

REVIEW OF JAPANESE BIRDS.**By LEONHARD STEJNEGER.****I.—THE WOODPECKERS.**

(With a colored plate.)

When Capt. Thomas Blakiston two years ago presented his magnificent collection of Japanese birds to the United States National Museum he also had the kindness to place his manuscript notes and catalogues in the hands of the present writer, for the purpose of publishing a complete hand-book of the ornis of Japan.

It is my intention to write a comprehensive and reliable guide to Japanese ornithology, with ample descriptions of all the known forms, from original Japanese specimens. At first it was thought that the material at my disposal, consisting of the collections of Blakiston and Jouy, would be sufficient for the purpose. During the progress of my investigations, however, I found that much more is needed, if the work shall have any claim to completeness.

Formerly it was sufficient to know that a bird was from "Japan." If the description of a Japanese species was found to fit a Japanese specimen approximately, the latter was identified as that species without further comparison. If the original specimen was described from Nagasaki, and the second one, believed to be the same, came from North Yesso, the habitat of the species was given as embracing the whole of Japan. The first collections were made in the southern part, in the island of Kiusiu, and the new forms deposited in the museum in Leyden and described by Temminck. The next collections of any importance, viz, those of Blakiston and Whitely, were made at the northern extremity of the Empire, in the neighborhood of Hakodadi, and went to England. It was taken for granted that the species from the north were identical with those from the south. On the other hand, when, later on, forms similar to those occurring in Yesso were discovered in the Middle Island, or Hondo, as it should now be called, they were unhesitatingly referred to the same species. During his second sojourn in Japan, however, Captain Blakiston discovered that many Siberian forms were found only in Yesso, while, on the other hand, numerous species inhabiting Hondo never crossed the Tsugaru Strait regularly, and furthermore, that several representative forms occur on both sides of this strait which forms a zoogeographical line separating the Siberian and Manchurian sub-regions, and which has fitly been termed "Blakiston's line." Most of the identifications of the specimens collected by him were made by

Swinhoe, however, many important forms being overlooked or misunderstood, and it is but fair to state that Mr. Blakiston himself was aware of many of these distinctions, neglected by the British ornithologist, as sufficiently proved by numerous notes in his manuscripts. He has also hinted at the line Owari-Tsuruga being a dividing line separating off zoogeographically the southwestern part of Hondo, but this is as yet a hypothesis, the collections from the portion of Hondo in question, which have reached ornithologists, being too small and sporadical to allow of any sure conclusions.

A careful comparison of the Blakiston collection, which consists chiefly of specimens from Yesso, with the fine collections from the central part of Hondo, sent home by Mr. P. L. Jouy, has made it clear to me that there is a much greater diversity between the birds from the different parts of Japan than has hitherto been supposed. But in such a case it is necessary that large series of birds from all parts of the country be brought together before its ornithology can be satisfactorily treated of. Notwithstanding the excellent work done so far, our knowledge of Japanese ornithology is only fragmentary, for not only are the northern and southwestern parts of Hondo, as well as the large island of Shikoku, nearly unexplored, but the entire western slope of Hondo, that is, the whole portion of it which faces the Sea of Japan, is a complete *terra incognita*, ornithologically speaking. If we take into consideration the great difference in the climate between the eastern and the western shore of this great island, we must concede that we have no right to conclude that a species also occurs on the western side, opposite the locality where it has been collected on the eastern shore.

American ornithologists will not wonder at hearing that species apt to break up into local forms have done so in a group of islands which in extent corresponds to the coast from the Gulf of California to Vancouver Island, or from the southern extremity of Florida to Nova Scotia, with a variation of climate fully as great as that of the two last mentioned localities; with high mountain ranges, and studded with volcanoes eight thousand to twelve thousand feet high; with a vegetation "one of the richest and most varied on the globe," characterized in the south by the bamboo, the rice, the mulberry tree, and the tea-plant, while in the north the firs form extensive forests. and with "a temperature ranging from the almost Siberian winters of Yesso to the tropical heats of Kiu-Shiu," it would indeed be an extraordinary phenomenon, and quite reverse to what takes place in other countries of similarly varying conditions, were the birds of Japan uniform all through that empire.

The trinomial system of nomenclature cannot be applied in most cases, inasmuch as the intermediate localities are as yet unexplored, and may yield intermediate forms. It is my principle to admit trinomials only where intergradation is unquestionable, and, hence, for the present, I chiefly apply binomials. As to the necessity of distinguish-

ing allied forms, be the difference ever so slight, I may simply refer to what I have said on several other occasions.*

On account of this unsatisfactory state of things, I have resolved to publish preliminary reviews of some of the most perplexing groups in order to solicit specimens and advice from fellow ornithologists, and to induce those who have the opportunity to attempt the solution of some of the questions, if possible, in the field. *My remarks should be regarded and criticized as tentative essays, and their conclusions as merely hypothetical and provisional.*

Ornithologists interested in Japanese ornithology are therefore earnestly requested to assist in gathering a material that will enable me to satisfactorily fulfill the task of writing a complete hand-book of the Japanese ornithology. The United States National Museum is willing to procure by exchange specimens necessary for elucidating the fauna, and such examples which the owner is unwilling to part with, will be returned as soon as possible, without expense to him. The present writer is also willing to identify any collection of Japanese birds which may be submitted to him for inspection, and due credit will always be given for any favor rendered. He is also desirous of obtaining all publications, even the smallest notice, relating to the birds of Japan, and offers in exchange his own publications as far as the supply reaches, or such publications of the Smithsonian Institution and the National Museum as may be desired.

All packages and specimens should be addressed to the Smithsonian Institution; books, letters, and other communications, to the writer.

The Code of Nomenclature adopted by the American Ornithologists' Union is adopted. The number in parenthesis in front of the names refers to Blakiston and Pryer's list (1882), from which are also derived the Japanese names. All references are verified by myself unless the number of the page or plate is included in parenthesis. The measurements are in millimeters unless otherwise stated.

ORDER PICARIÆ.

Six families of Picarians have representatives in Japan. The different forms known to occur there may be referred to their respective families by means of the following artificial key:

- a*¹. Secondaries nine or more, much longer than the primary coverts.
- b*¹. First primary longer than secondaries.
 - e*¹. Two toes behind, two in front.....CUCULIDÆ.
 - e*². One toe behind, three in front.
- d*¹. Anterior toes not soldered together.
 - e*¹. Anterior toes at base united by a pliable membrane; middle claw pectinated.....CAPRIMULGIDÆ.
 - e*². Anterior toes free to the base; middle toe not pectinated.CORACIADIDÆ.

* Proc. U. S. Nat. Mus., VII, 1884, pp. 78-80. Res. Ornith. Explor. Kantsch., pp. 345-348.

- d*². Anterior toes soldered closely together for the greater part of their length (syndactylous) ALCEDINIDÆ.
- b*². First primary much shorter than secondaries.
- c*¹. Three toes in front UPUPIDÆ.
- c*². Two toes in front PICIDÆ.
- a*². Secondaries not more than seven, much shorter than the primary coverts, MICROPODIDÆ.

By taking anatomical characters into consideration a more natural classification may be obtained (cf. L. Stejneger in Stand. Nat. Hist., IV, 1885, pp. 371 *seq.*):

- a*¹. Ambiens muscle present (superfamily *Cuculoidea*) CUCULIDÆ.
- a*². Ambiens muscle absent.
- b*¹. Semitendinosus muscle present.
- c*¹. Deep plantar tendons synpelmous.
- d*¹. Dorsal feather-tract furcate between the shoulders (superfamily *Coracioidæ*).
- e*¹. Ten tail feathers CAPRIMULGIDÆ.
- e*². Twelve tail feathers CORACIADIDÆ.
- d*². Dorsal feather-tract simple between the shoulders (superfamily *Alcedinoidæ*) ALCEDINIDÆ.
- c*². Deep plantar tendons schizopelmous (superfamily *Upupoidæ*) UPUPIDÆ.
- c*³. Deep plantar tendons antiopelmous (superfamily *Picoidea*) PICIDÆ.
- b*². Semitendinosus muscle absent (superfamily *Micropodoidea*) MICROPODIDÆ.

FAMILY PICIDÆ.

The family of Woodpeckers may be divided naturally into two sub-families, the Wrynecks and the Woodpeckers proper, the Japanese forms of which may be easily distinguished as follows:

Jynginæ: Tail-feathers soft, rounded at the ends.

Picinæ: Tail-feathers stiff, pointed towards the ends.

SUBFAMILY JYNGINÆ, WRYNECKS.

JYNX LINN.

- =1758.—*Jynx* LINN., S. N. 10 ed., 1, p. 112 (type *J. torquilla*).
- =1760.—*Torquilla* BRISSON, Ornith., IV, p. 3 (same type).
- =1766.—*Jynx* LINN., S. N. 12 ed., I, p. 172 (emend.).
- =1800.—*Jynx* RETZIUS, Fauna Suecica, p. 100 (emend.).
- =1854.—*Jynx* REICHENBACH, Handb. Spec. Ornith., p. 431 (emend.).
- =1863.—*Jynx* CABANIS and HEINE, Mus. Hein., IV, p. 4 (emend.).

(174) *Jynx torquilla* LINN.

Wryneck.

Arisu.

- 1753.—*Jynx torquilla* LINN., S. N., 10 ed., 1, p. 112.—*Jynx t.* LINN., S. N., 12 ed., I, p. 172 (1766).—TEMME, Man. d'Orn., 2 ed., III, p. 117. (1835).—TEMME & SCHLEG., Fauna Jap. Aves (p. 75) (1849).—BLAKIST., Amend. List. B. Jap., p. 47 (1884).—*Jynx t.* SEEBOHM, Ibis, 1884, p. 180.
- 1826.—*Picus jynx* PALLAS, Zoogr. Ross. As., 1, p. 416.
- 1831.—*Jynx arborea* BREHM, Handb. Vög. Deutschl., p. 203.
- 1831.—*Jynx punctata* BREHM, Handb. Vög. Deutschl., p. 203.

