

the 'Proceedings of the Zoological Society,' 1841, p. 86, under the name of *Dactylocalyx pumiceus*, in these words:—"Sponge fixed, siliceous; incurrent canals uniform in size; excurrent canals large, forming deep sinuosities in the outer surface, radiating from the root to the outer circumference." Comparing the sponge now described with Dr. Gray's, I find in mine no well-marked system of incurrent and excurrent canals with large orifices, as in the Barbadian sponge, which latter is of a much more open and porous texture, and besides exhibits in its present state not the slightest trace of a skin.

Dedicated to Dr. J. S. Bowerbank, F.R.S., who has devoted his attention for many years to the Spongiadæ, and who is now giving to the scientific world, through the medium of the 'Philosophical Transactions,' the results of his important investigations.

8. CATALOGUE OF THE BIRDS OF CHINA, WITH REMARKS PRINCIPALLY ON THEIR GEOGRAPHICAL DISTRIBUTION. BY ROBERT SWINHÖE, F.Z.S.

PSITTACIDÆ.

1. PALÆORNIS ROSA, Bodd.

P. bengalensis, Briss.

P. cyanocephalus, L.

P. flavicollaris, Frankl. ; Jerdon, Birds of India, i. p. 259.

Two pairs of this species were shot, out of a flock in autumn near Canton, by Dr. Dod, two of which were kindly given me by that gentleman for identification. This is the only well-authenticated instance of the occurrence of any of the Parrot-group in China. The Chinese call all Parrots "Ying-ko," and import various species from the Straits as cage-birds.

FALCONIDÆ.

2. AQUILA HELIACA, Savigny.

A. imperialis, Cuv.

A. mogilnik, Gr. ; Bp. Consp. Av. p. 13.

An immature male of this species was shot at the close of 1861, near Foochow, by Mr. A. Andrews. The specimen was identified by Mr. J. H. Gurney. I have lately received a letter from Mr. Andrews informing me that he had this last winter shot another Eagle, a female, probably of the same species as the first, at Foochow.

3. HALIAËTUS ALBICILLA, L.

Hab. Amoorland (v. Schrenck, Amurland, p. 223).

Captain Blakiston's expedition-party shot one on the 23rd of February at Chinkiang, on the Yangtze, the head and leg of which were brought home and identified by Mr. J. H. Gurney. I once saw a large Sea-Eagle in the month of December at Amoy, which I believe to be of this species; and I was assured of its occasional

occurrence during the same season at Hongkong by the late Dr. Harland, a most diligent and accurate observer, whose collections in the various branches of natural history at present enrich the Museum of Scarborough, his native place.

4. *HALIAËTUS PELAGICUS*, Pall.

Hab. Sea-coasts of the Amoorland, Mantchuria, and Japan. Not hitherto observed in China.

5. *PANDION HALIAËTUS*, L.

Hab. Amoorland (v. Schrenck) and Japan. Abundant on all the rivers and bays of Formosa and China. The Chinese and Formosan specimens are rather smaller than those from Europe.

6. *POLIORNIS POLIOGENYS*, Temm.

Buteo pyrrhogenys, Schleg. Faun. Jap.

Originally described from Japan; since procured at Tientsin by Mr. Fleming, R.A. (see P. Z. S. 1862, p. 315; and *The Ibis*, 1863, p. 88).

7. *BUTEO JAPONICUS*, Schleg. Faun. Jap. t. 6; Bp. Consp. Av. p. 18.

Closely allied to the European Buzzard, but never acquires the dark plumage of the adult of that bird. Its tarsi, moreover, as Bonaparte remarks in his 'Conspectus Avium,' are more feathered. Found in Amoy, Hongkong, and Canton, in the winter only.

8. *MILVUS MELANOTIS*, Schleg.

M. govinda, Sykes, of some of my lists of Chinese Birds in *The Ibis*.
M. niger, var. *melanotis*, von Schrenck, Amurland.

Found throughout China, from Canton to Talien Bay, in the Amoorland, in Japan, and in Formosa.

9. *FALCO SACER* (Schleg.), Bp. Consp. Av. p. 24.

Procured by myself at Peking (see *The Ibis*, 1863, p. 88).

10. *FALCO PEREGRINUS*, L.

Occurs from Canton to the Amoor. Found also in Japan and Formosa.

11. *FALCO SUBBUTEO*, L.

Found in Amoorland, according to v. Schrenck. I have seen specimens from Tientsin, Hankow (Central China), Foochow, and Amoy.

12. *FALCO VESPERTINUS*, L.

Found in Amoorland (v. Schrenck), in Talien Bay, and in the neighbourhood of Peking.

13. *FALCO ÆSALON*, L. Merlin.

I have seen specimens from Peking, Amoy, and Foochow.

