

## THE BIRDS OF THE KURIL ISLANDS.

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Zoologically speaking, the Kuril islands are a *terra incognita* as yet. During the last one hundred and fifty years various zoologists and collectors have touched at various localities in that interesting chain of volcanic islands, but no systematic collecting or exploring has ever been undertaken. Of all the animals inhabiting that bleak and foggy region the birds are best known, but the following list will best demonstrate how imperfect is our knowledge of even these. The trouble is that only in comparatively few cases have the exact islands and localities been furnished by the observers, and when I state that two faunas meet somewhere in the Kuril chain, viz, that of Yezo in the south and that of Kamchatka in the north, it will at once be seen how extremely unsatisfactory is a specimen or an observation labeled "Kuril islands" only, as most of them are. Very few people realize that this storm-beaten and dangerous archipelago is about 630 miles long, and that it is a very important link in the chain of islands which fence off the curious series of inland seas of Asia's Pacific coast.

Steller was the first naturalist to gather material on some of the Kurils, and most of his observations have been utilized by Pallas in his *Zoographia Rosso-Asiatica*. Steller only visited the northern islands, and most of Pallas's references, therefore, relate to these. Dr. Merck and Langsdorff also furnished some specimens and observations, but nothing of any importance was obtained until Wosnessenski's visit, 1845-46. This intrepid and careful collector wintered on Urup and collected in various of the larger islands. Numerous specimens were sent by him to the Academy of Sciences in St. Petersburg, but unfortunately his collections were never worked up systematically and collectively. What we know about them has to be gathered laboriously from various scattered references in the numerous writings of Brandt, Middendorff, and Schrenck. Since his day no important collections have been made in the Kurils except by Capt. H. J. Snow. During a winter's sojourn on

Iturup and innumerable cruises he has collected a great number of specimens and added most materially to our knowledge of the animals of the archipelago. The birds mostly found their way into the hands of Captain Blakiston and Mr. Pryer, who identified and reported upon most of them in their joint paper, *Birds of Japan*.<sup>1</sup> Many of these specimens are now in the Seebohm collection, now in the British Museum and in the U. S. National Museum, though some were in the Hakodate Museum, the fate of which is not known to me. Unfortunately, only a few of Captain Snow's specimens have any locality attached to them other than Kuril islands, and his own published observations only in rare cases remedy this defect.

The present writer was fortunate in visiting a few of the smaller rocks in the Middle Kurils during August, 1896. He was able to stay ashore only a few hours, and during these he had more important business than collecting birds. He secured a few specimens, however, which have helped to throw some light upon the ornithology of the region. He also visited the village of Shana on Iturup, but was not allowed to shoot any birds, and had to be satisfied with field-glass identifications.

On the map the Kuril islands appear as the natural stepping stones for the summer birds visiting Kamchatka on their regular trips to and from their winter quarters, but I have shown, years ago,<sup>2</sup> that many of Kamchatka's most characteristic migrants do not pass south by way of the Kurils and Japan. I made, however, an admission then which I now think had better not have been made, namely, that when the same species which summers in Kamchatka also is known to regularly breed in, travel through, or winter in Japan proper, it may be safely assumed that it migrates southward directly to Japan along a route following the Kuril chain of islands. That may be the case, or it may not; it certainly does not follow of a necessity.

Simply because *Motacilla lugens* breeds in Kamchatka, the Kurils, and Yezo we are not justified in concluding that the Kamchatkan individuals travel to their winter quarters over the Kurils. They may follow the route of *Chelidon tytleri*, *Anthus gustavi*, or *Carpodacus erythrinus grebnitskii* for all we know. I have elsewhere indicated the possibility of a very slight difference in the relative extent of black and white in the wings of the Kamchatkan birds and those breeding in the south,<sup>3</sup> and I wish to again call attention to the extreme importance of a minute study of these seemingly trifling details for the solution of these and similar zoogeographical questions.

In this respect the ornithology of the Kuril islands becomes highly interesting and important, and it is greatly to be hoped that some day they may be systematically explored by competent zoologists. In order

<sup>1</sup> Trans. Asiatic Soc. Japan, 1882, X, pp. 84-186.

<sup>2</sup> Res. Orn. Expl. Commud. 1818., Kamch., pp. 345, 346.

<sup>3</sup> Proc. U. S. Nat. Mus., 1892, XV, p. 312.

to stimulate the good work and to lay a foundation upon which others may build I have, in the following pages, gathered together all the material and records accessible to me.

The numbers following the systematic names in the list are those of Blakiston and Pryer's Birds of Japan,<sup>1</sup> and the quotations throughout the text of these authors refer to pages in the same paper. Quotations from Pallas refer to his *Zoographia*.

1. URINATOR IMBER (Gunnerus). 184.

According to Pallas<sup>2</sup> Steller observed it in the Kuril islands [i. e., the northern islands] at the mouth of the rivers and in the bays of the sea. The species may have been *U. adamsii*, under which name Snow enumerates it.<sup>3</sup>

2. URINATOR ARCTICUS (Linnaeus). 18.

Blakiston and Pryer<sup>1</sup> give this species as "observed at Eturop." As *U. pacificus* has been obtained at Hakodate both species may occur at Iturup at least during migrations.<sup>4</sup>

3. URINATOR LUMME (Gunnerus). 19.

Enumerated here on the authority of Pallas,<sup>5</sup> who says that it is called *Uacha* by the [northern] Kurilians. Snow says that it is very common in early spring, when numbers are to be seen making their way northward along the islands. A few breed on Paramushir and Shumshu.<sup>7</sup>

4. URIA LOMVIA'ARRA (Pallas). 12.

Pallas gives<sup>6</sup> the Kurilian name as "Hara" and says that it is very numerous about the [northern] Kuril islands, and Blakiston and Pryer notice specimens from the Kuril islands [southern, probably] in the Hakodate Museum. I myself observed the species on the Mushir Rocks August 22, and nesting very numerously on the two Ushishirs, August 24, 25. Snow says: "Plentiful all along the islands. These birds arrive about the end of April, and leave toward the end of September."<sup>9</sup>

5. URIA TROILE CALIFORNICA (Bryant). 11.

The specimens in the Hakodate Museum referred to *Uria troile* by Blakiston and Pryer<sup>10</sup> are probably this species.

<sup>1</sup>Trans. Asiatic Soc. Japan, 1882, X, pp. 84-186.

<sup>6</sup>Page 343.

<sup>2</sup>Page 341.

<sup>7</sup>Snow, Notes Kuril Isl., 1896, p. 31.

<sup>3</sup>Notes Kuril Isl., 1896, p. 31.

<sup>8</sup>Page 345.

<sup>4</sup>Page 94.

<sup>9</sup>Notes Kuril Isl., 1896, p. 30.

<sup>5</sup>Stejneger, Proc. U. S. Nat. Mus., 1892, XV, p. 291.

<sup>10</sup>Page 94.

6. *CEPPHUS CARBO* Pallas. 10.

Pallas<sup>1</sup> in describing this species says that it arrives in spring at the Kuril Islands, but leaves them soon. I am not aware of any other authentic reference to the species in the Kurils. Blakiston evidently did not obtain it from the islands, as it is plain that he correctly distinguished the true *Cepphus carbo*, larger, with larger bill, sooty rather than pure black, and with a white space around the eye, from the true "Kuril Islands black Guillemot," and only considering *C. carbo* as from the Kurils with a "perhaps" added.<sup>2</sup> I myself saw no true *C. carbo*, neither in the middle Kurils nor at Iturup.

7. *CEPPHUS SNOWI* Stejneger.<sup>3</sup> 10½.

*Diagnosis.*—No white area surrounding the eye; wings entirely black, or with narrow white tips to the larger coverts, forming at most three narrow white bands; under wing coverts smoky gray; black of back with a slate-colored gloss; fourteen tail-feathers.

*Habitat.*—Kuril islands.

*Type.*—No. 159351, U.S.N.M. Raikoke, Kuril islands, August 23, 1896. L. Stejneger, No. 7009.

This new species, which I have taken great pleasure in dedicating to Capt. J. H. Snow, of Yokohama, in commemoration of his work of exploration and collecting in the Kuril islands, belongs to the same group as *Cepphus columba* Pallas, with which it shares the general coloration, smoky gray color of under wing-coverts, fourteen tail-feathers, and proportionate greater length of foot, features which distinguish them from *Cepphus grylle* and *C. mandtii*. It is easily distinguished from *C. columba* in the absence of a defined white wing speculum, all the upper wing-coverts being black, either entirely so or the posterior three rows narrowly tipped with white, forming one to three narrow white bars. In more than one-half of the numerous specimens I saw the wings were entirely black. It can be asserted with absolute certainty that *C. columba* does not breed in the Middle or Southern Kurils, where the present species exclusively occupies the suitable localities in untold thousands. This statement may be necessary, as one might be tempted to regard a few isolated specimens as a merely individual melanistic phase of *C. columba* analogous to the so called *C. motzfeldi* of the North Atlantic,<sup>4</sup> which is plainly a melanism.

It is interesting to note that on the American side the type of *C.*

<sup>1</sup>Page 350.