1850.—*Yunx japonica* BONAPARTE, *Consp. Av.*, I, p. 112.—SWINHOE, *Ibis*, 1874, p. 162.—BLAK. & PRYER, *Ibis*, 1878, p. 229.—*Ibid.*, *Tr. As. Soc. Jap.*, VIII, 1880, p. 209.—*Ibid.*, *ibid.*, X, 1882, p. 136.

1855.—*Jynx major* BREHM, *Naumannia*, 1855, p. 274.

1866.—*Jynx torquilla* forma *septentrionalis* SUNDEVALL, *Consp. Picin.*, p. 108.

1866.—? *Jynx torquilla* forma *meridionalis* SUNDEVALL, *Consp. Picin.*, p. 108.

Bonaparte originally separated the Japanese Wryneck, as *Yunx japonica* (*Consp. Av.*, I, p. 112), from the western *J. torquilla*, on account of its alleged much smaller size and lighter colors. Swinhoe also insists that the eastern bird is smaller (*P. Z. S.*, 1863, p. 267; 1871, p. 393; *Ibis*, 1874, p. 162). Sundevall, on the other hand, says that the Japanese specimen in the Leyden Museum (the type of Bonaparte?) apparently differs in no respect from a German specimen, but he divides the species in two "forms," a northern and a southern one, those breeding in the north being apparently paler and less yellowish than those passing the summer in the south.

The material at my disposal is too scanty to allow of any sure conclusions, and I very much regret that our museum possesses no specimen of this common bird from Japan. I am especially unable to decide as to the size of the eastern bird. According to Captain Blakiston's MS. notes, all the five specimens which he collected in Yesso (males and females, in April and May) had the wing 80^{mm} long, a measurement considerably smaller than the average of European birds as given below, viz, 85^{mm}, and still more so if he when measuring flattened the wing by pressing it against the scale; but a specimen from Canton, on the other hand (cf. table below), agrees in size pretty well with the western examples.

As to the alleged deeper coloration of the southern specimens my series tends to corroborate Sundevall's view, but inasmuch as the data concerning localities and dates of my specimens are vague or entirely missing, the evidence is quite unsatisfactory. The four last birds of the series measured below are suffused with a much stronger wash of yellow, which makes them separable from the rest at the first glance, but the measurements are practically identical with those of the pale birds.

Judging from Bonaparte's original description and Sundevall's remarks, quoted above, the Japanese bird belongs to the paler form, which is the typical *J. torquilla*. The Wryneck is known to breed in Yesso, and is also recorded as inhabiting Hondo and Kiusiu, but whether breeding in the latter I think is rather doubtful. Of course, the existence of the pale specimens from Nagasaki may prove nothing beyond the fact that this form migrates through Nagasaki on its wayward or northward. But if the Wryneck breed in Southern Japan, if the dark form is separable as *J. torquilla meridionalis*, the occurrence of the latter in Kiusiu would not be surprising. This only as a question and a suggestion to local ornithologists, and I shall feel much obliged for any material which will throw light on the subject.

Measurements.

U. S. Nat. Mus. No.	Collector.	Sex and age.	Locality.	Date.						Remarks.
					Wing.	Tail-feathers	Exp. culmen.	Tarsus.	Ant. ext. toe without claw.	
77786	H. Gätke	♂ ad.	Heligoland, Germany	Apr., 1877	87	60	12	19	16	Pale.
9188	.....	♂ ad.	Nürnberg, Germany	..... 1852	87	55	13	20	.....	Do.
105,593	Tschusi	♂ ad.	Pirano, Istria	Apr. 5, 1882	80	65	11	19	17	Do.
105,592	do	♂ ad.	Austria	Apr. 5, 1882	88	63	12	20	18	Do.
56740	Schlüter	♀ ad.	Saxony, Germany	.....	82	62	12	.....	.....	Do.
96533	Whately	..... ad.	England	Apr., 1863	85	64	12	19	.....	Do.
96455	.....	♂ ad.	Canton, China	Nov.	83	68	13	.....	.....	Dark.
37763	Tristram	♂ ad.	Mt. Carmel, Palestine	Apr. 22, 1864	85	62	11	21	.....	Do.
18710	.....	♂ ad.	Europe	.....	84	61	.....	20	18	Do.
18711	.....	♀ ad.	do	.....	86	64	13	20	.....	Do.
Average measurements of nine Western specimens					85	63	12	20	17	

SUBFAMILY PICINÆ, WOODPECKERS.

SYNOPSIS OF THE GENERA OCCURRING IN JAPAN.

- a¹. Gonys much shorter than half the commissure; lateral ridge of bill very close to culmen, rather obsolete anteriorly; color, green, with or without red.
Picus, p. 104.
- a². Gonys not shorter than half the commissure; lateral ridge of bill more distant from the culmen, anteriorly reaching nearly or quite to the tomium; color, black, or black and white, with or without red.
- b¹. Gonys equals half the commissure; outer hind toe shorter than outer fore toe; neck slender, elongated; lateral ridge of bill at base nearer the culmen than the tomium. *Dryocopus*, p. 123.
- b². Gonys longer than half the commissure; outer hind toe longer than outer fore toe; neck not slender, and shorter; lateral ridge of bill at base nearer the tomium than the culmen.
- c¹. Gonys distinctly angular and ridged. *Dryobates*, p. 105.
- c². Gonys not angular nor ridged. *Yungipicus*, p. 120.

PICUS LINN.

- < 1758.—*Picus* LINN., S. N., 10 ed., I, p. 112.—*Id.*, S. N., 12 ed., I, p. 173 (1766), (type *P. viridis* L., cf. Mus. Hein., IV, p. 30, note).
- = 1828.—*Colaptes* BREHM, Isis, 1828, p. 1274 (same type), (nec. Sw. 1827).
- < 1831.—*Gecinus* BOIE, Isis, 1831, p. 542 (same type).
- < 1837.—*Brachylophus* SWAINSON, Classif. B., II, p. 308.
- < 1849.—*Chloropicus* MALHERBE, Mém. Acad. Metz, 1849-1850, p. 348 (same type).
- < 1850.—*Chloropicus* MALHERBE, Nonv. Classif. Pic., 2 ed., Sept., 1850 (emend.).
- = 1862.—*Gecinetes* ALTUM, Bericht xiv Ornith. Vers., p. 36 (emend.).

SYNOPSIS OF THE JAPANESE SPECIES OF THE GENUS *PICUS*.

- a¹. Cervix and malar stripe red. *P. awokera*.
- a². No red on cervix nor on malar stripe. *P. jessoensis*.

The Japanese species may be distinguished from allied species of the adjacent regions as follows:

- a¹. Malar stripe red..... *P. awokera*, Japan.
 a². Malar stripe black.
 b¹. Occiput and hind neck grayish or greenish the former sometimes streaked with black.
 c¹. Occiput and sides of head tinged with green..... *P. jessoensis*, Japan.
 c². Occiput and sides of head gray, not tinged with green.....
P. perpallidus, N. China? Manchuria.
 b². Occiput and middle of hind neck black.
 e¹. Pileum solid black, not streaked with gray.... *P. tancoia*, Formosa, S. China.
 e². Pileum streaked with gray..... *P. guerini*, China.

(173). *Picus awokera* TEMM.

Japan Green Woodpecker.

Awo-gera.

1836.—*Picus awokera* TEMMINCK, Pl. Color. IV, livr. 99, pl. 585 (the plate erroneously inscribed "*Pic kizuki*."—*Gecinus a?* TEMM. & SCHLEG., Faun. Jap. Av. (p. 72, pl. xxxvi), (1849).—BLAKIST. & PRYER, Ibis, 1878, p. 229.—*Id.*, Tr. As. Soc. Jap., VIII, 1880, p. 208.—*Id.*, *ibid.*, X, 1882, p. 136.—BLAKIST., Chrysanth., Febr., 1883, p. —. — *Id.*, Amend. List B. Jap., p. 46 (1884).—JOUY, Pr. U. S. Nat. Mus., VI, 1883, p. 308.

1866.—*Picus awokera* SUNDEVALL, Consp. Picin., p. 60.

This species, peculiar to Japan south of Yesso, is rather strongly marked and can be confounded with no other form. The male in its head-markings somewhat resembles *P. viridis* and its allies, but the sides of the head are gray and not suffused with green, as in *viridis*. The two Japanese Green Woodpeckers consequently differ in a reverse way from their European allies, the Japanese *P. jessoensis* being a green-headed *P. canus*, while *P. awokera* is a kind of gray-headed *P. viridis*.

The female, however, is very different from the female of *P. viridis*, as the upper part of the head is gray, marked with black in the middle, and the upper part of the cervix only is red; furthermore, the moustachial stripe is red, as in the male.

In the collection sent home by Mr. Jouy I find a young female (U. S. Nat. Mus. No. 91429, Jouy, No. 703, Tate Yama, Hondo, October 19, 1882.) The differences from the adult female are only slight. The upper part of the head is gray, with narrow blackish margins to the feathers, but no medial blackish patch; the red on the cervix and the moustache is less brilliant and somewhat smaller in extent; the breast is grayer and slightly suffused with reddish, and the yellow tinge of the abdominal region less intensive; the black cross markings on the posterior half of the lower surface commence higher up on the breast.

No. 91575 (*Yokohama*, April 6, 1883, *Jouy*) is a male which differs considerably from the two other males in the collection. The whole back is gray, with a very faint wash of greenish gradually increasing towards the rump; the cross markings on the under surface run farther forward, and the breast shows a faint wash of reddish, like the young female described above. On the whole, I am inclined to regard this specimen as a bird of the foregoing year.

