 119 and p. 117) that Taczanowski's *damacensis* is referable to the present species, which at the time was given out with considerable doubt, has received confirmation by the fact that in their "Liste des Oiseaux du Kamtschatka" (Bull. Soc. Zool. France, 1884) p. 2, Messrs. Dybowski and Taczanowski enumerate, as occurring in Kamtschatka, Bering Island, and Copper Island, "*damacensis* Horst.," "*salina* Pall." (= *ruficollis*), and "*subminuta* Midd." (*damacensis* vera), without mentioning *A. temminckii*, which it is quite improbable that Dr. Dybowski's collectors should have missed altogether, while it is still more improbable that they should have got the true *A. minuta*.

**46 (52). *Pelidna alpina pacifica* (COUES) 120.**

An additional specimen of this species, which only visits the islands during the migrations, has been received from Mr. Grebnitzki (U. S. Nat. Mus. No. 106614, Grebnitzki No. 201, ♂, Bering Island, October 25, 1884).

**47 (53). *Calidris arenaria* (LIN.) 122.**

Only during migration, and apparently very rare. Not obtained by Dr. Dybowski's collectors neither on the islands nor in Kamtschatka.

**48 (54). *Limosa lapponica baueri* (NAUM.) 122.**

A regular visitor during the migratory seasons, a few individuals staying over summer.

49 (55). *Limosa limosa melanuroides* (GOULD) 316.

- 1835.—*Limosa melanura* TEMM., Man. d'Orn., 2 ed., III, p. lii.—TEMM. & SCHLEG., Fauna Japon. Aves (p. —) (1849).—KITTL., Denkw., II, pp. 294, 314 (1858).—SWINHOE, Ibis, 1868, p. 58.
- 1846.—*Limosa melanuroides* GOULD, P. Z. S., 1846, p. 84.—PRZEWALSKI, Put. Ussuri (p. 54) (1870).—*Id.*, Mongol., II (p. 142), (1876).—TACZANOWSKI, Journ. f. Orn., 1873, p. 104.—*Id.*, *ibid.*, 1874, p. 336.—*Id.*, Bull. Soc. Zool. France, 1876, p. 255.—*Id.*, *ibid.*, 1883, p. 340.—*Id.*, Orn. Faun. Vost. Sibir., p. 58, (1877).—BOGDAN., Consp. Av. Imp. Ross., I, p. 85 (1884.)
- 1853.—*Limosa agocephala* MIDDENDORFF, Sibir. Reise, II, ii (p. 218) (*nec* LIN.).—SWINHOE, P. Z. S., 1863, p. 313.—RADDE, Reisen Süd. Ost-Sibir., II (p. 331) (1863).
- 1864.—*Limosa brevipes* SCHLEGEL, Mus. P. B. Scolopac., p. 21 (*nec* GRAY, 1844, quæ *L. baueri*).—SWINHOE, P. Z. S., 1871, p. 406.—*Id.*, Ibis, 1875, p. 453.—DAVID & OUSTALET, Ois. Chine (p. 460) (1877).—BLAKIST. and PRYER, Ibis, 1878, p. 220.—*Id.*, Tr. As. Soc. Jap., VIII, 1880, p. 194.—*Id.*, *ibid.*, X, 1882, p. 111.—BLAKIST., Amend. List. B. Jap., p. 11 (1884).
- 1884.—*Limosa agocephala melanuroides* DYBOW. & TACZAN., Bull. Soc. Zool. France, 1884, Extr., p. 2.—STEJNEGER, Orn. Expl. Kamtsch., p. 316 (1885).
- 1885.—*Totanus melanurus melanuroides* SEEBOHM, Brit. B. Eggs, III, p. 163.

A good specimen of the Eastern Black-tailed Godwit was collected at Bering Island, June 9, 1884, by Mr. Grebnitzki, and kindly forwarded to the National Museum (Grebn. No. 134, U. S. Nat. Mus. No. 106615). It is a rare visitor to the islands, and possibly only an occasional straggler.

From the typical western *Limosa limosa* (LIN.) the present form only differs in its proportionately shorter tarsi, as will be seen from the subjoined table of measurements, though one of the birds from Japan agrees very well with the European specimens. It may also be that the western bird averages slightly larger. As to coloration I can detect no constant difference, though it may be that *melanuroides* in full summer plumage has the under tail-coverts more heavily marked with dusky. My material, however, is too scanty to decide upon this point.

The four species of *Limosa* are very easily distinguished by the coloration of their axillaries, with which the greater part of the under wing-coverts agree. They may be identified in all plumages as follows:

1. *Limosa limosa*.\*  
    *a. Limosa limosa melanuroides*. } Axillaries pure white.
2. *Limosa lapponica*.  
    *a. Limosa lapponica baueri*. } Axillaries white with dusky marks.
3. *Limosa hamastica*. Axillaries uniform dusky.
4. *Limosa fedoa*. Axillaries cinnamon-ocher.

\* By authors who do not adopt the rule of retaining the original specific name when used for the genus, this species is usually called *Limosa melanura* LEISLER, 1811. The oldest name undoubtedly belonging to this species, after Linnæi *Scolopax limosa*, is *Limosa totanus* SCHÄFFER, Mus. Orn., p. 52, pl. xxv (1789), as both his description and figure testify. Gmelin's *Scolopax belgica* (1788), "dorso, alis, cauda pedibusque nigris," cannot be identified from the diagnosis.

## Comparative measurements.

## a. LIMOSA LIMOSA.

U. S. Nat. Mus. No.	Collector and No.	Sex and age.	Locality.	Date.	Wing.	Tail-feathers.	Exp. culmen.	Tarsus.	Middle toe with claw.
9400	.....	ad.	"Europe" .....	"Summer" ..	268	81	95	73	46
56974	Schlüt., 946	♂ ad.	.....do .....	.....	206	83	95	74	44

## b. LIMOSA MELANUROIDES.

97074	.....	ad.	Yokohama, Japan .....	.....	185	65	75	62	41
109436	Namiye...	♂ ad.	Shimosa, Japan ...	Mar. 18, 1883	186	66	73	62	41
106615	Grebn., 134	♂ ad.	Bering Island .....	June 9, 1884	184	64	74	63	44
109435	Namiye...	♀ ad.	Shimosa, Japan ...	Mar. 18, 1883	198	72	88	72	43
85743	Ferguson .	♀ ad.	Shanghai, China ..	Mar. 18, 1881	200	80	106	67	43

50 (56). *Pseudototanus guttifer* (NORDM.) 124.