<sup>2</sup>Page 91.

<sup>3</sup>Originally described in the Auk, 1897, p. 201.

<sup>4</sup>See Collet's exhaustive investigation of this phase On a Melanistic Phase of *Uria Grylle* Christiana Vid. Selsk. Forhandl., 1895, No. 1, 14 pp.

*columba* retains the white speculum, even where breeding much farther south than the latitude of the Southern Kurils.

Seebohm mistook this bird for the true *C. columba*, regarding the absence of white on the wing-coverts as indicative of the adult summer plumage.<sup>1</sup>

Snow's Guillemot is very common in the Middle Kurils, and was found by me exceedingly numerous on Mushir, Raikoke, North and South Ushishir. It probably extends in winter to Yezo, and may also occur in southern Kamchatka. The latter suggestion is based upon a specimen in the American Museum of Natural History in New York, which is said to be from Kamchatka. It was evidently collected by Mr. Snow, and there is consequently a reason for suspecting that the real locality may have been one of the Kuril islands. Snow has collected this species on Ketor<sup>2</sup> in June, and Mr. Kifahara secured specimens for the Science College Museum, Tokyo, on Urup early in August.

#### 8. BRACHYRAMPHUS PERDIX (Pallas).

A female collected by Snow in the Kuril islands is in the Seebohm collection.<sup>3</sup>

#### 9. BRACHYRAMPHUS BREVIROSTRIS (Vigors). 9.

Two specimens in the Seebohm collection were collected by Mr. Snow in the Kuril islands.<sup>4</sup>

#### 10. SYNTHLIBORAMPUS ANTIQUUS (Gmelin). 8.

Pallas<sup>5</sup> characterized this bird as abundant about the [northern] Kuril islands, and gave the name by which it was known to the inhabitants there as "Wingorontsch." Since then Wosnessenski found it wintering among the Kurils, probably at Urup.<sup>6</sup> Snow found it breeding there and collected specimens in June.<sup>7</sup> Mr. N. Fukushi obtained it on Shikotan island.<sup>8</sup>

#### PTYCHORAMPUS ALEUTICUS (Pallas).

This species has been collected on the Kuril islands by Wosnessenski, according to Brandt.<sup>9</sup> It has not been seen there by others, and there may be a mistake about the locality.

<sup>1</sup> Seebohm, B. Jap. Emp., p. 275.

<sup>2</sup> Idem, p. 276.

<sup>3</sup> Idem, p. 278.

<sup>4</sup> Idem, p. 279.

<sup>5</sup> Zoogr. Ross.-As., II, p. 368.

<sup>6</sup> Brandt, Mcl. Biol., 1869, VII, p. 219.

<sup>7</sup> Blakiston and Fryer, p. 90; Seebohm, B. Jap. Emp., p. 277.

<sup>8</sup> Blakiston and Fryer, p. 90.

<sup>9</sup> Mcl. Biol., 1869, VII, p. 222.

## 11. SIMORHYNCHUS PYGMAEUS (Gmelin). 5.

Already noted by Pallas<sup>1</sup> as not infrequent about the fourth Kuril island and those beyond, and Wosnessenski observed it during December, January, and February about the Kurils, especially on Urup.<sup>2</sup> Snow found it breeding in numbers on Ushishir in June, and in the Seebohm collection there are nine specimens from that source.

During my visit in 1896 I saw it at Mushir Rocks on August 22, Raikoke August 23, North Ushishir August 24, and on South Ushishir August 25. A young specimen was secured at Raikoke August 23. It measured 190 mm. in total length; tail beyond wings, 12 mm.; iris white; bill dusky, pale at base of tomium and gonys; feet pearl gray, joints darker, webs still more so; under side of tarsus and foot blackish.

In the Science College Museum, Imperial University, Tokyo, there are specimens collected by Mr. Kitahara on Urup in 1895 between July 31 and August 10.

## 12. SIMORHYNCHUS CRISTATELLUS (Pallas). 4.

According to Pallas<sup>3</sup> the Russians at the Eastern Ocean call them by their Kurilian name, *Korokora* or *Turutura*. They are frequent in the further Kuril islands, even to Japan. Blakiston and Pryer (page 89) note specimens collected by Fukushi and specimens and eggs by Snow. In the Seebohm collection there are specimens collected by the latter and by Wosnessenski.<sup>4</sup>

On August 24 and 25, 1896, I found this species very common on both Ushishir islands. Their number on Crater bay, South Ushishir, was simply immense.

## 13. SIMORHYNCHUS PUSILLUS (Pallas). 6.

Wosnessenski found this species wintering in the Kurils, principally at the islands of Iturup, Urup, and Simusir.<sup>5</sup> I have a memorandum from Mr. Kitahara to the effect that a specimen was obtained by him at Kotoi at night on August 15, 1895.

## CERORHINCA MONOCERATA (Pallas).

Seebohm notes one specimen in his collection obtained by Wosnessenski in the Kuril islands and one collected in June by Snow, who found them breeding there.<sup>6</sup> Blakiston and Pryer (page 92) remark, however, that this species does not appear to range far to the north-

<sup>1</sup> Zoogr., II, p. 372.<sup>2</sup> B. Jap. Emp., p. 296.<sup>3</sup> Brandt, Mém. Biol., 1869, VII, p. 229.<sup>4</sup> Brandt, Mém. Biol., 1869, VII, p. 231.<sup>5</sup> Zoogr., II, p. 371.<sup>6</sup> B. Jap. Emp., p. 286.

eastward, Mr. Snow not having noticed it on the Kurils proper, but only as far as Shikotan island.<sup>1</sup> Nevertheless it does range over the entire chain into Kamchatka, though apparently not very common. I myself saw a few specimens at Raikoke on August 23, 1896.

14. CYCLORRHYNCHUS PSITTACULUS (Pallas). 13

Kurilian: Naatschu according to Pallas,<sup>2</sup> who says that it is not infrequent in the sea about the Kuril islands. Two specimens were obtained during the summer of 1881 by Mr. H. J. Snow on the Kuril islands, where he remarked it was a comparatively uncommon bird, not more than half a dozen pairs being met with during a season's sea-otter hunting.<sup>3</sup>

This does not agree with my experience, for I found it common at Raikoke, August 23, 1896, though I suspect it to be rather local, since I saw none at the other islands.

There are specimens in the Seebohm collection, obtained in June by Snow.<sup>4</sup> Snow himself remarks that they are found on the central and northern islands, generally in pairs.<sup>5</sup>

15. LUNDA CIRRHATA Pallas. 2.

A common breeding bird throughout the Kuril chain. Its Kurilian name is given by Pallas as Etubirga or Stupirk,<sup>6</sup> and both Fukushi and Snow found it breeding and brought home specimens.<sup>7</sup>

Between August 22 and 25, 1896, I found it plentiful at all the islands visited by me.

Snow says that this bird begins to arrive at the islands about first week in May. Commences laying about June 15. Leaves the islands soon after the middle of September.<sup>8</sup>

16. FRATERCULA CORNICULATA (Naumann). 3.

According to Pallas<sup>9</sup> the Kurilian name was Matschir. Collected by Mr. H. J. Snow, at the Kuril islands, who remarks that it is not so common as the foregoing species, and seldom seen south of Simusir.<sup>10</sup>

<sup>1</sup> Snow says: Found about Shikotan and the small islands off the east coast of Yezo, where it breeds in large numbers. I have not noticed this bird come so far north as Iturup. (Notes Kuril Isl., 1896, p. 31.)

<sup>2</sup> Zoogr., II, p. 366.

<sup>3</sup> Blakiston and Pryer, p. 89.

<sup>4</sup> B. Jap. Emp., p. 285.

<sup>5</sup> Notes Kuril Isl., 1896, p. 30.

<sup>6</sup> Zoogr., II, p. 364.

<sup>7</sup> Blakiston and Pryer, p. 88; Seebohm, B. Jap. Emp., p. 282.

<sup>8</sup> Notes Kuril Isl., 1896, p. 29.

<sup>9</sup> Zoogr., II, p. 365.

<sup>10</sup> Blakiston and Pryer, p. 89.

The Seeböhm collection contains a specimen by Snow from Shishikotan in June.<sup>1</sup>

I noted it on all the islands of the middle Kurils visited by me in August, 1896.

17. *LARUS SCHISTISAGUS* Stejneger. 70.

Seeböhm was right in referring the so-called *Larus marinus* from the Kuril islands, collected by Snow, to the present species,<sup>2</sup> but is wrong in referring to them as a subspecies of the former. *L. schistisagus* is nearer related to *L. argentatus* than to *L. marinus*.

The slate-backed gull, which I originally described from Kamchatka, is the commonest breeding gull on the Kurils, with the exception of the kittiwake. I found it on all the islands visited by me in August, 1896, and secured a fine specimen on Raikoke August 23. Total length, 655 mm.; wings beyond tail (both worn), 32 mm.; weight, 4½ pounds. Fresh colors: Iris pale straw color; bill yellow, with a crimson spot on mandible near gonys; gape whitish flesh color; naked eye ring purplish gray; feet flesh color, webs darker pink. Fifth primary molting in both wings; pinfeathers all over the body.