Measurements.

U. S. Nat. Mus. No.	Collector and No.	Sex and age.	Locality.	Date.	Wing.	Tail-feathers.	Exp. culmen.	Tarsus.	Ext. toe without claw.
91430	Jouy, 752.....	♂ ad....	Tate Yama.....	Nov. 2, 1882 ...	142	96	33	27	21
96008	Blakist., 2661 ..	♂ ad....	Yokobama.....	Dec.....	139	101	30	26	21
91575	Jouy, 1051	♂ ad....	.....do.....	Apr. 6, 1883....	142	98	32	27	22
91428	Jouy, 699.....	♂ ad....	Tate Yama.....	Oct. 17, 1882 ...	142	96	30	25	21
91429	Jouy, 703.....	♂ jun....	.....do.....	Oct. 19, 1882 ...	137	90	30	26	20

(172) *Picus canus jessoensis* subsp. nov.

Yesso Green Woodpecker.

Yama-gera.

1862.—*Gecinus canus* BLAKIST., Ibis, 1862, p. 325.—*Id.*, Chrysanth., 1882, p. 473.—*Id.*, *ibid.*, 1883, p. 28.—*Id.*, Amend. List B. Jap., p. 28 (1884).—WHITELY, Ibis, 1867, p. 195.—SWINHOE, Ibis, 1875, p. 451.—BLAKIST. & PRYER, Ibis, 1878, p. 229.—*Id.*, Tr. As. Soc. Jap., VIII, 1880, p. 208.—*Id.*, *ibid.*, X, 1882, p. 136.

DIAGN.—Similar to *Picus canus viridi-canus* (MEY. & WOLF), but the whole head strongly tinged with green, and the under surface lighter and clearer; black streaks (in the male) on pileum and occiput longer.

TYPE.—U. S. Nat. Mus. No. 91538. *

HAB.—Apparently confined to the island of Yesso, Japan.

The so-called Gray-headed Green Woodpeckers have hitherto been considered a very homogeneous species, and no attempt has apparently been made to distinguish its subspecies.

The material at my command, however, shows considerable difference between the specimens from distant localities. European specimens exhibit two different styles, which agree in having the head gray; but in the specimens from Norway, the true and typical *P. canus*, the gray of the head is considerably darker, and so is the gray ground color of the whole body, causing the green to appear duller and darker. The birds from Germany are considerably lighter throughout, and in the males the streaks on top of the head behind the red patch seem to be more developed. There is an admixture of brown which makes the green somewhat olivaceous and the yellow of the rump inclining to saffron. I shall designate them as *Picus canus viridi-canus*. The ground-color of the Japanese specimens is still lighter, and, consequently, their whole coloration is clearer, but the green and yellow *per se* are also brighter and purer, without admixture of brownish. The chief character of this form, however, is the strong suffusion of green on the head. So strong is this green tinge that it is a decided misnomer to call the Japanese form a "Gray-headed Green Woodpecker." Indeed, it is more "green-headed" than many a *P. viridis*, only that the green is of a different tint, not being as yellow as in the latter species. In the European ex-

amples there is a just perceptible shade of greenish on the top of head and middle of hind neck, but the sides are decidedly gray. Not so in the Japanese representative, in which the green color not only pervades the sides of head and neck, besides being very much stronger, but also faintly tinges the whitish throat and chin. Swinhoe remarks (l. c.) that the Japanese specimens he examined had small bills. Such a distinction seems not to hold, as is apparent from the table of measurements appended.

That the differences pointed out above are not due to individual variation seems clear from the great uniformity in the specimens from each locality. Unfortunately but few of them are dated, but as all of them are in perfect plumage (especially the tails) they can safely be assumed to be practically in corresponding plumage, and the differences cannot be due to season.

The Gray-headed Woodpeckers inhabiting the intermediate region may be expected to show additional variation of this species, as there is no lack of indications in the literature that some Siberian specimens are unusually gray, and Dresser speaks of an aberrantly colored specimen from Southern Russia in Lord Lilford's collection (B. of Eur., v, p. 96).*

I may further remark that the dull-colored specimens from Norway, alluded to above, are from the rainy west coast. It would, therefore, not invalidate the conclusions here set forth, if it should be found that specimens from eastern and southern Scandinavia agree better with the Central European race.

It would be very interesting to know, if the Gray-headed Woodpeckers in Spain, in the Balkan Peninsula and in Caucasus show any differences from those of Northern and Central Europe. The homes of *Picus sharpii*, *P. saundersi*, and *Dryobates lilfordi* may justly be expected to foster recognizable races of *P. canus*.

* A specimen from the mainland opposite northern Japan (received after the above had been submitted for publication) is very different from *P. jessoensis* from the latter country. It is pale-gray-headed, with gray forehead, and altogether the whole plumage is strongly pervaded with gray, without any brown admixture, resembling most closely the Norwegian true *P. canus*, but very much paler and with a decided white superciliary spot. The yellow on the rump is very restricted, being chiefly confined to the upper tail-coverts and of a clear lemon yellow. The type of this form, which I designate as *Picus canus perpallidus*, is a ♂, U. S. Nat. Mus. No. 108897. It was collected at Sidinij, Ussuri, November 25, 1884, by Mr. I. Kalinowski. The dimensions are as follows: wing, 144^{mm}; tail-feathers, 96^{mm}; expos. culmen, 35^{mm}.

Comparative measurements.

Sub-species.	U. S. Nat. Mus. No.	Collector and No.	Sex and age.	Locality.	Date.	Wing.	Tail-feathers.	Exp. culm n.	Tarsus.	Abt. ext. toe without claw.	Total length.	Remarks.
<i>jessoensis</i> ..	91538	Blak. 3125.	(♂) ad.	Sapporo, Japan	1882. Oct. 14	144	93	33	25	21	.....	Type.
	96606	Blak., 3099	(♂) ad.	.....do.....	Oct. 9	137	90	30	25	20	.....
	96007	Blak., 3124	ad.	.....do.....	Oct. 12	141	100	31	26	19	305	
	91539	Blak., 3126.	ad.	.....do.....	Oct. 16	145	97	31	25	.....	.....
<i>ciridi-canus</i>	18938	Dronet ..	♂ ad.	Germany .....	.....	142	96	32	.....	.....	.....
	56723	Schlüter ..	ad.	.....do.....	.....	143	92	33	.....	.....	.....
	56724	.....do.....	ad.	.....do.....	.....	145	92	30	.....	.....	.....
	9595	v. Müller..	ad.	Europe .....	.....	145	98	31	.....	.....	.....
<i>canus</i>	98024	.....	(♂) ad.	Bergen, Norway	.....	141	100	30	.....	.....	.....
	98025	.....	(♂) ad.	.....do.....	.....	146	88	34	.....	.....	.....
<i>perpallidus</i>	108897	Kalinowski	♂ ad.	Ussuri	1884. Nov. 25	144	96	35	.....	.....	.....	Type.

DRYOBATES BOIE.

- < 1816.—*Dendrocopos* KOCH, Bayr. Zool., 1, p. 72 (type *P. tridactylus* L.?).
(nec *Dendrocopos* VIEILL., Anal., p. 45 (1816).)
- < 1826.—*Dryobates* BOIE, Isis, 1826, p. 977 (type *P. pubescens* L.).
- = 1828.—*Picus* BREHM, Isis, 1828, p. 1274 (type *P. major* L.).
- > 1829.—*Dendrodromas* KAUP, Entw. Europ. Thierw., p. 136 (type *P. leuconotus* BECHST.).
- > 1845.—*Leuconotopicus* MALHERBE, Rev. Zool., 1845, p. 373.
- > 1854.—*Dyctiotopicus* BONAPARTE, Consp. Vol. Zyg. Estr. Aten. Ital., No. 8, 1854, p. 8.
- > 1854.—*Phrenopicus* BONAPARTE, Consp. Vol. Zyg. Estr. Aten. Ital., No. 8, 1854, p. 8.
- > 1854.—*Trichopicus* BONAPARTE, Consp. Vol. Zyg. Estr. Aten. Ital., No. 8, 1854, p. 8.
- > 1854.—*Hypopicus* BONAPARTE, Consp. Vol. Zyg. Estr. Aten. Ital., No. 8, 1854, p. 8.
- > 1854.—*Pipripicus* BONAPARTE, Consp. Vol. Zyg. Estr. Aten. Ital., No. 8, 1854, p. 8.
- > 1854.—*Leipicus* BONAPARTE, Consp. Vol. Zyg. Estr. Aten. Ital., No. 8, 1854, p. 8.
- > 1855.—*Piculus* BREHM, Naumannia, 1855, p. 274 (type *P. minor* L.), (nec J. GEOFFR., 1832).
- > 1863.—*Dendrocoptes* CABANIS & HEINE, Mus. Hein., IV, p. 41 (type *P. medius* L.).
- > 1863.—*Liopipo* CABANIS & HEINE, Mus. Hein., IV, p. 44.
- > 1863.—*Xylurgus* CABANIS & HEINE, Mus. Hein., IV, p. 50 (type *P. hyperythrus* VIG.).
- > 1863.—*Xylocopus* CABANIS & HEINE, Mus. Hein., IV, p. 51 (type *P. minor* L.).

SYNOPSIS OF THE FORMS KNOWN TO OCCUR IN JAPAN.

- a. Under tail-coverts and abdomen red.
- b¹. Entire back black (*Dryobates*).
- c¹. Under surface whitish; scapulars mostly white. *D. japonicus*.
- c². Under surface brownish; scapulars mostly black. ? *D. gouldii*.
- b². With white on lower back (*Dendrodromas*).
- c¹. Great wing-coverts with two rows of white spots; ear patch and lateral neck patch continuous above, being only partly separated by a black line.
- d¹. Under surface and lower back white. ? *D. leucotos*.
- d². Under surface and lower back white, strongly washed with buff; rump black.
D. subcitrus.
- c². Great wing-coverts with only one subapical white spot in the outer web; ear patch and lateral neck patch completely separated by a black streak.
D. namiyei.
- a². Under tail-coverts and abdomen without red (*Xylocopus*) *D. minor*.