One specimen shot on Bering Island during the spring migration.

It is curious that this bird has not been found anywhere except at Okhotsk and in Kamtschatka in summer, and in India in winter. It is one of the rarest waders in collections, and the type specimen in the Berlin Museum and the one in the U. S. National Museum seems to be the only summer specimens preserved.

Since writing the account of this species (*Zeitsch. Ges. Ornith.*, I, 1884, p. 223, pl. x; *Orn. Expl. Kamtsch.*, pp. 123, *seq.*) I have had the opportunity to verify the quotations from "Stray Feathers," thanks to the generosity of Mr. W. E. Brooks, who presented a full set of this magazine to the library of the National Museum. Thus the first quotation of the synonymy of the genus should be corrected to

1879.—*Pseudototanus* HUME, *Stray Feath.*, VII, p. 488.

A corresponding correction should be made in the quotation of the fifth specific synonym, and under the fourth synonym should be added the following quotations, to be inserted before "Harting":

HUME, *Stray Feath.*, IV, 1876, p. 346.—*Id.*, *ibid.*, VI, 1878, p. 463.

51 (57). *Totanus nebularius* (GUNN.) 128.

Common during the spring migration.

Owing to the lack of a sufficient series I have, in my *Orn. Expl. Kamtsch.*, p. 128, expressed some doubts whether the Greenshank from Eastern Asia ought not to stand as *Totanus nebularius glottoides*. The accumulation since then of a series of twenty-six specimens from all parts of the range of the present species has convinced me that the latter name has not the slightest foundation in facts. I have before me specimens from Bering Island, Japan, China, Siam, various parts of India, ten specimens from different localities in Europe, and two from South Africa, but I can discover no character by which to separate the eastern from the western ones. The dusky marks on rump, under wing-



coverts, and axillaries vary to the same extent in all localities, and there is absolutely no difference in size.

52 (58). *Totanus ater* (SANDER) 129.

The Dusky Sandpiper is only an occasional visitor to the islands during the migrations.

53 (59). *Totanus glareola* (LIN.) 130.

A common breeding bird in Bering Island. Dybowski records it from Copper Island, where, of course, it occurs during the migrations, but during all my rambles over this island I never found it breeding there.

54 (60). *Pavoncella pugnax* (LIN.) 317.

The Ruff seems to be a comparatively rare bird on the Pacific coast of Asia. Only two specimens are known from Bering Island, where they were obtained during the remarkable spring of 1883.

55 (61). *Actitis hypoleucos* (LIN.) 131.

Only observed during the migrations, and even then rather rare.

56 (62). *Terekia cinerea* (GÜLD.) 132.

Only a single specimen from Bering Island during the autumnal migration, 1883. Not recorded by Dybowski from Kamtschatka or the islands, though it probably occurs regularly on the peninsula.

57 (63). *Heteractitis incanus* (GM.) 132.

Rather common in spring in the islands, and probably breeds there.

It is curious that it is the eastern and American species which occurs most commonly in the Commander Islands, the ornithology of which is otherwise so pronounced Palearctic, while the Kamtschatkan species only straggles across the narrow sea occasionally.

58 (64). *Heteractitis brevipes* (VIEILL.) 137.

Only occasional or accidental during the migrations. A single specimen has been taken on Bering Island.

59 (65). *Numenius cyanopus* VIEILL. 317.

1784.—*Scolopax arquata* PENNANT, Cook's Voy. Pacif., III, p. 357 (*nec* LIN.).—*Numenius a.* MIDDEND., Isepipt. Russl., p. 125 (1859).

1817.—*Numenius cyanopus* VIEILLOT, N. Diet. d'Hist. Nat., VIII, p. 306.—SEEB., Ibis, 1884, p. 34.—BLAKIST., Amend. List B. Jap., p. 39 (1884).—STEJNEGER, Res. Orn. Explor. Kamtsch., p. 317 (1885).

1837.—*Numenius australis* GOULD, P. Z. S., 1837, p. 155.—SCHRENCK, Reis. Amurl., I, p. 426 (1860).—RADDE, Reis. Süd. Ost-Sibir., II, p. 338 (1863).—SCHLEG., Mus. P. B. Grall., p. 90 (1864).—DYBOW. & PARVEX, J. f. Orn., 1868, p. 337.—PRZEW., Putesch. Ussur. (n. 178).—TACZAN., J. f. Orn., 1871, pp. 58, 395.—*Id.*, J. f. Orn., 1874, p. 336.—*Id.*, *ibid.*, 1876, p. 201.—BOGDAN., Consp. Av. Imp. Ross., I, p. 82 (1884).

1847.—*Numenius major* TEMM. & SCHLEG., Faun. Jap. Av. (p. 110), (*part.*).—WHITELY, Ibis, 1867, p. 295.—SWINH., Ibis, 1876, p. 334.—BLAKIST. & PRYER, Ibis, 1878, p. 222.—*Id.*, Tr. As. Soc. Jap., VIII, 1880, p. 197.—*Id.*, *ibid.*, X, 1882, p. 115 (*part.*).

- 1862.—*Numenius rufescens* GOULD, P. Z. S., 1862, p. 256.—SWINH., P. Z. S., 1863, p. 318.  
 1871.—*Numenius tahitiensis* SWINHOE, P. Z. S., 1871, p. 410 (*see* GMEL.?).—TACZAN., J. f. Orn., 1873, p. 336.—*Id.*, Bull. Soc. Zool. France, 1876, p. 254.—*Id.*, *ibid.*, 1882, p. 397.—*Id.*, *ibid.*, 1883, p. 340.—*Id.*, Orn. Fauna, Vost. Sibir., p. 57 (1877).—TACZ. & DYB., Bull. Soc. Zool. France, 1884, Extr., p. 2.