The gull called Great Gull, Onemas by the Kurilians, referred to by Pallas under *Larus cachinnans*, is probably the present species, and so is probably also Snow's *Larus glaucus*.<sup>3</sup>

18. *LARUS CANUS* Linnaeus. 69.

Seeböhm says that this species probably breeds on the Kuril islands.<sup>4</sup>

? *LARUS BRACHYRHYNCHUS* Richardson.

An adult specimen is enumerated by Saunders as in the British Museum from Kuril islands? February (H. J. Snow), from the Seeböhm collection. Locality probably incorrect if really this species.

*Larus glaucescens* Naumann, *L. glaucus* Brünnich, and *Larus vegae* (Palmén), being northern species, wintering more or less common in Japan, probably occur on the Kurils during migration, but no authentic specimens are on record so far as I am aware.

19. *RISSA TRIDACTYLA POLLICARIS* Stejneger. 74.

A common breeding bird all over the Kuril chain. I found it numerous on the Mushir Rocks, Raikoke, and the Ushishirs between August 22 and 25, 1896, and Snow obtained specimens at Rashau in June.<sup>5</sup> The Kurilians called it Kiruga or Kerò, according to Pallas.<sup>6</sup> Snow says that they begin to lay about June 10.<sup>3</sup>

<sup>1</sup> B. Jap. Emp., p. 281.

<sup>2</sup> Idem, p. 291.

<sup>3</sup> Notes Kuril Isl., 1896, p. 33.

<sup>4</sup> B. Jap. Emp., p. 294.

<sup>5</sup> Seeböhm, B. Jap. Emp., p. 294.

<sup>6</sup> Zoogr., II, p. 321.

## 20. STERNA CAMTSCHATICA Pallas. 63.

The specimen killed by Mr. Snow at Iturup<sup>1</sup> is in the Seebohm collection.<sup>2</sup> Seebohm's supposition that it breeds there is very dubious.

Whether the Kurilian names Sischtscha or Naatschitsch, quoted by Pallas under *Sterna hirundo*, belong to the present species or possibly to *S. paradisaea* Brünnich is very doubtful, as the latter has not been recorded from the Kuril islands.

Mr. Snow is said to have seen a white tern at the Kurils.<sup>1</sup> It may have been a stray specimen of *Gygis alba*. It should be remarked, however, that he does not mention it in his Notes on the Kuril islands.

## 21. STERCORARIUS PARASITICUS (Linnaeus). 75.

Collected by Snow in the Kuril islands. Specimen in the Hakodate Museum, according to Blakiston and Pryer, and in the Seebohm collection there are three, all of the dark phase.<sup>3</sup>

## 22. STERCORARIUS LONGICAUDUS Vieillot. 74½.

According to Snow, who brought home specimens in 1881, this species is common north of Urup.<sup>4</sup>

## 23. STERCORARIUS POMARINUS (Temminck). 75½.

According to Saunders, there is a specimen in the British Museum from Snow as collected in the Kuril islands.<sup>5</sup>

## 24. DIOMEDIA ALBATRUS Pallas. 77.

Occasional visitor to the Kurils. Pallas gives its Kurilian names, as Pongapith and Ato. According to Seebohm there is a specimen, collected by Snow at Iturup, in the British Museum.<sup>6</sup> I saw one of the dark phase at Raikoke August 23, 1896. The latter is enumerated by Snow as *Diomedea derogata*.<sup>7</sup>

## 25. FULMARIUS GLACIALIS GLUPISCHA Stejneger. 79.

One of the commonest breeding birds in the Kurils. Pallas, on the authority of Steller, says that great multitudes of this bird were captured by the Kurilians of the Fourth and Fifth island and dried in the sun.<sup>8</sup> Snow collected many specimens, according to Blakiston and Pryer and Mr. Seebohm.

August 22 to 25, 1896, I observed it at Mushir Rocks, Raikoke, and Ushishir. On Raikoke they were exceedingly numerous, and in Crater Bay of South Ushishir there were flocks of immense size. The downy

<sup>1</sup> Blakiston and Pryer, p. 103.

<sup>2</sup> B. Jap. Emp., p. 297.

<sup>3</sup> Idem., p. 289.

<sup>4</sup> Blakiston and Pryer, p. 105.

<sup>5</sup> Sharpe, Cat. B. Brit. Mus., 1896, XXV, p. 327.

<sup>6</sup> B. Jap. Emp., p. 262.

<sup>7</sup> Notes Kuril Isl., 1896, p. 34.

<sup>8</sup> Zoogr., II, p. 313.

young were still in the nests at that time. Among all the thousands of fulmars seen not one belonged to the light phase. It should be remarked, however, that Seebohm records a Kuril island skin in his collection from Snow as typical of the light form.<sup>1</sup> It is probably to these light-colored birds that Snow's *Fulmarus glacialis rodgersi* are to be referred.<sup>2</sup> At Shana, Iturup, I also observed dark fulmars, September 4 to 6, 1896.

26. PUFFINUS TENUIROSTRIS (Temminck). 83.

Frequent about the Kuril islands.<sup>3</sup> "About the northern, more particularly," Snow remarks.<sup>2</sup>

27. PUFFINUS GRISEUS (Gmelin). 78.

Snow has collected this species in the Kurils,<sup>4</sup> and a specimen of his is in the British Museum.<sup>5</sup> According to Blakiston and Pryer, Snow had not observed it north of Urup.<sup>6</sup>

28. OCEANODROMA LEUCORHOA (Vieillot). 80.

Breeding probably throughout the chain. Blakiston and Pryer mention specimens from Shikotan and the Kuril islands in the Hakodate and Sapporo College museums.<sup>6</sup> Schrenck gives it as obtained by Wosnessenski at Shumshir and southeast of Simushir and Urup.<sup>7</sup>

29. OCEANODROMA FURCATA (Gmelin). 81.

Common breeding bird throughout the Kuril islands. Mr. Merck, of Billings's expedition, brought home plenty of specimens from the further Kuril islands, according to Pallas.<sup>8</sup> Snow found it breeding in various places. Seebohm specifies<sup>9</sup> Rashau Island, and gives as authority for the statement Blakiston and Pryer,<sup>10</sup> but I can not find that they ever made it. His last reference<sup>11</sup> concerns Blakiston's specimen (No. 1819), which, according to Blakiston's catalogue, was not from the Kurils at all, but from Kamchatka.

30. HÆMATOPUS OSCULANS Swinhoe. 93.

Pallas says that it is a frequent bird in the Kurils.<sup>12</sup> Snow observed it at the Kurils, according to Blakiston and Pryer,<sup>13</sup> and one of his specimens is in Seebohm's collection.<sup>14</sup>

*Hæmatopus niger* is by Pallas, its original describer, credited to the

<sup>1</sup> B. Jap. Emp., p. 269.

<sup>2</sup> Notes Kuril Isl., 1896, p. 34.

<sup>3</sup> Pallas, Zoogr., II, p. 314.

<sup>4</sup> Seebohm, Ibis, 1884, p. 33.

<sup>5</sup> Saunders, Cat. B. Brit. Mus., XXV, p. 387.

<sup>6</sup> Blakiston and Pryer, p. 106.

<sup>7</sup> Reise Amurl., pp. 515, 516.

<sup>8</sup> Zoogr., II, p. 315.

<sup>9</sup> B. Jap. Emp., p. 271.

<sup>10</sup> Ibis, 1879, p. 218.

<sup>11</sup> Idem, 1884, p. 33.

<sup>12</sup> Zoogr., II, p. 129.

<sup>13</sup> Blakiston and Pryer, p. 109.

<sup>14</sup> B. Jap. Emp., p. 313.

Kuril islands, with a Kurilian name, Tachaican.<sup>1</sup> There is scarcely a doubt that the statement is erroneous, being probably based upon some of Merck's mislabeled specimens.

31. *ARENARIA INTERPRES* (Linnaeus). 92.

Collected by Mr. Snow at the Kurils,<sup>2</sup> and Seebohm thinks it probable that they breed there; he had two specimens from that locality by Snow.<sup>3</sup> I only saw a small flock on Srednoi Flat Rock, August 24, 1896.

32. *CHARADRIUS SQUATAROLA* (Linnaeus). 91.

Here enumerated solely upon the statement of Seebohm that the Gray Plover passes the Kurils, Japan, and the Loo-Choo islands in some numbers on the spring and autumn migration.<sup>4</sup> I am not aware of specimens having been recorded.

33. *CHARADRIUS DOMINICUS FULVUS* (Gmelin). 84.

The same remarks apply to this species. Seebohm says: The Asiatic Golden Plover passes the Kurils, the Japanese islands, and the Loo-Choo islands in great numbers both on the spring and the autumn migrations.<sup>5</sup>

34. *AEGIALITIS MONGOLA* (Pallas). 88.

Since Merck obtained this bird in the Kurils during Billings's expedition<sup>6</sup> it has been observed there by Snow, and specimens are in the Hakodate Museum<sup>7</sup> and one, a female, in the British Museum.<sup>8</sup>

35. *GALLINAGO GALLINAGO* (Linnaeus). 117.