(167) *Dryobates japonicus* (SEEB.).

Great Spotted Woodpecker.

Akagera.

- 1857.—*Picus major* CASSIN, Perry's Exped. Jap., II, p. 222 (*nee* LINN.).—BLAKIST., Ibis, 1862, p. 325.—WHITELY, Ibis, 1867, p. 195.—SHARPE & DRESSER, B. Eur., V, p. 19 (*part*) (1871).—SWINHOE, Ibis, 1875, p. 451.—BLAKIST. & PRYER, Tr. As. Soc. Jap., VIII, 1880, p. 207 (*part*).—*Id.*, *ibid.*, X, 1882, p. 132 (*part*).
- 1883.—*Picus japonicus* SEEBOHM, Ibis, 1883, p. 24.—*Id.*, Hist. Br. B. Eggs, II, p. 355, (1884).—*Dryobates japonicus* STEJNEGER, Orn. Expl. Kanatsch., pp. 231, 232 (*part*), (1885).
- 1882.—*Picus major japonicus* BLAKIST., Chrysanth., Oct., 1882, p. 473.—*Id.*, *ibid.*, Jan., 1883, p. 28.—*Id.*, *ibid.*, Feb., 1883, p.—(*part only*).—*Id.*, Amend. List B. Jap., p. 44, (1884).—JOUY, Pr. U. S. Nat. Mus., VII, Dec. 27, 1883, p. 307 (*part*).

I have before me fourteen specimens from Japan, which, compared with Mr. Seebohm's remarks in establishing *D. japonicus*, induce me to believe that there are two forms in the islands, more or less closely related to *D. major*.

Mr. Seebohm had eleven specimens, five from Hondo, or the middle island, the rest from the northern islands, including Sakhalin and the Kuriles. These he describes (Ibis, 1883, p. 24) as follows: "The color of the under parts agrees with *P. major-cissa* from Scandinavia; but the white on the secondaries is more developed, and the white on the innermost secondaries is as much developed as in *P. luciani*." Of *cissa* he says that it is "much whiter on the under parts than those from Britain and South Europe," but "in Scandinavia * * * intermediate forms occur." The inference is that his *japonicus* is lighter underneath than British and South European specimens. Of *luciani* he says that "the white spots on the innermost secondaries meet, forming several broad white bars across the feathers," and in his History of British Birds and Eggs, II, p. 355 (1884), he states that in *japonicus* "the white on the innermost secondaries is developed into broad transverse bars." He furthermore says that "it is probably only sub-specifically distinct from *P. major*," and compared with his statement of "*P. major* and its allies always having white scapulars, and *P. cabanisi* and its allies always having black scapulars," one is justified in concluding that *japonicus* belongs to the former of these two groups; in the latter he also includes *P. gouldi*.

The specimens before me are from the Middle Island as well as from Yesso, five being from the latter island; but only two specimens of the whole series are birds taken during the breeding season, one from each of the islands mentioned.

I shall treat of these two first.

The breeding bird from Yesso (Blak. Coll. No. 2340, U. S. Nat. Mus. No. 95996) is a ♀ shot at Sapporo May 8, 1877. In Blakiston's manuscript notes I find a remark to the effect that this specimen is similar to one from South Yesso, which, in 1882, he sent to Seebohm, and one of the specimens upon which Seebohm founded his *japonicus*. This

specimen matches exactly four specimens from France and Saxony in regard to the color underneath (which is quite light), and in the amount of white on the scapulars, but has the white spots on the inner secondaries longer, nearly forming cross-bands, and, like all eastern specimens at my command, has white tips to the longest primaries. This bird I therefore feel justified in regarding as typical *japonicus*. The next conclusion is that the typical *japonicus* breeds in Yesso.*

The other breeding bird is from Fuji, on the Middle Island, a ♂, collected by Jouy (Coll. No. 425, U. S. Nat. Mus. No. 88703), July 4, 1882. This bird is entirely different from the foregoing. All the white under parts are strongly suffused with brown, and so are the ear-coverts; the scapulars are black, only a few with white tips; the white spots on the inner secondaries are not continuous, consequently they have no bars, although they are somewhat larger than in European specimens of *major*; between the black lateral patches on the breast a few feathers are tipped with red; the outer rectrices are strongly barred with broad black bands. Having no Chinese specimens at hand I have to content myself with Mallerbe's figures (Mon. Pic. Atl. I, pl. xvii) and the assertion of Mr. Seebohm that the birds there figured, viz. *P. mandarinus*, *P. gouldii*, *P. cabanisi*, and *P. luciani*, all of which he refers to two extremes, *P. cabanisi* and *P. luciani*, are "apparently separated by a hard and fast line from" *P. major* and allies by having black scapulars. This being the case the Japanese specimen in question can only be referred to the Chinese group, and, indeed, I can at present discover no character by which it can be separated from *P. gouldii*, though actual comparison of specimens may reveal some diagnostic mark. The conclusions to be derived from the above is that there breeds in the Middle Island of Japan a Great Spotted Woodpecker which is different from Seebohm's *P. japonicus*, and which we call *Dryobates gouldii*, at least provisionally.

Several other facts can be adduced in support of the latter conclusion. In the U. S. National Museum is a specimen (No. 91327), a ♂, collected by Jouy at Chinsenji Lake, Middle Island, September 6, 1882. It is essentially like the one described above, even in possessing the red margins to some of the pectoral feathers, and the spots on the inner secondaries are still smaller. During the same summer Mr. Jouy collected six more specimens on the Middle Island, none of which (except a young male), however, came to the National Museum. In regard to these specimens I find the following remarks in Blakiston's manuscript notes: "Jouy's summer specimens all dark."† A third fact in this

* I may add here that a female, the first specimen collected in Japan, (cf. Cassin, Perry's Exped. Jap., 11, 222) Hakodadi, May, 1854, U. S. Nat. Mus. No. 15873, is now in a condition which makes it unsafe to base any conclusions upon it, but so far as I can tell from it and from Cassin's remarks, i. e., it is a typical *japonicus*, closely resembling the one above.

† Cf. also Blakiston's remark, Tr. As. Soc. Jap., X, 1882, p. 132: "While the light parts about the face, throat, and breast in Yezo examples are nearly white, southern specimens are deeply tinged with brown."

connection is that Gray, in his Hand-list, II, p. 181, gives *P. gouldii* as in the British Museum from "Japan."

It is evident from Seebohm's remarks that he has light specimens from the Middle Island; so have I, and I have also dark ones from Yesso, but all these are winter birds. There are also several specimens in the collection before me which seem to be intermediate, not only in regard to the coloring of the lower surface, but also as to the amount of white on the shoulders.

The conclusions which I draw from the above facts are, that Japan south of "Blakiston's line" has received its Great Spotted Woodpecker from China, while the inhabitant of Yesso originally immigrated from the adjacent parts of Siberia. The intermediate forms I regard as hybrids. The Great Spotted Woodpeckers are known to be great travelers in autumn and winter,* straggling around the country in all directions. To them the narrow streets of Tsugaru is no obstacle, hence we may find *japonicus* in winter in Hondo, and *gouldii* at the same season in Yesso. That under such circumstances hybridization takes place on a large scale between so closely allied species cannot cause surprise, notwithstanding the probability that most of the straggling specimens will retreat to their original homes towards the breeding season. It must also be remembered that our collections have been chiefly made in districts where the hybrids would most likely occur, viz, in the districts of the Middle Islands north of the line Owari-Tsuruga, and in the southern part of Yesso. The probability is, that in Southern Japan the dark species will be found more exclusively and more pure-bred. The hypothesis is strengthened by numerous similar, or even more distinct, cases of Manchurian and Siberian species entering Japan respectively from the south and the north.

It is plain that the "intergradation," in this case, does not prove the two forms to be geographical races of the same species in the sense in which it is commonly adopted; that is to say, the two forms have not differentiated in Japan. They came to Japan as two well-defined species "separated by a hard and fast line," and by different roads of immigration: they met there and intermingled to a certain degree. The case is absolutely parallel to what, in some instances, has taken place in the Scandinavian peninsula, where Siberian forms coming from the northeast and Central European forms from the south meet each other and obscure their distinctiveness by an extensive hybridization, a condition of affairs which should always be borne in mind when speaking of "intermediate links" from Scandinavia.

The two Japanese forms (*D. japonicus* and *gouldii*) differ from the European *D. major* in having exposed white spots in the inner webs

* Cf. *D. major* passing Heligoland "regularly, never in large quantities, but most numerous in autumn" (Seebohm, Brit. B. Eggs, II, 354, note), and *D. pirus* crossing over to the treeless Bering Island, a distance of at least 100 miles (Stejneger, Orn. Explor. Kantsch., p. 231.)

of the tertiaries, a character which is equally pronounced as well in the young in the first plumage as in the old birds. The Kamtschatkan species, *D. purus*, in that respect resembles the European bird, notwithstanding the fact that in all other parts the white is more extensive and purer than in any of the many allied forms. It is considerably larger, and can never be confounded with its southern neighbors.

Dryobates gouldii [MALH. ?] GRAY.

? Gould's Woodpecker.

Akagera.

1857.—? *Picus cabanisi* GOULD, B. of Asia, (pt. ix, pl. 10) (nec MALH., 1854.)

1861.—? *Picus gouldii* MALHERBE, Mon. Picid. I, p. 62, pl. xvii, figs. 6, 7.

1861.—? *Picus luciani* MALHERBE, Mon. Picid. I, p. 63, pl. xvii, figs. 4, 5.