An occasional visitor from the mainland. I know of only one specimen killed on Bering Island, viz, one collected by Wosnessenski about forty years ago, and now in the museum of the St. Petersburg Academy. Early in the spring of 1883 I myself observed two large curlews on the beach near Fedoskija, and shot one, which, however, falling into the sea, was carried away by the tide. They most probably belonged to the present species.

From Kamtschatka the Australian Curlew is reported as early as 1784, it being included in Pennant's list of Kamtschatkan birds in the third volume of Cook's Voyage under the name of *Scolopax arquata*. Later on it was obtained by Wosnessenski at the southern extremity of the peninsula, in September, 1847, and Taczanowski has recorded several specimens, obtained by Dr. Dybowski's collectors, as *N. tahitiensis*, a name the original application of which is too dubious to allow its being used for any known curlew.

A specimen in the National Museum (No. 108953), said to have been collected in "Kamtschatka," May 20, 1884, but probably from Ussuri, agrees closely with Japanese specimens.

60 (67). *Phalaropus lobatus* (LIN.) 139.

A common summer visitor to the islands; breeding numerously on Bering Island.

61 (68). *Crymophilus fulicarius* (LIN.) 140.

Once observed by me at sea a few miles off the coast of Bering Island during the autumn of 1882.

Mr. Seeböhm mentions having specimens in his collection from the Kuriles and Kamtschatka (Brit. B. Eggs, III, p. 86 (1885)).

### GRUOIDEÆ.

62 (69). *Grus grus orientalis* (BLYTH)? 317.

The description by the natives of a large long-necked, long-legged bird of a gray color, which has been observed occasionally on Bering Island during the spring migration, accords pretty well with that of a crane. But whether it belongs to the present form, the status of which is very uncertain, or to *Grus canadensis*, is extremely doubtful.

### ANATOIDEÆ.

63 (70). *Anser segetum midendorffi* (SEVERZ.) 141.

Visits Bering Island occasionally during the spring migration.

64 (71). *Anser albifrons gambeli* (HARTL.) 145.

Like the foregoing species.

**65 (72). *Chen hyperboreus* (PALL.) 317.**

During the autumn, 1883, some large white birds with black wings were observed by the natives on the northern lakes of Bering Island

**66 (73). *Branta canadensis hutchinsii* (RICH.) 147.**

A few pairs breed on the northern swamps of Bering Island. In addition to the specimens which I collected, Mr. Grebnitzki has presented the museum with an adult female, obtained June 9, 1884, on Bering Island (Grebn. No. 136, U. S. Nat. Mus. No. 106617).

The dimensions of this specimen are as follows: Wing, 337<sup>mm</sup>; tail feathers, 120<sup>mm</sup>; bill, from frontal feathers, 34<sup>mm</sup>; bill along gape, 36<sup>mm</sup>; bill to hind border of nostrils, 24<sup>mm</sup>; width of bill at nostrils, 17<sup>mm</sup>; tarsus, 75<sup>mm</sup>; middle toe with claw, 66<sup>mm</sup>.

**67 (74). *Branta nigricans* (LAWR.) 149.**

Only one specimen obtained in Bering Island, November, 1882.

The Black Brandt is mentioned as occurring in Kamtschatka as early as 1784, being incorporated in Pennant's list (Cook's Voy. Pacif., III, p. 356) as *Anas bernicla*. It was not obtained, however, by Dr. Dybowski's collectors.

**68 (74<sub>1</sub>). *Philacte canagica* (SEVAST.).**

1800.—*Anas canagica* SEVAST., N. Act. Petrop., XIII, 1800 (p. 346, pl. x).—*Anser canagicus* BRANDT, Bull. Ac. St. Petersb., I, 1836, p. 37.—*Id.*, Dersr. et Icon. An. Ross. Nov., I, p. 11, pl. i (1836).—FINSCH, Abh. Brem. Ver., III, 1872, p. 66.—*Chlophaga canagica* DALL & BANNIST., Tr. Chicag. Ac., I, 1869, p. 296.—DALL, Notes Avif. Aleut. Isl. Unal. Eastw., p. 5 (1873).—ADAMS, Ibis, 1878, p. 429.—*Philacte c.* DALL, Notes Avif. Aleut. Isl. West. Unal., p. 6 (1874).—COUES, Elliott's Aff. Alaska, p. 189 (1875).—ELLIOTT, Mon. Seal-Isl., p. 130 (1882).—NELSON, Cruise Corwin, 1881, p. 95 (1883).—BAIRD, BREWER, & RIDGW., Water-B. N. Am., I, p. 477 (1884).—TURNER, Ark, 1885, p. 158.—*Id.*, Contrib. Nat. Hist. Alaska, p. — (1887).—*Bernicla c.* SAUNDERS, Ibis, 1883, p. 348.

1826.—*Anser pictus* PALLAS, Zoogr. Ross. As., II, p. 233, pl. lxxvii (*acc'* GMEL.).—PALMÉN, Great Intern. Fish. Exh. Lond., Sweden, Spec. Cat., p. 200 (1883).

The capture of two Emperor Geese on Bering Island in the spring of 1885, during the migration (?), is the most interesting addition to the avifauna of the Commander Islands and Kamtschatka since my departure from that region, and, with the exception of the specimens obtained by Nordenskiöld on the Tschuktschi Peninsula, the only record of this species in the Old World, that I am aware of.

The measurements are as follows :

U. S. Nat. Mus. No.	Collector and No.	Sex and age.	Locality.	Date.	Wing.	Tail-feathers.	Exp. culmen.	Tarsus.	Middle toe with claw.
109993	Grebn., 147	ad.	Bering Island . . . . .	Apr. 6, 1886	386	125	37	69	71
.....	do	ad.	do	.....	402	130	41	73	76

69 (75). *Cygnopsis cygnoides* (PALL.) 318.