Blakiston and Pryer give the common snipe as occurring in Iturup, probably on Blakiston's authority.<sup>9</sup> I myself saw one on that island at Shana, on September 6, 1896.

36. *GALLINAGO MINIMA* (Brünnrich). 119.

Observed by Blakiston on Iturup.<sup>10</sup>

37. *GALLINAGO AUSTRALIS* (Latham). 116.

Snow enumerates this species without particulars.<sup>11</sup> It probably occurs on the most southern islands.

<sup>1</sup> Zoogr., II, p. 131.

<sup>2</sup> Blakiston and Pryer, p. 109.

<sup>3</sup> B. Jap. Emp., p. 332.

<sup>4</sup> Idem, p. 304.

<sup>5</sup> Idem, p. 303.

<sup>6</sup> Pallas, Zoogr., II, p. 136.

<sup>7</sup> Blakiston and Pryer, p. 108.

<sup>8</sup> Seebohm collection; Sharpe, Cat. B. Brit. Mus., p. 226.

<sup>9</sup> Blakiston and Pryer, p. 114.

<sup>10</sup> Idem, p. 115.

<sup>11</sup> Notes Kuril Isl., 1896, p. 35.

## 38. ARQUATELLA COUESI Ridgway.

Pallas received this species from the Kuril islands, collected by Merck; Wosnessenski obtained it in Urup, one of the specimens now being in the Seebohm collection with two others collected in the Kurils<sup>1</sup> by Snow. Seebohm<sup>2</sup> calls it a rare winter visitor to the Kuril islands, but I think he is mistaken and that the bird breeds there. I saw numerous specimens on Srednoi Flat Rock and on the beach of North Ushishir on August 24, 1896. A bird of the year was secured and is now in the U. S. National Museum (No. 159353).

## 39. TRINGA CRASSIROSTRIS Temminck and Schlegel. 104.

Snow is the only collector who has brought this species from the Kurils, a female, collected in May, being in the Seebohm collection.<sup>3</sup> The specimen is almost certainly from one of the southern islands, most likely from Iturup.

## 40. ACTODROMAS RUFICOLLIS (Pallas). 107.

Collected repeatedly by Snow on the Kuril islands,<sup>4</sup> and five of his specimens belonging to the Seebohm collection are now in the British Museum.<sup>5</sup> I obtained it on Srednoi Flat Rock on August 24, 1896.

## 41. ACTODROMAS DAMACENSIS (Horsfield). 108.

Blakiston has recorded this species as obtained in the Kurils during 1882.<sup>6</sup>

## 42. PELIDNA ALPINA PACIFICA (Coues). 105.

Collected by Snow on the Kurils, where Seebohm thinks that it breeds. Six of these specimens are in the Seebohm collection.<sup>7</sup>

On Srednoi Flat Rock, August 24, 1896, I observed a small flock and secured several specimens for identification.

## 43. LIMOSA LAPPONICA BAUERI (Naumann). 101.

Pallas notes this species as occurring in the [northern] Kuril islands on the authority of Steller.<sup>8</sup> A specimen in Seebohm's collection from the Kurils was collected by Snow in July;<sup>9</sup> it is a female, now in the British Museum.<sup>10</sup>

<sup>1</sup> Sharpe, Cat. B. Brit. Mus., XXIV, p. 581.

<sup>2</sup> B. Jap. Emp., p. 335.

<sup>3</sup> Sharpe, Cat. B. Brit. Mus., p. 602.

<sup>4</sup> Blakiston, Chrysanthemum, April, 1883, p. 172; Amend. List. B. Jap., p. 37.

<sup>5</sup> Sharpe, Cat. B. Brit. Mus., XXIV, p. 517.

<sup>6</sup> Chrysanthemum, April, 1883, p. 172.

<sup>7</sup> B. Jap. Emp., p. 335; Sharpe, Cat. B. Brit. Mus., XXIV, p. 611.

<sup>8</sup> Zoogr., II, p. 181.

<sup>9</sup> B. Jap. Emp., p. 329.

<sup>10</sup> Sharpe, Cat. B. Brit. Mus., XXIV, p. 380.

## 44. TOTANUS ATER (Sander). 97.

Captain Blakiston<sup>1</sup> states that the Kuril islands during the past season have furnished us with No. 97, *Totanus fuscus* Linnaeus, in fine breeding plumage, the only record of this species for the islands.

## 45. TOTANUS GLAREOLA (Linnaeus). 96.

According to Blakiston and Pryer<sup>2</sup> there are specimens of this species in the Hakodate Museum from the Kuril islands.

## 46. TOTANUS NEBULARIUS (Gunnerus). 95.

Enumerated by Snow as *T. glottis*, without further particulars.<sup>3</sup>

## 47. TOTANUS OCHROPUS (Linnaeus). 98.

The same remark applies to this as to the foregoing species.

## 48. ACTITIS HYPOLEUCOS (Linnaeus). 100.

Blakiston and Pryer note it<sup>2</sup> as seen at Eturop island, probably by Blakiston, in which case the identification may be relied on.

## 49. HETERACTITIS BREVIPES (Vieillot). 94.

Mr. Snow has collected it at the Kurils,<sup>4</sup> and one of his specimens is in the Seebohm collection.<sup>5</sup> I saw a specimen on North Ushishir, August 21, 1896.

## 50. NUMENIUS LINEATUS (Cuvier). 121.

Enumerated by Snow, but without particulars.<sup>3</sup>

## 51. NUMENIUS CYANOPUS (Vieillot). 123.

This is probably the curlew to which the Kuril name *Etschkamamuč*, given by Pallas<sup>6</sup> refers. Blakiston and Pryer<sup>7</sup> refer to it as collected at Iturup.

## 52. NUMENIUS PHAEOPUS VARIEGATUS (Scopoli). 124.

Also obtained in Iturup, according to the same authority.

## 53. PHALAROPUS LOBATUS (Linnaeus). 112.

Blakiston and Pryer mention specimens from the Kuril islands,<sup>8</sup> and Seebohm had two specimens in his collection from Mr. Snow.<sup>9</sup> I observed a flock at Mushir Long Rock on August 22, 1896.

<sup>1</sup> Chrysanthemum, April, 1883, p. 172.

<sup>2</sup> Page 110.

<sup>3</sup> Notes Kuril Isl., 1896, p. 35.

<sup>4</sup> Blakiston and Pryer, p. 109.

<sup>5</sup> Sharpe, Cat. B. Brit. Mus., XXIV, p. 761.

<sup>6</sup> Zoogr., II, p. 168.

<sup>7</sup> Page 116.

<sup>8</sup> Page 113.

<sup>9</sup> B. Jap. Emp., p. 319; Cat. B. Brit. Mus., XXIV, p. 704.

## 54. CRYMOPHILUS FULICARIUS (Linnaeus). 113.

Merek observed it at the Kurils,<sup>1</sup> where it occurs during the migrations, and specimens collected by Snow are in the museum at Hakodate<sup>2</sup> and British Museum.<sup>3</sup>

## 55. ANSER SEGETUM MIDDENDORFFI (Severzof). 22.

Pallas speaks of an *Anser vulgaris*, called by the Kurilians *Kuitup*, by the Japanese *Gau*.<sup>4</sup> It may be this form.

## 56. ANSER ALBIFRONS GAMBELI (Hartlaub). 24.

Captain Snow enumerates the white-fronted goose, without further particulars.<sup>5</sup>

He also enumerates the *Anser minutus*, lesser-fronted goose. As it is not known from Kamchatka the record must be considered doubtful.

## 57. BRANTA CANADENSIS HUTCHINSII (Richardson). 28.

Captain Snow has found this species breeding. A few, he says, have been noticed breeding on Ushishir and Ekarma. A nest with 6 eggs and another with 7 were found on May 16. Young ones were found on June 20.<sup>6</sup>

## 58. BRANTA NIGRICANS (Lawrence). 29.

Beyond Pallas's statement that it is called *Núkespu* by the Kurilians, no record of its occurrence is known to me.<sup>6</sup>

## 59. CYGNOPSIS CYGNOIDES (Pallas). 26.

The only record of this species is that of Pallas,<sup>7</sup> who says: I have specimens before me sent from the Kuril islands.

## 60. OLOR CYGNUS (Linnaeus). 20.

A few frequent the islands. Noticed on Iturup in winter.<sup>8</sup>

## 61. ANAS BOSCHAS (Linnaeus). 30.

Mr. Snow, according to Blakiston and Pryer,<sup>9</sup> says that it is not numerous on the Kurils. Pallas gives the Kurilian names of the mallard as *Sa'ungitsch*, or *Swaitschitsch*.<sup>10</sup>

## 62. ANAS ZONORHYNCHA Swinhoe. 31.

All there is known about this species in the Kurils is the statement by Blakiston and Pryer that Mr. Snow has found a few on the Kurils. They were probably only found on the southern islands.

<sup>1</sup> Pallas, Zoogr., II, p. 205.

<sup>2</sup> Blakiston and Pryer, p. 113.

<sup>3</sup> Sharpe, Cat. B. Brit. Mus., XXVII, p. 697.