1868.—*Picus major* BLAKIST. & PRYER, Ibis, 1868, p. 228 (part).—*Id.*, Tr. As. Soc. Jap., VIII, 1880, p. 207 (part).—*Id.*, *Ibid.*, x, 1882, p. 132 (part).—? Seebohm, Ibis, 1879, p. 29.

1870.—*Picus gouldii* GRAY, Handl. B. II, p. 181.

1883.—*Picus major japonicus* BLAKIST., Chrysanth., Febr., 1883, p. — (part).—*Id.*, Amend. List B. Jap., p. 13 (part).—JOUY, Pr. U. S. Nat. Mus., vi. Dec. 27, 1883, p. 307 (part).

1885.—*Dryobates japonicus* STEJNEGER, Orn. Expl. Kamstsch., pp. 231, 232 (part).

I have already given my reasons for including this bird in the Japanese fauna, and expressed the opinion that it breeds on Hondo to the exclusion of *D. japonicus*. It should be mentioned, however, that the distribution may be quite different. An inspection of the map compared with what we know about the climatology of the island might lead one to think that the fauna of the western shore may be more like that of Yesso than that of the eastern portion as far north at least as the border of the Tokaido circuit. It is a fact that nearly the entire western slope, and the whole northern portion of Hondo north of the thirty-eighth parallel is a *terra incognita* to ornithologists; a minute exploration of these parts, and careful comparison of the birds breeding there, may lead to very unexpected results.

A young female in the first plumage was collected by Jouy at Fuji Yama July 2, 1882. It clearly bears out all the essential characters of the species, and is especially interesting on account of it being considerably different from the young *D. major* in the corresponding plumage in other respects also. On the whole it is like the adult, though the colors are duller; the tertiaries have large exposed white spots in the inner webs; the malar black stripe is distinct and continuous all the way, and the postauricular black stripe separating the cheeks and the lateral neck patch is effecting a perfect connection between the malar stripe and the black on the nape, as in the adult, consequently differing from the young European *D. major*, and resembling in that respect the adult *Dryobates medius* of Europe: the posterior long scapulars are white in the apical half, which is crossed by a broad, nearly continuous black bar; the continuation of the malar stripe, broadening behind, dissolves

on the sides of the breast into numerous cordate blackish spots, the outlines of which become less definite on the sides and the flanks, producing numerous dusky but ill-defined bars in these parts; the whole lower surface is dull brownish-white, only the anal region, crissum, and under-tail coverts washed with a pale and dull carmine; top of head black, the feathers on the crown tipped with glossy but dark crimson. Wing, 127^{mm}; tail-feathers, 78^{mm}; exposed culmen, 21^{mm}; tarsus, 23^{mm}; ant. ext. toe without claw, 14^{mm}.

(169) *Dryobates subcirris* sp. nov.

Ō-akagera.

1862.—*Picus leucotus* BLAKIST., Ibis, 1862, p. 325.—*Id.*, Chrysanth., Jan. 1883, p. 28.—*Id.*, *ibid.*, Feb. 1883, p. —.—SWINHOE, Ibis, 1875, p. 451?—BLAKIST. & PRYER, Ibis, 1878, p. 229 (part).—*Id.*, Tr. As. Soc. Jap., VIII, 1880, p. 208.—*Id.*, *ibid.*, x, 1882, p. 133.—JOUY, Pr. U. S. Nat. Mus., VI, 1883, p. 307.

1867.—? *Picus uralensis* WHITELEY, Ibis, 1867, p. 195.

DIAGN.—Similar to *D. leucotos* (BECHST.), but considerably larger; the sides of the head and the whole under surface, except the chin, strongly tinged with brownish buff, axillars, middle wing coverts, and lower back lighter and the tinge more yellowish, while the rest of the markings on the wing and the chin are pure white; the white on the upper side is restricted to the lower back (tergum), the interscapulars and the rump proper being black, as are also the upper tail-coverts. ♂ Wing, 155^{mm}; tail-feathers, 95^{mm}; exp. culmen, 37^{mm}.

TYPE.—U. S. Nat. Mus. No. 96000.

HAB.—Northern parts of Hondo Island and (in winter only?) Yesso, Japan.

As far as the color of the under side is concerned this form bears a similar relation to the typical *D. leucotos* from Central Europe, as does *Sitta caxsia* to *S. europaea*. The three specimens before me, an adult male, an adult female, and a young bird of the latter sex, are absolutely identical in this respect. That we have not to do with an artificial stain is evident from the fact that the wash of buff also pervades the axillaries and under wing-coverts, upper middle wing-coverts and lower back. The amount of white on the wings is about the same as in Central European specimens, but on the upper side of the body it is considerably restricted, as the whole rump is black. In size the present species is very superior, and it seems even to be larger than the true *D. cirris* of Siberia.

This form is known from the portion of Hondo north of Yokohama, and it probably breeds in that part of the island, since Jouy, on August 21, 1882, collected a young female, which seems referable to this form, at Chiusenji Lake, in the Nikko Mountains (U. S. Nat. Mus. No. 91326, Jouy No. 649), with trace of the first plumage on top of head, hind neck, and chin. It has also been collected in Southern Yesso, but I suspect that this form only occurs there in autumn and winter, and that the breeding bird of that island is white on the under side, and probably more nearly related to *D. leucotos*.

Measurements.

U. S. Nat. Mus. No.	Collector and No.	Sex and age.	Locality.	Date.	Wing.		Tail-feathers.	Exp. culmen.	Tarsus.	Ext. ant. toe without claw.	Total length.	Remarks.
96000	Blak. 2768	♂ ad..	Sapporo, Yesso....	Nov. 11, 1881	155	95	37	28	18	270	Type.	
96001	Blak. 3127.	♀ ad..	do	Oct. 12, 1882	152	95	34	24	17	271		
91326	Jouy 649..	♀ jun.	Chuisenji, Hondo..	Aug. 31, 1882	142	83	30	25	17	.....	

? *Dryobates leucotos* (BECHST.).

1803.—*Picus leucotos* BECHSTEIN, Orn. Taschenb., p. 66.

1826.—?? *Picus cirris* PALLAS, Zoogr. R. As., I, p. 410.

1882.—*Picus leuconotus* BLAKIST., Chrysanth., 1882, p. 473.

During his voyage in the spring of 1882 Captain Blakiston collected two females of a White-backed Woodpecker at Sapporo on June 2 and 4, consequently breeding. They are Nos. 2904 and 2905 of his collection, and were afterwards given to the Hakodadi Museum, being Nos. 1250 and 429 of the latter, according to Blakiston's notes. Regarding No. 2904, I find in his manuscript a note saying that it is "like No. 3127 [the ♀ *D. subcirris* now in the U. S. Nat. Mus.] except that the white is not at all tinged with buff." This buff tinge being one of the characters by which to distinguish *D. subcirris* from *D. leucotos* and *D. cirris*, we are inclined to think that the breeding bird of Yesso may belong to the Siberian form. This conclusion is somewhat doubtful, however, as Blakiston makes* no mention of the specimen shot two days later, since if this be buff-colored like the rest, No. 2904 may be regarded as an exceptional light individual. As will be seen from the list of specimens collected by Blakiston during his residence in Japan, extracted from his manuscript, only two other specimens can be regarded strictly as breeding birds, viz: No. 1609 and 1610, the two which he sent to Swinhoe in 1875, and which* the latter determined as "*Picus leuconotus*, L. (*uralensis*)" (*Ibis*, 1875, p. 451).

The question has become still more involved in doubt by a statement of Messrs. Sharpe and Dresser (*B. of Eur.*, v, p. 40) in regard to "a pair of Japanese birds collected by Mr. Whitely." They assert that these birds do not show the differences distinctive of the Siberian birds when compared with Swedish examples, and hence they conclude that *D. cirris* is not a distinguishable bird! A curious conclusion indeed, that because the Japanese and the Swedish examples—both coast forms—do not show the characters attributed to the continental Siberian form, the latter is not distinguishable at all!! That these gentlemen found no difference between Japanese and Swedish examples of *D. leucotos* does not prove that such are not to be found, for they also assert (*tom. cit.*, p.

* Swinhoe seems to have received the male only (*l. c.*)

21) in regard to *D. major*, that "we could not see any difference in specimens collected in the latter island (Japan) by Mr. Whitely, when compared with European birds," differences duly appreciated by Mr. Seeböhm, who for himself refutes the idea of being a "splitter." As Dresser and Blakiston, however, say nothing about the color of the rump, it is still doubtful whether the white-breasted Japanese birds should be referred to true *D. cirris* with white rump, or be regarded as light-colored specimens of *D. subcirris* with black rump.

Since the above was written and submitted for publication, I have received a female White-backed Woodpecker from the mainland opposite Northern Japan. U. S. National Museum No. 108896; (Sidinj, Ussuri, December 19, 1884.) Without going into detail I may state that I can find no character which would warrant its separation from typical *D. leucotos*. Whether the males will agree in the same manner, and whether Yesso birds will agree with the mainland bird are questions which are still open. But, certainly, even if the Ussuri bird be inseparable from the European species, there is no good reason to conclude that the Siberian form also is identical. At present, therefore, I regard it safest to retain for the white-breasted Japanese form Bechstein's name, *D. leucotos*, with a query.

WHITE-BACKED WOODPECKERS COLLECTED BY CAPTAIN BLAKISTON
IN JAPAN.

I extract the following list of the specimens of White-backed Woodpeckers (*subcirris* and ?*leucotos*) collected by Captain Blakiston, from his manuscript notes, together with the measurements as recorded by him. The specimens marked "Hak." were presented by him to the Hakodadi Museum; those marked "Sw." to Mr. R. Swinhoe; and those marked "U. S." to the National Museum of the United States. The last one was not preserved. No. 9 was collected by Mr. Fukushi.