Dr. Dybowski, in 1882, orally informed me that he had once obtained a head of the present species from Bering Island. This locality is not given, however, in his "Liste des Oiseaux du Kamtschatka."

70 (76). *Olor cygnus* (LIN.) 149.

A species of Swan is a regular, though not numerous, winter visitor to the region. No Commander Island bird has been positively identified as belonging to this species, but there can be little doubt that it is the one which also occurs in Kamtschatka, while the following species is only an accidental visitor.

71 (77). *Olor columbianus* (ORD) 150.

A single young individual, probably only an accidental straggler, was obtained by me on Bering Island in the beginning of November, 1882.

72 (78). *Anas boschas* (LIN.) 152.

Resident, breeding numerous in Bering Island; comparatively rare on Copper Island.

73 (78.1). *Chaulelasmus streperus* (LIN.) 331.

Reported by Dybowski as taken on Bering Island; a straggler only.

74 (79). *Dafila acuta* (LIN.) 153.

Summer visitor; very numerous on Bering Island, sparingly on Copper Island.

75 (80). *Dafila cieeca* (LIN.) 155.

Like the foregoing species.\*

76 (82). *Eunetta falcata* (GEORGI) 156.

Occasionally straggling to Bering Island during the spring migration.

77 (84). *Mareca penelope* (LIN.) 157.

Visits the islands during the migration season. Two additional specimens, males, were sent by Mr. Grebnitzki (U. S. Nat. Mus., Nos. 106618 and 106619).

78 (85). *Mareca americana* (GM.) 158.

A single straggler was picked up dead among the sand-dunes on Bering Island.†

\* *Querquedula querquedula* (LIN.) was not found by me on the islands. By Dybowski it is stated to have occurred on Bering Island (Bull. Soc. Zool. France, 1884, Extr., p. 3), but no particulars are given. The localities as given in the "Liste" referred to, however, are in many instances so incomplete, insufficient, or even quite erroneous, that it can hardly be taken as an authority for occurrences not otherwise explicitly demonstrated. It is not unlikely, however, that a few Garganey may have visited the island during the spring migration of 1883.

† The first record of *Eunetta formosa* (GEORGI) occurring in Kamtschatka is by Fischer, who, in the Bulletin Soc. Nat. Moscou, III, 1831, p. 279, described a male from Petropaulski as a new species under the name of *Anas cucullata*. In the Nouv. Mém. Soc. Nat. Moscou, III, 1834, p. 111, pl. ix, the specimen was redescribed and figured.



79 (86). *Spatula clypeata* (LIN.) 159.

Summer visitor to Bering Island; one of the rarer ducks, but possibly breeding.

80 (87). *Aythya fuligula* (LIN.) 160.

Rare on the islands, but may breed occasionally. An additional specimen (♀) was sent by Mr. Grebnitzki in 1885 (U.S. Nat. Mus., No. 106620). It measures as follows: Wing, 192<sup>mm</sup>; tail-feathers, 55<sup>mm</sup>; exp. culmen, 36<sup>mm</sup>; tarsus, 34<sup>mm</sup>; middle toe with claw, 57<sup>mm</sup>.

81 (88). *Aythya marila* (LIN.) 161.

A common summer visitor, breeding numerously on Bering Island; sparingly on Copper Island.

?? *Aythya ferina* (LIN.) 318.

Very doubtful. Not reported from Kamtschatka.\*

82 (89). *Glaucionetta clangula* (LIN.) 163.

A not very common winter visitor to the islands.

83 (90). *Charitonetta albeola* (LIN.) 166.

An accidental visitor during the winter of 1882-'83.

84 (91). *Histrionicus histrionicus* (LIN.) 166.

Occurs round the islands all the year round, but apparently without breeding.

85 (92). *Clangula hyemalis* (LIN.) 169.

A very common resident, breeding numerously on Bering Island.

86 (93). *Eniconetta stelleri* (PALL.) 170.

Inhabiting the shores of the islands during winter in countless numbers. They arrive in the beginning of November and stay until after the middle of May.

87 (94). *Somateria v-nigra* GRAY. 173.

Breeds in very limited number in a few places on Copper Island, only occasionally flying over to Bering Island, round the shores of which a few may be seen in winter.

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\* *Nyroca nyroca* (GÜLD.) should be added to the list of Kamtschatkan birds as No. 88.1. In a letter to Notary Bruch, dated Petropaulski, October, 1827, and published in Oken's *Isis* for 1829, pp. 523-530, Baron von Kittlitz gives some of his ornithological experience during the voyage. Speaking of the birds of Petropaulski, he says (*tom. cit.*, p. 529): "I recognized very distinctly *Anas crecca* and *leucophthalmos* among some ducks which were killed and shown to me." That in his "Denkwürdigkeiten" he forgets mentioning the White-eyed Duck is of no moment, for he also omits mentioning *A. crecca*, in the identification of which he could not well have been mistaken.

**88 (95). *Somateria spectabilis* (LIN.), 318.**

1758.—*Anas spectabilis* LIN., S. N., 10 ed., I, p. 123.—PENNANT, Cook's Voy. Pacif., III, p. 356 (1784).—PALLAS, Zoogr. Ross. As., II, p. 236 (1826).—MIDDEND., Sibir. Reise, II, ii (p. 233) (1853).—SWINHOE, P. Z. S., 1863, p. 324.—*Somateria s.* CASSIN, Pr. Philada. Acad., 1862, p. 323.—DALL & BANNIST., Tr. Chicago Acad., I, 1869, p. 361.—DALL, Avif. Aleut. Isl. Unal. Eastw., p. 6 (1873).—TACZANOWSKI, Bull. Soc. Zool. France, 1877, p. 42.—*Id.*, *ibid.*, 1883, p. 344.—*Id.*, Orn. Fauna Vost. Sibir., p. 71 (1877).—BEAN, Proc. U. S. Nat. Mus., V, 1882, p. 167.—PALMÉN, Intern. Fish. Exh. London, 1883, Sweden, Spec. Catal., p. 199 (1883).—NELSON, Cruise Corwin, p. 101 (1883).—DYBOW. & TACZAN., Bull. Soc. Zool. France, 1884, Extr., p. 3.—STEJNEGER, Orn. Explor. Kamtsch., p. 318 (1885).—MURDOCH, Ray's Exped. Point Barrow, p. —, (1885).