<sup>4</sup> Zoogr., II, p. 223.

<sup>6</sup> Notes Kuril Isl., 1896, p. 31.

<sup>6</sup> Zoogr., II, p. 229.

<sup>7</sup> Idem, II, p. 219.

<sup>8</sup> Snow, Notes Kuril Isl., 1896, p. 31.

<sup>9</sup> Page 96.

<sup>10</sup> Zoogr., II, p. 256.

## 63. DAFILA ACUTA (Linnaeus). 36.

The Kurilian name, according to Pallas,<sup>1</sup> was *Pakarichu* or *Clagi*. No further particulars are on record.

## 64. NETTION CRECCA (Linnaeus). 37.

Obtained at the Kurils by Mr. Snow.<sup>2</sup>

## 65. NETTION FALCATA (Georgi). 39.

Emmerated by Snow without further comment.<sup>3</sup>

## 66. NETTION STREPERA (Linnaeus). 42.

Same remark as foregoing species.

## 67. MARECA PENELOPE (Linnaeus). 35.

Same remark.

## 68. AYTHYA FULIGULA (Linnaeus). 45.

Kurilian name, according to Pallas, *Jaitschir*.<sup>4</sup> Snow found it on the southern Kurils and Shikotan.<sup>5</sup>

## 69. AYTHYA MARILA (Linnaeus). 43.

Emmerated by Snow without particulars.<sup>3</sup>

## 70. GLAUCIONETTA CLANGULA (Linnaeus). 49.

The Kurilians, according to Pallas, had a name for the golden eye, namely, *Tschachtschir*.<sup>5</sup>

## 71. HISTRIONICUS HISTRIONICUS (Linnaeus). 48.

Abundant along all the Kurils, where it breeds. The writer has not been able to find the eggs, but in June, 1888, captured a female with several young ones which were but a day or two old.<sup>6</sup> I saw a flock of this species at South Ushishir on August 25, 1896.

## 72. CLANGULA HYEMALIS (Linnaeus). 50.

Called *Aanga* by the Kurilians, according to Pallas.<sup>7</sup> Plentiful in early spring, when it is found to be making its way northward to its breeding grounds in the Arctic. An occasional straggler gets left behind and is seen on the islands in the summer.<sup>6</sup>

## 73. ENICONETTA STELLERI (Pallas). 51.

Blakiston and Pryer<sup>8</sup> specify Iturup as the island where Mr. Snow shot specimens during winter, adding that specimens from the Kurils are in the Hakodate Museum.

<sup>1</sup> Zoogr., II, p. 280.

<sup>2</sup> Blakiston and Pryer, p. 97.

<sup>3</sup> Notes Kuril Isl., 1896, p. 32.

<sup>4</sup> Zoogr., II, p. 266.

<sup>5</sup> Zoogr., II, p. 272.

<sup>6</sup> Snow, Notes Kuril Isl., 1896, p. 32.

<sup>7</sup> Zoogr., II, p. 276.

<sup>8</sup> Page 100.

## 74. SOMATERIA SPECTABILIS (Linnaeus).

The king eider was called by the Kurilians and Kamchodals *Mitù*, according to Pallas, who adds that this species is only seen in spring at the Kurils.<sup>1</sup> It is probably to this species that Snow's *Somateria v-nigra* (?), of which he says that a few of these have been seen about the most northern islands in early spring, should be referred.<sup>2</sup>

## 75. OIDEMIA AMERICANA Swainson and Richardson. 53.

Mr. Snow, who has collected several specimens in the Kurils, says that this species is generally found there on the rivers during summer.<sup>3</sup> Snow, in his Notes on the Kuril Islands,<sup>4</sup> adds that a few breed on the northern islands.

## 76. OIDEMIA STEJNEGERI Ridgway. 52.

Blakiston and Pryer<sup>5</sup> quote Mr. Snow as saying that he has found a few on the Kurils, but that they go farther north to breed. One of Snow's specimens from the Kurils is in the British Museum, and is enumerated by Salvadori<sup>6</sup> as *Oidemia carbo* Pallas, a name strictly synonymous with *O. fusca* Linnaeus, for which it was only proposed as a substitute and entirely inadmissible for the eastern species. It is probably this specimen which is figured in Seeböhm.<sup>7</sup>

## 77. MERGANSER MERGANSER (Linnaeus). 55.

Breeds on the Kurils, according to Snow.<sup>8</sup> Pallas gives the Kurilian name as *Tuipe*.<sup>9</sup>

## 78. MERGANSER SERRATOR (Linnaeus). 56.

Snow is also authority for the statement that this species breeds on the Kurils.<sup>8</sup> He adds that it occurs in winter on Iturup.

## 79. PHALACROCORAX URILE (Gmelin). 59.

According to Pallas it is rather rare about the Kuril islands, where it was called *Uril*. The flesh, he says, is poor, but if thoroughly boiled overcomes hunger; when roasted it is exceedingly bad, except when done after the fashion of the Kurilians, who roast the birds, especially the young ones, with feathers and entrails, in a small pit filled with glowing ashes, and then peel them.<sup>10</sup>

## 80. PHALACROCORAX PELAGICUS Pallas. 58.

Specimen and eggs of this species were obtained by Snow on the Kuril islands.<sup>11</sup>

<sup>1</sup> Zoogr., II, p. 237.

<sup>2</sup> Notes Kuril Isl., 1896, p. 32.

<sup>3</sup> Blakiston and Pryer, p. 100.

<sup>4</sup> Page 32.

<sup>5</sup> Page 100.

<sup>6</sup> Sharpe, Cat. B. Brit. Mus., XXVII, p. 412.

<sup>7</sup> B. Jap. Emp., p. 250.

<sup>8</sup> Notes Kuril Isl., 1896, p. 32.

<sup>9</sup> Zoogr., II, p. 287.

<sup>10</sup> Idem, II, pp. 301, 302.

<sup>11</sup> Blakiston and Pryer, p. 102.

A third species of cormorant is enumerated by Snow with a query, but no particulars are given.<sup>1</sup>

81. HERODIAS ALBA (Linnaeus). 134.

Beyond Snow's statement that he has seen the great egret on Iturup<sup>2</sup> nothing is known concerning the occurrence of this species. Whether it was the true *H. alba* or the smaller subspecies *modesta*, under which name it is enumerated by Snow, it would be impossible to say without specimens.

82. LAGOPUS, species? 156½.

Ptarmigans are found on the northern Kurils, but which species is not known. A specimen obtained by Captain Snow on Shumshu, the first island from Kamchatka, is described by Blakiston and Pryer<sup>3</sup> as measuring 200 mm. in the wing, and as being white with the exception of the *black* tail feathers and *line through the eye*. This last sentence shows that it was not a willow grouse (*L. lagopus*), but that it belonged to the *L. mutus* group, and probably the same species as the one occurring in Kamchatka.

83. TURTUR GÉLASTIS (Temminck). 159.

Snow has observed it on Iturup.<sup>4</sup>

84. FALCO PEALEI Ridgway.

The references to *Falco peregrinus* as a common bird on the Kuril islands, from Pallas<sup>5</sup> to Snow,<sup>6</sup> who says that it is found throughout the whole chain of islands, seem to belong to the present species. Mr. J. H. Gurney wrote to Mr. Robert Ridgway on August 15, 1891, as follows: I find among my father's peregrine falcons two specimens from the Kuril islands which are young birds and are very dark indeed all over, and especially on the breast, belly, and under the wing. They are far the darkest we have and are evidently your *Falco pealei*.

I observed a blackish falcon on North Ushishir August 24, 1896, which I have no hesitation in pronouncing *F. pealei*.

85. FALCO SUBBUTEO Linnaeus. 321.

86. FALCO AESALON Linnaeus. 322.

Snow enumerates these two species without further particulars. They are probably among those which mostly frequent the southern islands.<sup>6</sup>

<sup>1</sup> Notes Kuril Isl., p. 32.

<sup>2</sup> Blakiston and Pryer, p. 129; Snow, Notes Kuril Isl., p. 36.

<sup>3</sup> Idem, p. 35.

<sup>4</sup> Zoogr., I, p. 326.

<sup>5</sup> Page 128.

<sup>6</sup> Notes Kuril Isl., p. 38.

## 87. ACCIPITER NISUS (Linnaeus). 318.

The above remark applies equally to the present species. It would be very interesting to know whether the sparrow hawk occurring in the Kurils is the typical *A. nisus* or *A. pallens* Stejneger, inhabiting Kamchatka, and occasionally occurring in Japan.

## 88. CIRCUS CYANUS (Linnaeus). 324.

## 89. BUTEO JAPONICUS Temminck and Schlegel. 313.

Collected by Snow on the Kuril islands.<sup>1</sup>

## 90. HALIAEETUS ALBICILLA (Linnaeus). 307.

Already known to Pallas as occurring in the Kurils,<sup>2</sup> probably the northern ones. It has also been observed by Snow on Iturup.<sup>3</sup>

Snow<sup>4</sup> also notes that he saw on Iturup what he took to be *Aquila chrysaetus*. It is more likely, however, to have been a young *H. albicilla*.