The fresh colors of the specimen first mentioned are given as follows: "Eye, light brown; bill, leaden horn color; feet, bluish slate."

	Museum.	Mus. No.	Blakist. orig. No.	Sex and age.	Locality.	Date.	Total length.	Wing.
1	Hak.	748	754	♂ juv.	Hakodadi, Yesso.....	Oct. 21, 1861	282	148
2	Hak.	749	1608	♂ ad.	Sitoni, Yesso.....	Nov. 10, 1874	267	157
3	Sw.	.....	1609	.....	Mohitze, Yesso.....	May 17, 1874	273	153
4	Sw.	.....	1610	.....	.....do.....	May 17, 1874	264	157
5	Hak.	750	1611	.....	Porobets, Yesso.....	Aug. 25, 1874	254	153
6	Hak.	751	2338	.....	Sapporo, Yesso.....	Apr. 21, 1877	274	152
7	Hak.	752	2339	.....	.....do.....	Oct. 28, 1877	277	155
8	U. S.	.....	2768	ad.	.....do.....	Nov. 5, 1881	270	154
9	Hak.	1887	2887	.....	.....do.....	Nov. 27, 1881	287	155
10	Hak.	1250	2904	.....	.....do.....	June 2, 1882	.....	.....
11	Hak.	429	2905	.....	.....do.....	June 4, 1882	.....	.....
12	U. S.	.....	3127	ad.	.....do.....	Oct. 12, 1882	271	155
13	.....	.....	.....	.....	.....do.....	Nov. 10, 1881	278	150

Dryobates namiyei sp. nov.

PLATE II.

1882.—*Picus leuconotus* BLAKIST. & PRYER, Tr. As. Soc. Jap., x, 1882, p. 133 (part).

DIAGN.—Similar to *D. leucotos* (BECHST.), but much darker; lower back with a few white cross-bars only; white spots on wings fewer and smaller, and no white band formed by the middle coverts, only a few of the inner ones having a white spot; great wing coverts with only one subapical white spot in the outer web; ear-patch and lateral neck-patch completely separated by a black streak; ♂ wing, 146^{mm}; tail-feathers, 88^{mm}; exposed culmen, 34^{mm}.

TYPE.—Tokio Educational Museum, No. 178

HABITAT.—Southwestern portion of Hondo Island, Japan.

DESCRIPTION OF THE TYPE (*Tokio Educ. Mus. No. 178; Yamato, Hondo, Sept. 1876; coll. H. Pryer*) ♂ *ad.*—Hind neck, interscapilium, rump, upper tail-coverts, scapulars and lower back (tergum) black, the feathers of the latter with broad white subapical bars, forming about three cross-bands; a few of the hindmost scapulars have similar subapical white bars; chin and throat white, the ground color of the rest of the lower surface being similar, but tinged with buff, and from the lower breast backwards strongly washed with a dull carmine; a frontal band, and sides of head and neck whitish, forehead and ear-coverts strongly suffused with buff; from the mandibular apex a broad black band runs backwards between throat and ear-coverts, sending off an ascending branch behind the latter, which joins the black on the nape and completely separates the whitish lateral neck patch from the cheeks, and descending to the sides of the breast, where widening into a large solid black patch; across the breast the patch is nearly connected with that of the other side by a number of heavy black spots, and backwards they dissolve into large black flames covering the sides and flanks; middle of abdomen and crissum unspotted, but the lower tail-coverts have a faint brownish streak in the middle; a few feathers between the two pectoral patches are slightly tinged with dull carmine; wings above black, the remiges with rather small white spots in both webs, which do not meet across the shaft, except on the tertiaries; primary coverts uniform black, except a few of the external ones which are irregularly whitish at the extreme base and have a rounded white spot in the inner web; the great coverts have only a rounded white spot in the outer web near the tip; only a few of the innermost coverts of the middle row have a subapical white spot in the inner web or across both webs, thus forming a small and rather inconspicuous white spot; the larger under wing-coverts white with a subapical broad blackish band; the smaller nuder wing-coverts blackish, the outer ones uniformly so, the inner ones more or less marked with white obliquely over both webs; axillaries with large blackish marks; two central pairs of tail-feathers uniform black; the next pair also black, but with two brownish white spots in the outer web near the tip; in the following pair the tip is whitish, and so are a broad cross-bar over both webs, and, higher up, the outer web for a considerable distance, with an adjoining small spot in the inner web; the outer pair (except the rudimentary one) is similar, but with one whitish cross-bar more; rudimentary pair black with two white spots in the outer web, the lower one occupying the tip; crown of head slate grey, each feather broadly tipped with dark crimson, behind which is a distinct black cross-bar; a narrow black edge separates the crown from the whitish of the sides of the head.

Dimensions: Wing, 146^{mm}; tail-feathers, 88^{mm}; exposed culmen, 34^{mm}; ext. ant. toe, without claw, 18^{mm}.

Wing formula: 2<7; 3<6; 4<5, >6; 5 longest.

In their "Birds of Japan" (Tr. As. Soc. Jap., x, 1882, p. 133) Messrs. Blakiston and Pryer comment on the above specimen as follows:

"There is a specimen in the Educational Museum, at Tokio, collected

in Yamato, southwest of Osaka, of the same size as female *leuconotus*, measuring in the wing 152^{mm}.* It has red head, and general resemblance to the male *leuconotus*, but has much more black on the breast, and the white in the middle of the back is almost wanting. It may possibly be a localized race if not distinct species."

In Mr. Blakiston's manuscript notes there is the following remark in regard to the same: "Not nearly so much white; no white on hind neck; certainly sufficiently distinct for another species."

An inspection of the specimen, which Mr. S. Tegima, the director of the Educational Museum, Tokio, had the kindness to loan me, shows that Captain Blakiston was right; and, so far as can be judged from descriptions, our present bird seems to be nearer related to *Dryobates insularis* Gould, from Formosa, than to typical *D. leucotos* or its representative in the northern part of Hondo, *D. subcirris*.

D. namiyei is an interesting analogue of *Dryobates lilfordi* from South-eastern Europe, but is much more different from the typical form than is the latter, which has been generally accepted as a good species, differing from *D. leucotos* chiefly in having the white of the back and rump transversely barred with black (in Dresser's figure, B. of Eur., v., pl. 280, we count about eight black cross-bars, against about two in our bird); otherwise the white does not seem to be materially restricted. Like the Japanese form of *leucotos*, our bird has the whole rump perfectly black, and only the longest feathers of the lower back are barred with white. But also in all other parts of the body the white is restricted and supplanted by black, as already pointed out in the diagnosis and the "key." We shall only add, that the number of white spots in the inner web of the primaries has likewise decreased by about one in each feather.

Having no specimen of *Dryobates insularis* from Formosa, we will have to content ourselves with the descriptions, which, however, are somewhat contradictory *inter se*; † but it seems as if *D. insularis*, in spite of

* Evidently by flattening the wing. The dimensions given by myself were taken by means of dividers.—L. S.

† The following is the synonymy and the most important original descriptions of this species:

***Dryobates insularis* (GOULD).**

1862.—*Picus insularis* GOULD, P. Z. S., 1862, p. 283.—*Id.*, B. Asia, pt. xvi, pl. — (1864).—SWINHOE, Ibis, 1863, p. 390.—SUNDEVALL, Consp. Picin., p. 24 (1866).—*Dendrodromas* i. CAB. & HEINE, Mus. Hein., IV, pt. ii, p. 38 (1863).

HABITAT: Formosa.

The original description of *D. insularis* by Gould is as follows (P. Z. S., 1862, p. 283):

"Male: Forehead crossed by a narrow band of buff; crown of the head, scarlet; lores, cheeks, sides of the neck and throat white; a black line commencing at the base of the lower mandible passes down between the ear-coverts and the throat on to the sides of the chest, where it forms a broad patch; flanks buffy white, strongly striated with black; lower part of the abdomen and under tail-coverts rosy scarlet; mantle, shoulders, upper tail-coverts, and four middle tail-feathers black; center of the back

the restriction of the white color on other parts, has more white on the back than its Japanese relative, cf. Mr. Gould's expression: "Center of the back white, crossed with irregular rays of black, as in *Picus leuconotus*." The red on the lower parts seems also to be more restricted and paler in the Formosa bird.

As to the curious distribution of these bird on the Japanese islands, two distinct forms of the same superspecies inhabiting the same island, I may remark that not only is there a marked difference between the ornithology of Yesso and that part of the empire lying south of the Tsugaru Strait, or Blakiston's line, as it is deservedly called in zoogeographical parlance, the former belonging to Siberia, the latter to the Manchurian region; but the ornithology of Nagasaki shows a considerable difference from that of those parts of the central portion of Hondo, or the Middle Island, with the fauna of which we are acquainted.

The ornithology of the southwestern parts of Hondo, especially the circuits of Gokinai, Sanindo, and Sanyodo, and of the Island of Shikoku, is very little known, and it is hardly possible yet to say with certainty whether it agrees most closely with that of Kiusiu, or with that of the central part of Hondo. The present species, the type of which was taken in Yamato, seems to indicate the southern character of the ornithology of the country south and west of a line between the bays of Owari and Tsu-ruga, which has been ascertained to be the "line of demarkation" in respect to coleoptera (cf. Blak. & Pryer, Tr. As. Soc. Jap., x, 1882, p. 145), and it would not be surprising at all if this line also limits the distribution of certain local specializations of birds or immigrants from the south. It may be, however, that the region thus set off will have to

white, crossed with irregular rays of black, as in *Picus leuconotus*; wings black, spotted with white in both webs of the feathers, as in that species; outer tail-feathers alternately barred with black and white; bill bluish horn-color; tarsi and feet lead-color.