A winter visitor only, and rather rare. Since my return I have secured a specimen, an adult male, which was collected on Bering Island January 12, 1883.

This specimen is now No. 108951, U. S. National Museum, and measures as follows: Wing, 285<sup>mm</sup>; tail-feathers, 83<sup>mm</sup>; culmen, from anterior border of knob, 31<sup>mm</sup>; height of naked portion of knob from tomium, 37<sup>mm</sup>; tarsus, 45<sup>mm</sup>; middle toe with claw, 64<sup>mm</sup>.

**89 (96). *Oidemia americana* (Sw. & RICH.) 174.**

Occurs sparingly at the islands in winter.

**90 (97). *Oidemia stejnegeri* RIDGW. 174.**

1885.—*Oidemia deglandi* STEJNEGER, Orn. Expl. Kamtsch., p. 174 (*nec* BP.).  
1887.—*Oidemia stejnegeri* RIDGWAY, Man. N. Am. B., p. 112.

Rare in autumn and spring.

**91 (98). *Merganser merganser* (LIN.), 176 331.**

A regular, but not common, summer visitor to Bering Island.

**92 (99). *Merganser serrator* (LIN.) 178.**

Resident, though only few remain all winter; common on Bering Island, less so on Copper Island.

**93 (100). *Merganser albellus* LIN. 178.**

Occasional visitor during the spring migration.

### PHALACROCORACOIDEÆ.

**94 (101). *Phalacrocorax perspicillatus* PALL. 180.**

Formerly an inhabitant of Bering Island; now extinct.

**95 (102). *Phalacrocorax urile* (GM.) 181.**

Resident. Not common, though more numerous on Copper Island than on Bering Island.

**96 (103). *Phalacrocorax pelagicus* PALL. 187.**

Resident. Abundant on both islands.

## TETRAONOIDEÆ.

97 (107). *Lagopus ridgwayi* STEJN. 194.

Resident. Numerous on both islands.

A large series of additional specimens secured by Mr. Grebnitzki confirms the distinctness of this species.

## ACCIPITROIDEÆ.

98 (108). *Falco rusticolus* LIN. 203.

The Gray Gyr Falcon is only a winter visitor to the islands, and is not uncommon.

In the Nouveaux Mémoires de la Société Impériale des Naturalistes de Moscou, Tome XV, livr. 3 (1885), p. 69, Mr. M. Menzbier has published a posthumous memoir by the late Dr. N. A. Severzow, in which the latter describes a new Gyr Falcon as *Hierofalco grebnitzkii*, from a single specimen collected at Bering Island by Mr. Grebnitzki.

The diagnosis of this alleged new species is given as follows:

"Cauda valde apice rotunda, rectricibus externis  $1\frac{1}{2}$ " brevioribus quam mediæ; remigibus  $3 > 2 > 1 > 4 > 5$ . . . . Adultus colore H. gyr Falconi sen. simillimus, sed subcaudalibus solo vexillo externo transversim fasciato, areis nuchalibus duabus, circumscripte albo-fulvescentibus, quarum plumæ anguste nigro marginatæ."

Having seven specimens of the alleged new form from Bering Island and Kamtschatka (my friend Captain Hunter having recently favored me with two specimens, adult and young, from the latter country) against Severzow's one specimen, I may, perhaps, be able to throw additional light on the question, although I do not consider my material quite sufficient yet to settle it entirely to my own satisfaction.

In regard to the alleged plastic differences between *F. grebnitzkii* and its congeners I can state without hesitation that they are of no value whatsoever. In none of my specimens is the tail so strongly rounded as in the one described by Dr. Severzow, the maximum distance between outer and middle tail-feathers being only 1 inch (No. 109994), while in most of the specimens it is less than one-half inch, against  $1\frac{1}{2}$  inches in Severzow's specimen. He lays considerable stress upon the fact that in the type of *F. grebnitzkii* the third primary is longer than the second,\* while in the allied species the second is longer than the third, but this is purely an individual variation, for in all the specimens before me the second primary is decidedly longer than the third, the normal condition in the Gyr Falcons.

The specimens before me show a nearly complete intergradation between the dark upper head with light margins to the feathers and the white head with narrow dark shaft-streaks, so that the coloration of the head is quite unserviceable as a character for separating the Kamt-

\* It seems that in his specimen the third primary is longer than the second in one wing and equal to it in the other (see *op. cit.*, p. 70.)

schatkan birds, and each one of the stages can be matched exactly by specimens from other localities within the extensive range of *F. rusticolus*. This remark also applies to the two "nuchal areas" of a color which Severzow describes as "albo-fulvescens," but which is evidently too deep in the plate accompanying the memoir.

In my "Orn. Expl. Kamtsch.," p. 204, I expressed myself in regard to the Bering Island birds as follows: "My specimens from Bering Island are rather light, however, and may, perhaps, be nearest related to the Greenland race [*F. holbaelli*], if any average differences exist. I should, however, be inclined to the belief that in such case the Pacific bird might be entitled to separate recognition. The paucity and smallness of the dark spots on the under parts would seem to indicate such a possibility . . . ."