## 91. THALASSOAEETUS PELAGICUS (Pallas). 308.

Observed by Mr. Snow on Iturup.<sup>3</sup>

## 92. MILVUS MELANOTIS Temminck and Schlegel. 310.

According to Blakiston and Pryer,<sup>5</sup> very numerous at Iturup during the fishing season. I saw several specimens at the village of Shana, on the same island, September 4 to 6, 1896.

## 93. PANDION HALIAEETUS (Linnaeus). 309.

Enumerated by Snow, without further particulars.<sup>3</sup>

## 94. ASIO OTUS (Linnaeus). 301.

## 95. ASIO ACCIPITRINUS (Pallas). 300.

## 96. SYRNIUM URALENSE (Pallas).

Similarly enumerated by Snow, the latter as *Syrnium uralense rufescens*. It is hardly necessary to say that it is not this form.<sup>6</sup>

## 97. CUCULUS CANORUS TELEPHONUS (Heine). 163.

Known to the Kurilians as *Kakkok*.<sup>7</sup> It is probably this species which Snow observed on the southern Kurils.<sup>8</sup>

## 98. ALCEDO BENGALENSIS Linnaeus. 175.

Blakiston and Pryer<sup>9</sup> indicate this species as occurring in Iturup. It is not found in Snow's list, however.

<sup>1</sup> Blakiston and Pryer, pp. 182, 185. <sup>6</sup> Stejneger, Proc. U. S. Nat. Mus., 1893, XVI, p. 626.

<sup>2</sup> Zoogr., I, p. 349.

<sup>7</sup> Pallas, Zoogr., I, p. 443.

<sup>3</sup> Notes Kuril Isl., p. 38.

<sup>8</sup> Notes Kuril Isl., p. 36.

<sup>4</sup> Idem, p. 38.

<sup>9</sup> Page 136.

<sup>5</sup> Page 181.

## 99. DRYOBATES JAPONICUS (Seebohm). 167.

Seebohm says that his examples from the Kuril islands and from Yezo are, on an average, whiter on the under parts than those from southern Japan.<sup>1</sup> In Blakiston's manuscript catalogue I find an entry of a specimen of *D. major* (No. 2729) from the Kurils (Snow), designated as Hakodate Museum, No. 420. On southern Kurils only, according to Snow.<sup>2</sup>

## 100. DRYOBATES MINOR (Linnaeus). 168.

Beyond Snow's note that it occurs on the southern Kurils only<sup>2</sup> nothing is definitely known, and specimens are highly desirable, in order to ascertain its status as compared with the Kamchatkan *D. immaculatus* Stejneger.

## 101. CHAETURA CAUDACUTA (Latham). 187.

Mentioned by Snow, without particulars.<sup>2</sup>

## 102. MICROPUS PACIFICUS (Latham). 186.

Found on Iturup, according to Blakiston and Pryer.<sup>3</sup>

## 103. ALAUDA BLAKISTONI Stejneger. 266½.

The skylark was observed on the northern Kuril islands by Steller,<sup>4</sup> and Blakiston and Pryer note having specimens from the Kuril islands.<sup>5</sup> The latter were collected by Blakiston in Iturup, September 8 to 10, 1881, and two of them are now in the U. S. National Museum (Nos. 96300, 96301).<sup>6</sup>

## 104. OTOCORIS ALPESTRIS (Linnaeus). 267.

Pallas having given a Kurilian name for this bird, namely, *Likint-schir*,<sup>7</sup> it has been stated to occur in the Kuril islands.

## 105. ANTHUS CERVINUS (Pallas). 227.

The red-throated pipit probably breeds on the Kurils. Snow collected two specimens (Blakiston, Nos. 2055, 2056).

*Locality*.—Shumshu; date, June 7, 1876, according to Seebohm,<sup>8</sup> one of which is in the U. S. National Museum. Fukushi also obtained specimens on the Kurils in July, which had apricot coloring on the throat, according to Blakiston and Pryer;<sup>9</sup> while Blakiston himself collected two specimens (Nos. 2776, 2777) in Iturup on September 10, 1881, the former of which is in the U. S. National Museum.

<sup>1</sup> B. Jap. Emp., p. 151.

<sup>2</sup> Notes Kuril Isl., p. 36.

<sup>3</sup> Page 140.

<sup>4</sup> Pallas, Zoogr., I, p. 521.

<sup>5</sup> Page 168.

<sup>6</sup> Stejneger, Proc. U. S. Nat. Mus., 1892, XV, p. 304.

<sup>7</sup> Zoogr., I, p. 520.

<sup>8</sup> B. Jap. Emp., p. 117.

<sup>9</sup> Page 151.

## 106. ANTHUS JAPONICUS (Temminck and Schlegel). 226.

This species has been collected in the Kurils by Snow, probably on Iturup, there being one specimen in the U. S. National Museum through Blakiston. In Seebohm's collection there were three specimens obtained by Wosnessenski in Urup more than fifty years ago.

## 107. ANTHUS MACULATUS Hodgson. 225.

In the U. S. National Museum there is a specimen collected in the Kurils by Captain Snow. The specimen is No. 2806 of Blakiston's collection.

## 108. BUDYTES CITREOLUS (Pallas). 230½.

A single specimen of a young *Budytes* from Ketoi (No. 96236, U. S. N. M.; Blakiston, No. 2781) has been referred to *B. tairanus* by Mr. Seebohm,<sup>1</sup> because it has the head dark olive-green, the eye-stripe yellow, and the ear coverts dark brown. I have carefully examined the same specimen and have come to quite a different conclusion. A glance at the bill at once suggests the distinctness of this bird, both from *B. leucostriatus* and from *B. tairanus*, it being excessively narrow and pointed, while, as Mr. Brooks<sup>2</sup> correctly says, *B. tairanus* has even a heavier bill than *B. flarus*. In shape and size of the bill No. 96236 agrees exactly with Cashmere specimens of *B. citreolus*, and the yellow eyebrow only corroborates the correctness of referring this specimen to the latter species; the wash over the gray of the top of the head is distinctly yellowish, the abdomen of the same delicate pale canary yellow as the adult *B. citreolus*, with the white under tail-coverts in marked contrast.

This identification is also more satisfactory inasmuch as it does no violence to the geographical distribution of the two species as generally understood. Pallas says of *B. citreolus*<sup>3</sup> that he had it ex regionibus ad Lenam, Camtschatea et insulis versus Americam sparsis, while Keyserling and Blasius<sup>4</sup> expressly mention the Kurils (ostwärts bis auf die Kurilen).<sup>5</sup> *B. tairanus*, on the other hand, seems to be more

<sup>1</sup>Ibis, 1884, p. 39.

<sup>2</sup>Idem, 1884, p. 240.

<sup>3</sup>Zoogr., I, p. 503.

<sup>4</sup>Wirbelth. Europas, I, p. xlix.

<sup>5</sup>The range given by Sharpe (Cat. B, Brit. Mus., X, p. 506) is evidently too restricted, as proven by his own references. He says: "From northeastern Europe to the valley of the Yenesej"; but numerous collectors have found this species breeding and migrating farther east. Thus Radde records it as common in Transbaikalia, and Dybowski found it breeding and migrating at the rivers forming the Amur, east of the Jablonnoi Mountains (Journ. f. Ornith., 1868, p. 331; 1874, p. 335); Przewalski found it breeding in southeastern Mongolia, and migrating in Ordos, Halka, and Kansu (Rowley's Orn. Misc., II, p. 193); and David records it from Peking and Shanghai (Ois. de la Chine, p. 304). This bird seems to be local in its distribution, being found in patches over a vast territory, and to travel over very narrow migration routes.

southerly in its distribution, and, if it is to be found in Japanese territory outside of Formosa, must be looked for in the islands nearest to the latter.

I may add that in his *Birds of the Japanese Empire* Seebohm seems to have abandoned his identification of the Kuril islands' bird, as *B. taivanus*. The birds from the Kurils, he now says, have buffy white (not yellow) eyebrows. This remark is evidently based upon a specimen in the Pryer collection, and Seebohm's identification of it as belonging to the form of *B. flavus* occurring in the Commander islands (i. e., *leucostriatus*) may be quite correct, but it must be remembered that he has not had an opportunity to compare it with the specimen referred to above, which certainly differs from *B. leucostriatus*, the only species thus far found in the Commander islands.

109. BUDYTES FLAVUS LEUCOSTRIATUS (Homeyer).

According to Seebohm,<sup>1</sup> there is one in the Pryer collection from the Kurils. See remarks under foregoing species.