"Total length, 9 $\frac{1}{2}$ inches; bill, 1 $\frac{1}{2}$; wing, 5 $\frac{3}{8}$; tail, 3 $\frac{1}{2}$; tarsi, $\frac{5}{8}$.

"Female like the male in every respect except in having a black instead of a red crown."

Messrs. Cabanis and Heine describe a young male (Mus. Hein., IV, ii. p. 38) as having the whole crown varied of black and red; the postauricular black stripe separating the ear-patch and the lateral neck-patch; the feathers of the lower back broadly tipped with white; the feathers of the abdomen and crissum only faintly tinged with red ("plumis * * * ventris pallide et subobsolete subrosaceo tinctis, crisso anguste pallide rosaceo, miniato, carmineo"); the six middle rectrices uniform black, etc.

In view of these descriptions, which are based upon specimens, and which plainly indicate a whitish spot on the side of the neck, Sundevall's assertion (Consp. Picin., p. 24), that the jugular streak is indistinct and confluent with the black of the nape, the sides of the neck thus being totally black ("linea ordinaria nigra ad latera juguli non distincta, sed cum nigredine cervicis confluens, unde latera colli tota nigra") seems inexplicable.

The measurements given by Cabanis and Heine (and from them Sundevall?) are considerably smaller than those of Gould, being, total length, 8 $\frac{1}{2}$ inches; culmen, 1; wing, 4 $\frac{1}{2}$; tail, 3; tarsi $\frac{5}{8}$ (Sundevall: wing, 125^{mm}).

be restricted to the country lying south of the mountain range separating the circuits of Sanindo and Sanyodo.

I take great pleasure in dedicating this interesting form to Mr. Namiye, the zoologist of the Tokio Educational Museum.

It will be seen that we have been forced to conjecture that there exists in Japan three forms of the Great White-backed Woodpecker. That in this "Prodromus" we have distinguished them by binominals does not mean, however, that we regard them as separated by "hard and fast" lines. We have not, by far, enough material to decide this point, and the status of these forms as here represented is chiefly conjectural and provisional. So far as the material goes, it indicates a dark southern form (*D. namiyei*), a lighter, larger, underneath buff-colored form in the northern half of the Middle Island (*D. subcirris*), and a still whiter form (? *D. leucotos* or *cirris*) breeding in Yesso.

Subgenus XYLOCOPUS CAB. & HEINE.

(168) *Dryobates minor* (LINN.).

Lesser Spotted Woodpecker.

1758.—*Picus minor* LINN., S. N., 10 ed., I, p. 114.—SEEBOHM, Ibis, 1879, p. 29.—*Id.*, *ibid.*, 1884, p. 36.—BLAKIST. & PRYER, Tr. As. Soc. Jap., VIII, 1880, p. 207.—BLAKIST., Amend. List B. Jap., pp. 28, 44 (1884).

1866.—*Picus minor* var. *borealis* SUNDEVALL, Consp. Picin., p. 26.

1882.—*Picus minor-pipra* BLAKIST., Chrysanth., 1882, p. 473.—*Id.*, *ibid.*, 1883, p. 28.

1882.—*Picus pipra* BLAKIST. & PRYER, Tr. As. Soc. Jap., X, 1882, p. 133.

The Japanese form of the Lesser Spotted Woodpecker is apparently identical with the typical *D. minor* as the latter averages between Middle Scandinavia and Germany, and shows no particular approach to the Siberian *D. pipra* proper, as has sometimes been alleged. The sides are usually strongly streaked, the under tail-coverts always spotted, and the outer tail-feathers provided with two or three cross-bars.

Measurements.

U. S. Nat. Mus. No.	Collector and No.	Sex and age.	Locality.	Date.	Wing.	Tail-f.	Exp. Culmen.	Tarsus.	Ant. ext. toe, without claw.	Total length.
95999	Blak., 3013	♂ ad.	Sapporo, Yesso	Oct. 1, 1882	93	58	13	14	9	"152"
95997	Blak., 2343	♂ ad.	do	Apr. 28, 1877	90	57	14	15	9	"150"
95998	Blak., 2345	♀ ad.	do	May. 10, 1877	93	60	13	14	9	"150"

This species seems to occur only in Yesso, where it is a breeding resident. Blakiston only collected specimens near Sapporo, altogether five, three of which are enumerated above. His No. 2344 was a ♂ shot April 29, Hakodadi Museum No. 754, total length, "155mm," and his No. 2346 is the specimen referred to by Mr. Seebohm in the Ibis for 1879, p. 29. This was also a ♂ collected on May 11, 1877, its total length being "152mm."

The Kamtschatkan *D. immaculatus*,* characterized by its larger size and its excessive whiteness, the whole under surface being pure and unspotted white, and the outer tail-feathers likewise white and nearly unspotted, has not been observed in Japan, unless it be a specimen which, according to Mr. Blakiston's manuscript notes, was collected by Mr. Fukushi at Sapporo in December. It is said to be a ♂ measuring 160^{mm} in total length, with a wing measuring 97^{mm}, consequently in size agreeing pretty well with the type of *D. immaculatus*.

YUNGIPICUS BONAP.

- 1845.—*Tripsurus* EYTON, Ann. Mag. Nat. Hist., XVI (p. 229) (nec Sw., 1827).
 1854.—*Yungipicus* BONAP., Consp. Vol. Zygod. Estr. Aten. Ital. No. 8, 1854, p. 8 (type *P. hardwickii*).
 1863.—*Bæopipo* CABANIS & HEINE, Mus. Hein., IV, ii, p. 54 (= *Yungipicus*).
 1873.—*Yungiceps* MEYER, Journ. f. Orn., 1873, p. 405 (errore).
 1874.—*Iyngipicus* SALVADORI, Ucc. Borneo (p. 41), (emend.).

Yungipicus seems to me to deserve generic recognition. It differs materially from *Dryobates*, especially in the form of the bill and feet. The former is much less angular, narrower, and barely straight; the gonys is decidedly rounded, and not keeled; and the tarsi and toes are proportionally longer and slenderer.

(170) *Yungipicus kizuki* (TEMME).

- 1836.—*Picus kizuki* TEMMINCK, Pl. Color., IV, livr. 99 (text only).—*Iyngipicus k.* HARGITT, Ibis, 1882, p. 36 (part).—*Id.*, *ibid.*, 1884, p. 100.
 1836.—*Picus kizuki* TEMMINCK, Tabl. Méth., p. 64.—TEMME & SCHLEG., Fauna Jap. Aves, (p. 74, tab. xxxvii) (1849).—MALHERBE, Mon. Pic., I, p. 154, pl. xxxvi, figs. 1, 2.—BLAK. & PRYER, Ibis, 1878, p. 229 (part).—*Id.*, Tr. As. Soc. Jap., VIII, 1880, p. 208 (part).—*Id.*, *ibid.*, X, 1882, p. 134 (part).—SEEBOHM, Ibis, 1879, p. 29.—BLAKISTON, Chrysanth., Jan. 1883, p. 23 (part).—*Id.*, *ibid.*, Feb. 1883, p. —.—*Id.*, Amend. List B. Jap., p. 45, (1884).—JOUY, Proc. U. S. Nat. Mus., VI, 1883, 308.—*Iyngipicus k.* SEEBOHM, Ibis, 1884, p. 169.
 1845.—*Picus kizuki* GRAY, Gen. B., I, p. 435.

Mr. Hargitt has recently divided the Pygmy Woodpecker of Japan into a southern form, the typical *Y. kizuki*, and a northern one, distinguished by being generally paler and having the white markings broader and larger; the latter is his *Y. seebohmi*.

The habitat of these two forms is presumed to be Kiusiu for *Y. kizuki*, and Hondo-Yesso for *Y. seebohmi* (cf. Blakiston, A. L. B. J., pp. 45, 46), and Mr. Blakiston expresses some surprise at finding the bird from the Main Island (Hondo) identical with the Yesso bird, and different from the Kiusiu form, a state of affairs which would be nearly unique among Japanese birds. A close examination of my material leads me to quite different conclusions. In order to find out the true habitat of a Woodpecker it is necessary to ascertain where it breeds, or, reversely,

**Dendrocopus immaculatus* STEJNEGER, Pr. Biol. Soc. Wash., II, Aug. 10, 1884, p. 98.—*Dryobates immaculatus* STEJNEGER, Orn. Explor. Kamtsch., p. 231 (1885).

if we want to determine which form is peculiar to a certain locality, we will have to find out which form breeds there. This is often difficult, because most specimens in museums are autumn or winter birds collected when these birds straggle over the country in all directions. Of all the birds of this genus, which Blakiston collected, only one (Blak. No. 2765, ♀, Sapporo, Yesso, June 23, 1879, Hakod. Mus. No. 755) is a breeding bird, while the others are obtained in September, October, and November. Of all the *Yungipici* collected by Messrs. Jouy and Smith, three only were breeding birds, one of which reached our museum (U. S. Nat. Mus. No. 88705, ♂, Fuji Yama, Hondo, June 28, 1882), all the rest being collected in October, November, and December. And as in these collections, so is the case probably in most others (Hargitt, Ibis, 1882, p. 37, does not give the date of the specimens examined by him).

Of Blakiston's collection I have before me three autumnal birds from Yesso; of Jouy's there are four autumnal and one breeding bird, all from the Middle Island (Hondo). Finally, my material comprises the specimen of Ringer's collection from Nagasaki (Kiusiu), which caused the separation of *Y. kizuki* and *seebohmi*, and which was taken to Leyden and compared with the type of Temminck's *Y. kizuki*.

This specimen is neither dated nor sexed; but I take it to be a female, as it has no trace of red at the end of the superciliary streak, and the condition of the plumage leads me to believe that it was collected rather late in winter. It is apparently safe to regard it as typical of the southern form.