The two additional specimens from Kamtschatka, and Severzow's description of his Bering Island bird, certainly go some way to strengthen the above "possibility;" but, as I have been unable to find a tangible character, I shall wait for more material before deciding. Dr. Severzow finds a positive character in the dusky barring of the under tail-coverts, which he describes as only occupying the outer web in *F. grebnitzkii*, while in the allied species it is said to occupy both webs. Now, in point of fact, all my birds have the under tail-coverts nearly uniform white, with only faint traces of streaks (young) or cross-bars (adult), consequently still lighter than Severzow's specimen. In a specimen from Nushagakh, and in one from Saint Paul Island, Pribylof group, I find a similar state of things, while in other specimens from the American side of Bering Sea, and also in most of those from the interior of Alaska, the Arctic coast, Greenland, and Iceland, the stripes or bars are more or less heavy, though very variable even in birds from the same locality and of apparently corresponding age. But the exceptions are too numerous and the variation too great to establish even an average difference. Thus I have before me an adult bird from Disco, Greenland (No. 95127), which has the under tail-coverts colored precisely as described by Severzow in *F. grebnitzkii*. Another (No. 79016), an adult female collected by Governor Fencker, at Godhavn, Greenland, has only a very few and small dusky marks. A young bird from the same country (No. 56051) has only the shafts dusky, and an adult male (No. 51689)\* from the Yukon River, near the mouth of the Poreupine River, Alaska, has only faint traces of dusky in the outer webs.

Should future accumulation of additional material prove that the Kamtschatkan bird (including part of the specimens from Alaska) never have the lower tail-coverts so decidedly barred with dusky as the majority of the American specimens, then it might become a profitable question to discuss whether such a form should correctly stand as *Falco*

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\* This is the specimen which served Mr. Ridgway as the type of his *Falco gyrfalco* var. *sacer* (FORSTER), in Baird, Brewer, and Ridgway, Hist. North Am. Birds, III, p. 115 (1875).



*rusticolus grebnitzkii* or *Falco rusticolus sacer*. At present such a discussion would be a quite unnecessary waste of time and labor.

99 (109). *Falco isianus* BRÜNN. 204.

A few pairs breed on Bering Island, but this species does not seem to remain there over winter.

100 (110). *Falco pealei* (RIDGW.) 296.

Add to the synonymy:

1885.—*Falco perigrinus* DYB. & TACZAN., Bull. Soc. Zool. France, 1884, p. —, Extr. p. 4 (*nec* TUNST.).

Common resident on both islands. An additional specimen has been received from Mr. Grebnitzki (Orig. No. 202, U. S. Nat. Mus. No. 106621).\*

101 (115). *Archibuteo lagopus* (BRÜNN.) 208, 329.

Occasional visitor to Bering Island.

102 (117). *Haliaeetus leucocephalus* (LIN.) 209.

Breeds on Bering Island, though not so common as formerly.

103 (118). *Haliaeetus hypoleucus* RIDGW. 213.

The only known specimen is the type from Bering Island.†

104 (120). *Thalassoætus pelagicus* (PALL.) 217.

Occasional visitor to Bering Island. The old notion that this island is the true habitat of the Great Sea Eagle is quite erroneous. (Pl. IX.)

105 (121). *Pandion haliaëtus* (LIN.) 219.

Occasional visitor to Bering Island.

### STRIGOIDEÆ.

106 (123). *Asio accipitrinus* (PALL.) 220.

Resident on both islands, though less common in winter.

107 (124). *Nyctea nyctea* (LIN.) 221.

Numerous on Bering Island, where it is resident. On Copper Island it seems to be only an occasional winter visitor.

### CUCULOIDEÆ.

108 (126). *Cuculus canorus telephonus* (HEINE) 224.

Accidental on Bering Island.

109 (127). *Cuculus peninsulæ* STEIN. 227.

Straggling individuals from the mainland were shot by me on Copper Island.

\*Dybowski & Taczanowski, "Liste," &c., record "*Hypotriorchis subbuteo*," "*Astur candidissimus*," and "*Accipiter nisus*," from Bering Island, in regard to which see footnote, *antea*, p. 136.]

†Dybowski & Taczanowski, *l. c.*, also give *H. albicilla* as occurring in Bering and Copper Islands. I am satisfied that the statement rests on a misidentification of young birds.

## PICOIDEÆ.

110 (128). *Dryobates purus* STEJN. 230.

Occasionally straggling to Bering Island, where I obtained three specimens, two males and one female.\*

## PASSEROIDEÆ.

111 (132). *Alauda blakistoni* STEJN. 234.

Apparently a regular summer visitor to Bering Island, where a few pairs probably breed.

112 (135). *Corvus behringianus* (DYBOW.) 237.

An all-year resident on both islands, and apparently peculiar to them.

113 (136). *Corvus corone levaillantii* (LESS.) 239.

A rare straggler from the mainland.

114 (138). *Hypocentor aureolus* (PALL.) 244

Visits Bering Island occasionally during the spring migration.

115 (139). *Hypocentor rusticus* (PALL.) 246.

Like the foregoing.

116 (140). *Hypocentor variabilis* (TEMME & SCHL.) 247.

Only a rare straggler from the mainland. The only specimen known from the islands is an adult male, collected by me on Bering Island, June 11, 1883.

117 (142). *Plectrophenax nivalis* (LIN.) 248.

Resident, but not numerous in winter.

118 (143). *Calcarius lapponicus* (LIN.) 250.

Summer visitor. Very common on both islands.

119 (144). *Acanthis linaria* (LIN.) 252.

Winter visitor only; during that season it was the most common of the three Redpolls; it was not met with from the end of May until the beginning of November.

120 (145). *Acanthis linaria holbœllii* (BREHM) 256.

Apparently resident; is the only form breeding on the islands.

121 (146). *Acanthis hornemannii exilipes* (COUES) 258.

Winter visitor only.

122 (148). *Leucosticte griseonucha* (BRANDT) 261.

Resident on both islands, though much more common on Copper Island.\*

\* Dyb. & Taczan., "Liste," &c., give *Micropus pacificus* as occurring on both islands. It is sufficient to refer to the fact that Dr. Dyb., in his former report, only mentions the species from Kamtschatka with a query. No specimens appear to have been taken, and on the islands this species has never been observed.

123 (149). *Fringilla montifringilla* (LIN.) 264.