110. MOTACILLA MELANOPE Pallas. 230.

Seebohm notes that this species is probably only a summer visitor to the Kurils, whence he had examples collected by Mr. Snow.<sup>2</sup>

111. MOTACILLA LUGENS Kittlitz. 229½.

Pallas regarded this species as a constant variety of *M. alba*, and described it—without giving it a formal name, however—from specimens sent him from Kamchatka and the Kurils by his friend Billings.<sup>3</sup> It was afterwards observed on Urup by Wosnessenski, where it arrived in 1845, on April 20 (old style), according to Middendorff.<sup>4</sup> Snow also collected it in various islands, one of his specimens being in the U. S. National Museum. As a matter of fact, it appears to breed on all of them. I saw it on Mushir Long Rock on August 22; at Shana, Iturup, September 4 to 6, and at North Ushishir August 24, 1896. On the latter island I shot two specimens, one of which is now in the U. S. National Museum. They were molting all over, both quills and small plumage. One which was too badly damaged to be skinned matched exactly No. 96211, U.S.N.M., described by me,<sup>5</sup> except that the first two primaries still belonged to the old plumage.

*Motacilla grandis* Sharpe is enumerated by Snow<sup>6</sup> under the name *M. japonica*, as occurring in the Kurils, without further particulars. I am not aware that Kuril specimens are recorded.

<sup>1</sup> B. Jap. Emp., p. 115.

<sup>2</sup> Idem, p. 114.

<sup>3</sup> Zoogr., I, p. 506.

<sup>4</sup> Iseipt. Russl., p. 124.

<sup>5</sup> Proc. U. S. Nat. Mus., 1892, XV, No. 904, p. 309.

<sup>6</sup> Notes Kuril Isl., p. 37.

## 112. ALSIONAX LATIROSTRIS (Raffles). 208.

Blakiston and Pryer are authority for the statement that this species is common throughout Japan, including Yezo and the Kurils.<sup>1</sup> If so, it is probably confined to the southern islands. I am not aware of any record of Kuril specimens.

*Hemichelidon siberica* (Gmelin) is also enumerated by Snow as occurring in the Kurils,<sup>2</sup> but without reference to specimens. The identification may therefore be regarded as doubtful.

## 113. CYANOPTILA BELLA (Hay). 207.

Captain Snow, who is undoubtedly familiar with the blue flycatcher, enumerates it (under the name *C. cyanomelana*) as occurring in the Kurils, probably the southern ones only.

## PHOENICURUS AUROREUS (Pallas). 253.

According to Steller, the redstart occurs in the Kurils and in Kamchatka,<sup>3</sup> but as it has not been found in latter country by later travelers the reference is possibly doubtful, though Steller could hardly be mistaken in the identification.

## 114. MELODES CALLIOPE (Pallas). 252.

There is a record of Wosnessenski observing this species on Urup in 1845, May 9 and September 20 (old style),<sup>4</sup> since which time it has been collected in various islands by Snow, Kitabara, and myself. Kitabara was fortunate enough to secure a young in the first plumage on Uhirnoi, while I collected a young female after the first molt on North Ushishir, on August 24, 1896. In the Science College Museum, Tokyo, there is a male (No. 787) collected on Shikotan on July 7. These species, therefore, probably breed on all the large islands of the chain.

In 1892, while considering the specimens in Henson's Hakodate collection, I expressed a suspicion that the Kamchatkan nightingales breeding on the Kurils, at least the southern ones, may be of a somewhat different coloration from those breeding in Kamchatka and Siberia and partly migrating over Japan.<sup>5</sup> Last year while in Tokyo I examined the material in the Science College Museum and found that three of the specimens from central Japan have the normal black band behind the scarlet throat and the ash-colored chest, while the breeding bird from Shikotan (No. 787) tallies exactly with Blakiston's May specimens from Yezo (Nos. 96269, 96271, U.S.N.M.), which have the fore neck and breast of a very pale clay color, devoid of gray, and only a few dusky spots to indicate the blackish band. The russet on the upper side of the tail and upper tail coverts in this specimen is also brighter. This strengthens my suspicion, but I do not consider the

<sup>1</sup>Page 147.<sup>2</sup>Notes Kuril Isl., p. 36.<sup>3</sup>Pallas, Zoogr., 1, p. 476.<sup>4</sup>Middendorff, Iseipt. Russl., p. 125.<sup>5</sup>Proc. U. S. Nat. Mus., 1892, XV, p. 321.

material sufficient for separating the Kuril birds formally, but would suggest that the question be kept in mind and attempts made to secure additional material.

The young in the first plumage being hitherto undescribed I submit the following description of Kitahara's Chirnoi specimen:

*Young in first plumage.*—Chirnoi islands, Kurils. Science College Museum, Imperial University, Tokyo. Upper surface dark brownish gray, each feather with an ochraceous shaft-streak which widens toward the tip and is edged with blackish; under side ochraceous, paler on throat and belly, the feathers more or less broadly edged with dusky, giving a scaly appearance especially to the breast; wings above dark brownish gray, the outer edge of the feathers margined with tawny olive, and the coverts, except primary coverts, with an apical spot of a lighter tint approaching ochraceous; tail-feathers dark brownish gray, the outer margins washed with tawny olive, especially toward the base.

*Dimensions.*—Wing, 75 mm.; tail-feathers, 57 mm.; exposed culmen, 10 mm.; tarsus, 30 mm.; middle toe with claw, 22 mm. Wing formula: First primary, 25 mm. long; second shorter than sixth; third equals fourth; longest, 7 mm. longer than second.

115. MONTICOLA MANILLA (Boddaert). 256.

Snow enumerates this species, under the name *M. solitaria*, as occurring in the Kurils, but there is no reference to specimens and I do not know of any being on record.

Curiously enough there are no records of thrushes occurring in Iturup or any of the other islands.

116. PRATINCOLA MAURA (Pallas). 254.

There is one specimen in the Seebohm collection, from the Kurils,<sup>1</sup> collected by Snow, but no further locality is given.

117. LOCUSTELLA OCHOTENSIS (Middendorff). 238.

Breeding on the Kurils, and probably found on all the islands covered by any grass at all, for on August 22, 1896, I found a small colony on the little Mushir Long Rock, where they had a peculiar way of concealing themselves in the rank *Elymus* grass, darting out and in between the tufts with great dexterity.

At Shana, Iturup, on September 6, after a heavy gale offshore quite a number of these birds came on board the vessel, and two were preserved, both young females.

Wosnessenski collected this species on Urup in 1844, and one of his specimens is in the Seebohm collection.<sup>2</sup> Fukushi collected it on Iturup, according to Blakiston and Pryer.<sup>3</sup>

<sup>1</sup> B. Jap. Emp., p. 57.

<sup>2</sup> Idem, p. 73.

<sup>3</sup> Page 158.

## 118. ACANTHOPNEUSTE BOREALIS XANTHODRYAS (Swinhoe). 242.

In the St. Petersburg Academy of Sciences there are three specimens of this form from the Kurils, all collected by Wosnessenski in 1844, two collected in Urup, August 12 and 13, and one in Paramushir, June 26 (old style).<sup>1</sup>

No specimens of typical *A. borealis* are recorded from the Kurils. The so-called *Motacilla trochilus*, which, according to Steller, is abundant in the Kurils,<sup>2</sup> refers probably to one or both forms of this species.

## 119. TROGLODYTES FUMIGATUS KURILENSIS (Stejneger). 245½.

This form was originally described from a specimen collected by Captain Snow on Shiashkotan in July, 1881.<sup>3</sup> On August 24, 1896, I collected two specimens,<sup>4</sup> male and female, on North Ushishir, where they were fairly common among the driftwood. The exposed culmen of the male measures 14 mm., of the female, 13 mm., their bill being consequently considerably larger than in the typical *T. fumigatus*.

Whether the latter is found on the Kurils nearest Yezo is quite doubtful, as no specimens appear to be in the collections.

## ? HIRUNDO DASYPUS (Bonaparte). 185.

Whether this is the swallow which the Kurilians, according to Pallas,<sup>5</sup> called *Kuja kava* and which Snow mentions as occurring on the southern Kurils is very doubtful, as no specimens seem to be on record.

## 120. SITTA AMURENSIS ALBIFRONS (Taczanowski).

Beyond the specimen from the Kurils in the U. S. National Museum (No. 96150), collected by Snow and noted by me,<sup>6</sup> nothing is known of the occurrence of this form in the chain. It is probable that the Kamchatkan Nuthatch only occur in the most northern islands and that true *S. amurensis* may inhabit the large southern ones.

## 121. PARUS SEEBOHMI Stejneger. 216.

The marsh-tit collected by Snow in the Kurils (No. 2799, Blakiston)<sup>7</sup> is now in the U. S. National Museum (No. 96145). I first regarded it as doubtfully belonging to Taczanowski's *P. brevirostris*,<sup>8</sup> but upon receiving genuine specimens of the latter, was obliged to establish the Japanese birds as *P. seebohmi*.<sup>9</sup> The exact locality of the specimen in question is unknown, but is probably Iturup.

<sup>1</sup>Pleske, Ornithographia Rossica, II, 2, p. 171.

<sup>2</sup>Pallas, Zoogr., I, p. 491.

<sup>3</sup>Proc. U. S. Nat. Mus., 1888, p. 548.

<sup>4</sup>Nos. 159358, 159359, U.S.N.M.

<sup>5</sup>Zoogr., I, p. 532.

<sup>6</sup>Proc. U. S. Nat. Mus., 1886, IX, p. 393.

<sup>7</sup>Seebohm, Ibis., 1881, p. 37.