The summer specimen from the Middle Island alluded to above may be pronounced nearly identical with the Nagasaki bird. Apart from the presence of the red spot in the former, the only difference consists in a barely appreciably stronger wash of yellow on the lower surface of the southern example; it may then be remarked that even this difference is probably more apparent than real, since the abrasion of the plumage of the northern bird easily accounts for it, a conclusion warranted by the fact that the autumnal birds from the north have the yellow wash quite pronounced. In the heavy streaking on the lower surface; in the darkness of the brown patches on the sides of the breast, and of the interscapular region; in the narrowness of the white markings on the lower back and wings; in all these important points the two birds agree so closely, that I have no hesitation in asserting, that the form breeding in the Middle Island, not far from Yokohama, is the true *Y. kizuki* of Temminck.

Now, placing the three Yesso birds alongside the typical Kiusiu bird a great difference is at once appreciable. Notwithstanding their having a fresher plumage, the brown on top of head, hind neck, and interscapulars is much paler, as if suffused with ashy; the white cross-bands on back and wings are purer and considerably broader; the outer tail-feathers, instead of being black with white cross-bars, are

white with black cross-bars, the streaks on the flanks and breast are fewer and more indistinct, and the brown patches on the sides of the breast are scarcely more than indicated. There can, I think, be no doubt but what these may be safely regarded as typical *Y. seebohmi*.

I will now call attention to the four autumnal specimens, from Tate Yama, on the Middle Island. Being collected at precisely the same season as the Yesso birds, they offer all desirable advantages for a fair comparison. It will be found at once that the two groups are readily distinguished by essentially the same characters which separate *Y. seebohmi* and *Y. kizuki*. The Tate Yama birds are browner on head and neck; the lateral breast-patches are large and well defined, the streaking is dense and dark, the white marks on back and wing are narrower. In other words, taking the seasonal difference into consideration, the Tate Yama specimens essentially conform with the Fuji Yama bird which we have referred to *Y. kizuki* proper. The only appreciable difference I can detect by a minute examination is that the white bands on the wings and tail in the four specimens is a trifle (perhaps 0.3^{mm}) broader than in the specimens alluded to.

To sum up, I find the Yesso bird, *Y. seebohmi* as here restricted, quite different and easily separable from its southern representative, and that the form which inhabits the Middle Island is inseparable from the Nagasaki bird. I will not deny the possibility that a larger series from the latter locality may show it to be slightly different from the bird of the Middle Island, northeast of the line Ōwari-Tsuruga, but it is plain to me that the birds south of "Blakiston's Line" are more different from the Yesso bird than are Yokohama and Nagasaki specimens from each other.

From the above it is evident that the Pygmy Woodpeckers of Japan form no exception to the general rule of geographical distribution and local differentiation in those islands. "Blakiston's Line" is also in this instance the dividing line which separates the representative forms, whether they immigrated from the south and from the north into the Japanese Empire as already distinct species, or they differentiated in the islands after having spread over the archipelago by one of these routes alone.

Measurements.

U. S. Nat. Mus. No.	Collector and No.	Sex and age.	Locality.	Date.	Wing.	Tail-feathers.	Exp. culmen.	Tarsus.	Exterior anterior toe, without claw.
96002	Ringer ..	♀ ad	Near Nagasaki, Kinsiu		82	46	12	15	10
88705	Jouy, 314	♂ ad	Fuji Yama, Hondo ..	June 28, 1882	82	45	14	16	10
91333	Jouy, 698	♂ ad	Tate Yama, Hondo	Oct. 17, 1882	80	47	13	15	10
91427	Jouy, 822½	♂ ad	.....do	Nov. 30, 1882	85	.....	13	15	10
91334	Jouy, 780	♀ ad	.....do	Nov. 25, 1882	87	53	14	15	10
91426	Jouy, 801	♀ ad	.....do	Nov. 20, 1882	90	52	14	15	10

(170½) *Yungipicus seebohmi* HARGITT.

Ko-gera.

- 1862.—*Picus kisuki* BLAKISTON, Ibis, 1862, p. 325 (nec TEMM.).—*Id.*, Chrysanth., Jan., 1883, p. 28 (part).—*Id.*, Tr. As. Soc. Jap., XI, 1883, p. 137.—SWINHOE, Ibis, 1875, p. 451.—BLAK. & PRYER, Ibis, 1878, p. 229 (part).—*Id.*, Tr. As. Soc. Jap., VIII, 1880, p. 208 (part).—*Id.*, *ibid.*, X, 1882, p. 134 (part).
 1884.—*Yungipicus seebohmi* HARGITT, Ibis, Jan., 1884, p. 100.—SEEBOHM, Ibis, 1884, p. 179.—*Picus s.* BLAKISTON, Amend. List B. Jap., p. 45 (1884).

The distinguishing characters of this form have already been discussed under the foregoing species. It breeds in Yesso, whence in winter it probably straggles across the Tsugaru Strait into Northern Hondo.

Measurements.

U. S. Nat. Mus. No.	Collector and No.	Sex and age	Locality.	Date.	Wing.	Tail-feathers.	Exp. culmen.	Tarsus.	Ext. ant. toe without claw.	Total length.
96004	Blak, 3213...	(♂) ad..	Sapporo, Yesso..	Oct. 26, 1882	85	50	13	15	10	142
96005	Blak, 3214...	(♂) ad..	do	Oct. 26, 1882	83	...	13	15	10	139
96003	Blak, 2766...	(♀) ad..	do	Nov. 9, 1881	88	52	13	16	11	155

DRYOCOPUS BOIE.

- 1826.—*Dryocopus* BOIE, Isis, 1826, p. 978 (type *P. martius* LINN.).
 1828.—*Dendrocopus* BREHM, Isis, 1828, p. 1274 (nec VIEILL., 1816) (same type).
 1829.—*Carbonarius* KAUP, Entw. Eur. Thierw., p. 131 (same type).
 1831.—*Dryotomus* SWAINSON, Faun. Bor. Amer., II, p. 301 (same type).
 1837.—*Hemilophus* SWAINSON, Classif. B., II, p. 309 (type *pulverulentus*), (nec SERV. 1835).
 1849.—*Dryopicus* MALHERBE, Mém. Ac. Metz, 1849-1850, p. 320.
 1850.—*Dryopicus* MALHERBE, Class. Nouv. Pic., Sept. 1850, p. —.
 1854.—*Mulleripicus* BONAPARTE, Consp. Vol. Zygodact. Estr. Aten. Ital., No. 8, 1854, p. 7 (type *pulverulentus* TEMM.).
 1854.—*Lichtensteinipicus* BONAPARTE, Consp. Vol. Zygodact. Estr. Aten. Ital., No. 8, 1854, p. 7 (type *modestus* VIG.).
 1854.—*Alophonerpes* REICHENBACH, Handb. Sp. Ornith., II, Oct. 1, p. 385 (type *pulverulentus*).
 1855.—*Picus* GRAY, Cat. Gen. Subgen. Br. Mus., p. 91 (type *martius* L.).
 1861.—*Alophus* MALHERBE, Monogr. Pic., I, p. 47 (type *pulverulentus*), (nec SCHÖNH., 1826).
 1861.—*Macropicus* MALHERBE, Monogr. Pic., I, p. liii (same type).
 1863.—*Thriponax* CABANIS & HEINE, Mus. Hein., IV, p. 105 (type *P. javensis* HORSF.).

SYNOPSIS OF THE JAPANESE SPECIES OF THE GENUS *DRYOCOPUS*.

- a¹. Abdomen and lower back black as the rest of the plumage (*Dryocopus*)... *D. martius*.
 a². Abdomen and lower back white (♀) (*Thriponax*) *D. richardsi*.

(171) *Dryocopus martius* (LINN.).

Great Black Woodpecker.

Kuma-gera.

- 1758.—*Picus martius* LINN., S. N. 10 ed., I, p. 112.—*Id.*, S. N. 12. ed., I, p. 173 (1766).—*Dryocopus m.* BONAP., Geogr. Comp. List, p. 39 (1838).—BLAKISTON, Ibis, 1862, p. 325.—*Id.*, Chrysanth., Jan., 1883, p. 38.—*Id.*, Amend. List B. Jap., p. 28 (1884).—SWINHOE, Ibis, 1875, p. 451.—BLAKIST. & PRYER, Ibis, 1878, p. 229.—*Id.*, Tr. As. Soc. Jap., VIII, 1880, pp. 177, 208.—*Id.*, *ibid.*, X, 1882, p. 135.
- 1758.—*Picus cornicinus* LINN., S. N. 10 ed., I, p. 113 (sub *P. pileatum*).
- 1831.—*Dendrocopus pinetorum* BREHM, Handb. Vög. Deutschl., p. 185.
- 1855.—*Dryocopus alpinus* BREHM, Naumannia, 1855, p. 274.
- 1855.—*Dryocopus niger* BREHM, Naumannia, 1855, p. 274.

Not having access to Japanese specimens of the present species, our Museum possessing none from Japan, I abstain from further remarks.

Subgenus THRIPONAX CAB. & HEINE.

(171½) *Dryocopus richardsi** TRIST.

Richards's Woodpecker.

- 1879.—*Dryocopus richardsi* TRISTRAM, P. Z. S., 1879, p. 336, pl. xxxi.—BLAKIST. Amend. List B. Jap., p. 46 (1884).—*Mulleripicus r.* WALLACE, Island Life, p. 363 (1881).—BLAKIST. & PRYER, Tr. As. Soc. Jap., X, 1882, p. 136.—*Thripnax r.* HARGITT, Ibis, 1885, p. 156.

Beyond the descriptions and remarks by Tristram and Hargitt (*ll. cc.*) on the type specimen, a female from Tshu Shima, which, to our knowledge, is still unique, nothing is known about the present species.

* To Vice-Admiral Sir George Henry Richards, H. Br. M. N.