Regular visitor to Bering Island during the migrations.

In 1885 I received from Mr. Grebnitzki two additional specimens from Bering Island, collected May 20, 1885 (♂ U. S. Nat. Mus. No. 106611, ♀ No. 106612). He remarks that this species has of late been by no means uncommon.

124 (155). *Loxia* sp. inc., 323.

A straggling Crossbill has once been taken on Bering Island, but the species is uncertain.\*

125 (157). *Chelidon tytleri* (JERDON) 269.

Straggles occasionally to Bering Island from the mainland during the spring migrations.

126 (159). *Ampelis garrulus* LIN. 325.

During the spring of 1882 I observed on Bering Island a single Wax-wing in company with two Snowbuntings, but I did not succeed in securing it. Mr. Grebnitzki was more fortunate in 1885, when he obtained a female on May 19 (U. S. Nat. Mus. No. 106610).

This specimen is the palest and grayest of a good series of Palaearctic specimens, both eastern and western, though closely approached by a Japanese specimen (U. S. Nat. Mus. No. 109366, ♀, Iwaki, Hondo, Feb. 21, 1886). I find, however, quite as much individual difference in a large series of North American specimens, apparently without regard to locality. The Bering Island bird, which is, of course, only a rare straggler, measures as follows: Wing, 112<sup>mm</sup>; tail-feathers, 59; exposed culmen, 10.5; tarsus, 20.5; middle toe with claw, 21.†

127 (162). *Butalis sibirica* (GM.) 272.

Exceedingly numerous on Bering Island during the spring migration of 1883. No other record.

128 (162.1). ? *Butalis griseisticta* SWINHOE.

When comparing his Korean specimens of the present genus with the birds I collected on Bering Island, Mr. P. L. Jouy pointed out to me that I had wrongly referred a specimen of what appears to be the present species to *B. sibirica*. I have to plead guilty to the oversight, which could not have taken place had I examined the under wing-coverts. But having obtained it simultaneously with the other Flycatchers and agreeing with them in general appearance, I made no closer examination. It is U. S. Nat. Mus. No. 92535, and was shot on Bering Island June 17, 1883, and not on June 7, as stated in my list (Orn. Expl. Kamtsch., p. 273), and forms a very interesting addition to the fauna of Kamtschatka and the Commander Islands.

\*In regard to the alleged occurrence of *Clivicola riparia* on Bering Island see my Orn. Expl., p. 268, and footnote *antea*, p. —.

†Dybowski's statement (B. S. Z. F., 1883, p. 361) that *Lanius major* is also found on Bering Island apparently lacks all foundation, and the species is not so marked in his and Taczanowski's "Liste," &c.

I refer it to Swinhoe's *B. griseisticta* with some doubt, however, for it differs considerably from two authentic specimens of the latter from China in being much lighter and grayer above and in having the dusky streaks on the under surface much smaller and paler. The white on the supraloral region is broader and continues backwards in a tolerably well-defined superciliary streak. Mr. R. B. Sharpe observes (Cat. B. Brit. Mus., IV, 1879, p. 153) that "specimens differ in the distinctness of the markings on the under surface, which is more striped with brown in some examples than in others." The specimens which he had before him, however, appear to have been collected in the winter quarters of these birds, and the light and dark birds may really belong to two different races. Whether, if such being the case, Wallace's *B. hypogrammica* would be applicable to the light race I do not know, but should the type of the latter name be strictly identical with Swinhoe's *griseisticta*, I would propose *Butalis pallens* for the Bering Island bird.

From *B. sibirica* it is easily distinguished by having the under wing-coverts and the inner edges of the quills drab-gray, while in *B. sibirica* these parts are "wood-brown" (Ridgw., Nomencl. Col., pl. iii, n. 19): and by having sharply-defined smoke-gray longitudinal spots on the breast and the sides of the throat. The specimen in question measures; Total length, 133<sup>mm</sup>; wing, 83<sup>mm</sup>; tail-feathers, 54<sup>mm</sup>; tail beyond wing, 16<sup>mm</sup>.

A single straggler among the many *B. sibirica* that visited Bering Island in the spring of 1883 was shot on June 17.

129 (163). *Erythrosterna albigilla* (PALL.) 273.

Occasional visitor to Bering Island during the spring migrations. In addition to the specimens secured by myself, Mr. Grebnitzki has sent me a female which was captured during the spring of 1885. It (U. S. Nat. Mus. No. 106608) measures as follows: Wing, 66<sup>mm</sup>; tail-feathers, 50<sup>mm</sup>.

130 (164). *Anthus gustavi* SWINHOE 274.

One of the commonest summer visitors to the Commander Islands.\*

131 (166). *Anthus cervinus* (PALL.) 323.

Has been obtained once on Bering Island during the spring migration, according to Dybowski, Bull. Soc. Zool. France, 1883, p. 361.

132 (168). *Budytes flavus leucostriatus* (HOMEY.) 280.

Occasional visitor to Bering Island in spring. No authentic observation of its breeding there is on record.

133 (169). *Motacilla melanope* PALL. 283.

One of the rarer spring migration visitors to Bering Island, although during the extraordinary spring of 1883 this species was not uncommon there.

\* *A. japonicus* from Bering Island, according to Dyb. & Tacz., "Liste," &c.; but see footnote *antea*.



134 (170). *Motacilla ocularis* SWINHOE 281.

A single stray individual was shot on Bering Island June 10, 1882.

135 (171). *Motacilla lugens* KITTL. 287.

A regular spring migration visitor, but does not remain to breed.

136 (172). *Troglodytes pallescens* (RIDGW.) 292.

This species, which is peculiar to the Commander Islands, is, of course, a resident. It is very common on Copper Island, less so on Bering Island.

137 (174). *Parus kamschatkensis* (BR.) 297.

May occasionally straggle over to Bering Island from the mainland, but no specimen has as yet been obtained there. I have recorded, however, an observation, referring no doubt to the present species which on account of its very striking appearance can hardly be mistaken.