<sup>8</sup>Proc. U. S. Nat. Mus., 1886, IX, pp. 381, 394.

<sup>9</sup>Idem, 1892, XV, p. 343.

## 122. PARUS KAMTSCHATKENSIS (Bonaparte). ?

The occurrence of this species is only known from a specimen mentioned by Pražák as having been obtained in Paramushir.<sup>1</sup> It is somewhat doubtful, however, whether this specimen really belongs to the typical Kamchatkan bird, for he says that it is considerably grayer and approaching *P. baicalensis*. It is not unlikely that Paramushir is inhabited by a distinct race.

## 123. PARUS VARIUS Temminck and Schlegel. 218.

Enumerated by Snow, but no particulars given.<sup>2</sup>

## 124. AEGITHALOS CAUDATUS (Linnaeus). 220.

Same remark as above.

## 125. CORVUS CORONE ORIENTALIS (Eversmann). 190.

## 126. CORVUS MACRORHYNCHUS JAPONENSIS (Bonaparte). 189.

Both species noted by Snow as occurring on the southern Kurils only,<sup>2</sup> and by Blakiston and Pryer<sup>3</sup> specifically as found on Iturup. Seeböhm had specimens of both species collected by Snow in the Kurils.<sup>4</sup>

## 127. CORVUS CORAX Linnaeus. 191.

The raven's Kuril name is given by Pallas as *Paskur*.<sup>5</sup> Snow collected it and sent specimens to Blakiston and Pryer, by whom they were distributed to the Hakodate Museum<sup>6</sup> and to Seeböhm's collection.<sup>7</sup> Snow says that the raven is to be found on every island in the chain, always in pairs, and that it breeds early, the young being found about the middle of June.<sup>2</sup> I myself observed it on Mushir Rocks August 22, on Raikoke August 23, and on North Mushir August 24. A specimen, excessively lean and in wretched plumage, was obtained the following day on South Ushishir (No. 159365, U.S.N.M.)

## 128. NUCIFRAGA CARYOCATACTES JAPONICUS Hartert. 197.

On Ketoi island there is a patch of fir trees on a slope facing the northern shore, according to Snow, and amongst these trees he came across a colony of nutcrackers. Pallas<sup>8</sup> mentions expressly that the Zirbelfichte (*Pinus pumila*) occurs on Ketoi, and Captain Snow's find of these isolated colonies of trees and birds together in such an unlikely place is highly interesting.

## 129. PICA CAMTSCHATICA Stejneger.

Pallas gives *Kakuk* as the Kurilian name for the magpie,<sup>9</sup> and it is consequently not improbable that the specimens which Seeböhm got

<sup>1</sup>Ornith. Jahrb., 1895, VI, p. 70.

<sup>2</sup>Notes Kuril Isl., p. 36.

<sup>3</sup>Page 141.

<sup>4</sup>B. Jap. Emp., pp. 95, 96.

<sup>6</sup>Zoogr., I, p. 380.

<sup>5</sup>Page 142.

<sup>7</sup>B. Jap. Emp., p. 91.

<sup>8</sup>Nene Nord. Begtr., 1783, IV, p. 118.

<sup>9</sup>Zoogr., I, p. 389.

from Mr. Dresser as having been procured by Mr. Snow on the Kuril islands were really collected on the northernmost islands. According to Seeborn, the specimens belong to the Kamchatkan form described by me, while one, he says, might be called *Pica caudata leucoptera*. This is evidently only a young bird of the same form.

130. STURNIA VIOLACEA (Boddaert). 203.

Snow says that this bird was noticed on Iturup<sup>1</sup> and Nakisbon, and Pryer<sup>2</sup> adds that it was observed there in September.

131. EMBERIZA PERSONATA Temminck. 272.

This bird was common at Shana, Iturup, during my visit, September 4 to 6, 1896, and Blakiston and Pryer<sup>3</sup> mention it also as collected on that island. One of these specimens (No. 2773, Blakiston), collected September 18, 1881, is in the U. S. National Museum.

132. EMBERIZA YESSOENSIS (Swinhoe). 277.

133. EMBERIZA CIOPSIS Bonaparte. 268.

134. EMBERIZA FUCATA Pallas. 269.

135. EMBERIZA RUSTICA Pallas. 271.

136. EMBERIZA AUREOLA Pallas. 273.

The enumeration of these five species by Captain Snow<sup>4</sup> is the only evidence of their occurrence in the Kurils. The first three are probably confined to the southern islands, the last mentioned to the northern ones, while *E. rustica* may occur in both groups.

137. PLECTROPHENAX NIVALIS (Linnaeus). 279.

Seeborn had in his collection two specimens obtained by Mr. Snow from the Kuril islands.<sup>5</sup>

138. CALCARIUS LAPPONICUS (Linnaeus).

An adult male in full breeding plumage collected by Snow in the Kurils is in the Seeborn collection.<sup>5</sup> Curiously enough both these species are left out of Snow's list.

139. PINICOLA ENUCLEATOR (Linnaeus). 291.

Two specimens are known to have been collected in the Kurils, both apparently without definite locality. One of them was in the Kaitakushi collection in Sapporo,<sup>6</sup> the other, a specimen in female plumage, was obtained by Messrs. Owston, Snow & Co.'s collectors, in 1882.<sup>7</sup>

<sup>1</sup> Notes Kuril Isl., p. 36.

<sup>2</sup> Page 146.

<sup>3</sup> Page 170.

<sup>4</sup> Notes Kuril Isl., p. 37.

<sup>5</sup> B. Jap. Emp., p. 140.

<sup>6</sup> Blakiston and Pryer, p. 175.

<sup>7</sup> Blakiston, Chrysanthemum, April, 1883; Amend. L. B. Jap., p. 63.

## 140. LOXIA CURVIROSTRA Linnaeus. 295.

According to Blakiston and Pryer,<sup>1</sup> Mr. Snow obtained a crossbill at the Kurils. No further information given.

## 141. CARDUELIS SPINUS (Linnaeus). 285.

Enumerated by Snow, without particulars.<sup>2</sup> I saw the siskin at Shana, Iturup, September 4 and 5, 1896.

## 142. CHLORIS KAWARAHIBA (Temminck). 283.

The green finch described by Steller<sup>3</sup> was undoubtedly this species, and probably from one of the northern islands. In the Pryer collection acquired by Seebohm there were two specimens obtained by Snow from the Kuril islands.<sup>4</sup> It is not mentioned in Snow's list.

## 143. LEUCOSTICTE BRUNNEONUCHA (Brandt). 288.

Breeds in the Kurils, where it was obtained by Fukushi in July.<sup>5</sup>

With reference to the variety B 1, of Pallas,<sup>6</sup> from the Kurils, I refer to what I wrote on a previous occasion.<sup>7</sup>

Cabanis' *Montifringilla pustulata* and *M. arctoa* from the Kuril islands, in the museum at Berlin,<sup>8</sup> have probably an erroneous locality assigned to them. Bonaparte and Schlegel in their *Monographie des Loxiens* figure one of the specimens of the last-mentioned species most beautifully (Plate 45, lower figure), and in the text<sup>9</sup> refer to it as killed on the Kuril islands and obtained from the collection of Pallas. It is very suspicious, however, that Pallas in his *Zoographia* does not mention having the typical form from the Kurils.

## 144. PASSER MONTANUS (Linnaeus). 281.

Enumerated by Snow with a query,<sup>2</sup> but I saw it at Shana, Iturup, September 4 and 5, 1896.

## 145. URAGUS SANGUINOLENTUS (Temminck and Schlegel). 289.

Blakiston and Pryer are authority for the statement that Mr. Snow had specimens from the Kurils.<sup>10</sup>

<sup>1</sup> Page 176.

<sup>2</sup> Notes Kuril Isl., p. 37.

<sup>3</sup> Pallas, *Zoogr.*, II, p. 14.

<sup>4</sup> B. Jap. Emp., p. 128.

<sup>5</sup> Blakiston and Pryer, p. 174.

<sup>6</sup> *Zoogr.*, II, p. 22.

<sup>7</sup> Proc. U. S. Nat. Mus., 1892, XV, No. 904, pp. 351, 355.

<sup>8</sup> Ersch & Gruber, *Encyclop.*, 1849, I, p. 215; Lichtenstein, *Nomencl. Av. Mus. Berol.*, 1854, p. 47.

<sup>9</sup> Page 59.

<sup>10</sup> Page 174.

## 146. PYRRHULA GRISEIVENTRIS KURILENSIS Sharpe.

Wosnessenski observed the bullfinch on Urup, May 8, 1845, and beginning of August (old style), according to Middendorff<sup>1</sup> and Seeböhm has specimens collected by him in the Kurils in July.<sup>2</sup> Blakiston and Pryer<sup>3</sup> say that the species is very numerous on Iturup in September, and I found it so there at Shanaa, September 4, 5, 1896. The specimens I saw were young ones molting from the first, buff plumage into the gray one. Two were preserved for the U. S. National Museum.

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<sup>1</sup> Iscript. Russl., p. 124.

<sup>2</sup> B. Jap. Emp., p. 129.

<sup>3</sup> Page 176.