133 (177). *Acrocephalus ochotensis* (MIDD.) 299.

An occasional visitor to Bering Island during the migrations. One specimen was shot July 13, and the species may occasionally breed.

139 (179). *Phylloscopus borealis* BLAS. 302.

Visits the islands regularly every spring, and a few may possibly stay and breed during a favorable summer. Mr. Grebnitzki has sent in a specimen shot on Bering Island June 25, 1885 (U. S. Nat. Mus. No. 106607).

140 (181). *Turdus eunomus* TEMM. 307.

A single straggler from the mainland was obtained by me on Bering Island June 3, 1883.

141 (183). *Turdus obscurus* GM. 307.

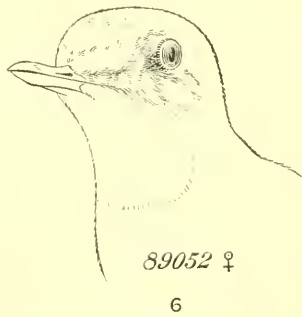
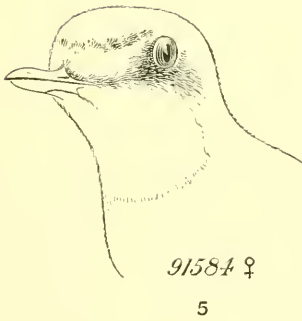
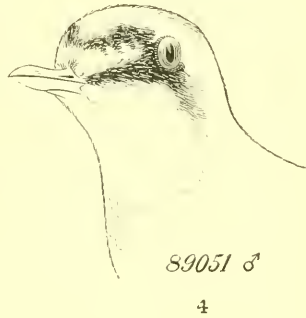
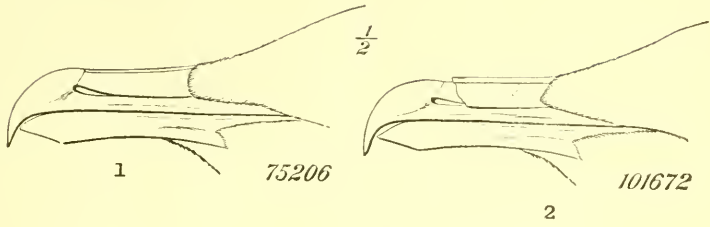
Visits Bering Island occasionally during the spring migration. It was found rather numerous about the middle of June, 1883.

142 (184). *Janthia cyanura* (PALL.) 308.

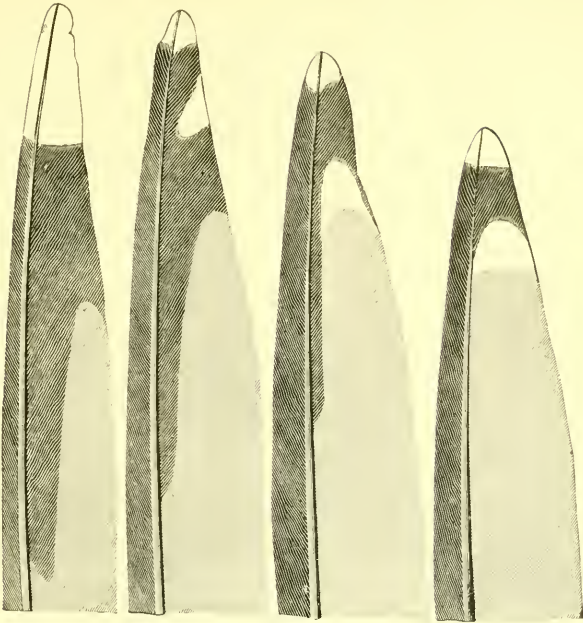
A single straggler was shot on Bering Island May 21, 1883.

143 (186). *Melodes calliope* (PALL.) 309.

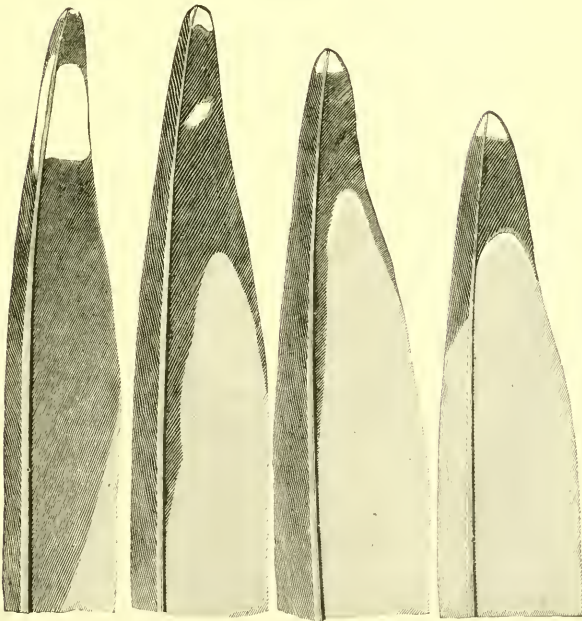
Occasional visitor during the spring migration. In addition to the one I obtained on Bering Island, June 29, 1883, Mr. Grebnitzki has sent me a fine male from the same island, shot June 6, 1885 (Grebn. No. 218; U. S. Nat. Mus. No. 106606).



1.—Bill of *Stercorarius parasiticus*, normal condition (p. 124).  
2.—Bill of *Stercorarius parasiticus*, shedding (p. 124).  
3-6.—Heads of *Egialitis mongola* (p. 127).



1



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1.—First four primaries of *Larus schistisagus*, U. S. Nat. Mus. No. 92885;  $\frac{2}{3}$  nat. size (pp. 121, 122).  
2.—First four primaries of *Larus affinis*, U. S. Nat. Mus. No. 103391;  $\frac{2}{3}$  nat. size (pp. 121, 122).



*Thalassoctes pelagicus* (Pall.). ♂ ad. U. S. Nat. Mus. No. 92732. Petropaulski, Kantschatka, May 24, 1883. L. Stejneger coll. (p. 141).