14. *TINNUNCULUS JAPONICUS*, Schleg. Faun. Jap. t. 1, 1a; Bp. Consp. Av. p. 27. Japanese Kestrel.

Common in South China and Formosa; somewhat rare about Peking. The Kestrel mentioned by v. Schrenck as occurring somewhat scantily in Amoorland is probably the same. I have, however, one specimen from Amoy, in which the colours are lighter and clearer, and the back considerably less spotted, as in the *T. alaudarius* of Europe.

15. *ASTUR PALUMBARIUS*, L. Goshawk.

This bird is found in the neighbourhood of Peking. I have there seen it carried on the wrist by natives for the purposes of hawking. It is noted by von Schrenck as found in Amoorland.

16. *ACCIPITER NISUS*, L. Sparrow-Hawk.

Occurs from Canton to the Amoor; also in Japan.

17. *MICRONISUS SOLOËNSIS*, Horsf.

Falco cuculoides, Temm. Pl. Col. 110, 129; Bp. Consp. Av. p. 33.

I have seen specimens from Amoy, Foochow, and Tientsin. A good mark of distinction in this species, as pointed out by Mr. J. H. Gurney, is the clear unspotted cream-colour of the axillaries.

18. *MICRONISUS GULARIS*, Schleg.

I have seen skins from Amoy and Formosa. It inhabits also Japan, whence originally described and figured in the 'Fauna Japonica.'

19. *MICRONISUS STEVENSONI*.

Accipiter stevensoni, Gurney, Ibis, 1863, p. 447, pl. 11.

A resident species at Hongkong, Canton, and Macao. One specimen received from Tientsin.

20. *CIRCUS CYANEUS*, L.

From Canton to the Amoor.

21. *CIRCUS SWAINSONII*, A. Smith.

C. pallidus, Sykes.

A female specimen of this was procured by Captain Blakiston on the Yangtze, and identified by Mr. Gurney.

22. *CIRCUS MELANOLEUCUS*, Pennant.

Procured by Mr. Fleming, R.A., at Tientsin. Probably extends throughout the interior of China, as it is common in the plains of Hindostan.

23. *CIRCUS SPILONOTUS*, Kaup; Swinhoe, Ibis, 1863, p. 213, pl. 5.

Found in South China; especially abundant in the neighbourhood of Amoy. Has also been procured from Singapore and the Philippines.

STRIGIDÆ.

24. *ATHENE CUCULOIDES*, Vigors ; Bp. Consp. Av. p. 40.
From Canton to Ningpo.
25. *NINOX JAPONICUS*.
Strix hirsuta japonica, Schleg. Faun. Jap. t. 9 ; Bp. Consp. Av. p. 41.
From Amoy to Tientsin ; found also in Formosa. Originally described from Japan.
26. *KETUPA CEYLONENSIS*, Gmel. Crab-Owl.
Procured only from the hills of Hongkong. Abundant in Ceylon and in many parts of India.
27. *SCOPS SEMITORQUES*, Schleg. Faun. Jap.
S. lempiji, var. *lettia*, Hodgs., Blyth's Catalogue.
South China ; as yet only traced from Canton to Foochow, thence across to Formosa. Also in Japan, and throughout the hilly regions of India. Is replaced in the Malayan peninsula by the allied *S. lempiji*, Horsf.
28. *SCOPS JAPONICUS*, Schleg. ; Bp. Consp. Av. p. 48.
S. bakkamaena, Penn.
From Canton to Peking ; also in Japan. Occurs in South China in winter, and is found in Tientsin during summer. I procured it at Amoy twice, and have seen it on several occasions in winter only, and Captain Blakiston procured one at Canton on the 15th of November ; hence I infer it to be a bird of passage, spending the summer in North China and Japan, and wintering in South China. Is probably the same as the bird of Hindostan, *S. bakkamaena*, Penn. ; at least it has been so identified by Mr. E. Blyth.
29. *BUBO MAXIMUS*, Sibbold. Great Horned Owl.
B. atheniensis (Aldrov.), Bp. Consp. Av. p. 48.
Strix bubo, L. ; von Schrenck, Amurland, p. 249.
From Canton to Talien Bay, and thence on to the Amoor. In many parts of China it is by no means rare throughout the year.
30. *OTUS VULGARIS*, Flem. Long-eared Owl.
Otus vulgaris, Bp. Consp. Av. p. 50.
Strix (Ægolius) otus, L. ; v. Schrenck, Amurland, p. 246.
Procured by Mr. Fleming at Tientsin. Found in Amoorland (v. Schrenck), and more or less common in many parts of China proper.
31. *OTUS BRACHYOTUS* (Gmel.). Short-eared Owl.
Brachyotus palustris, Bp. Consp. Av. p. 51.
Strix (Ægolius) brachyotus, v. Schrenck, Amurland, p. 246.
From Canton to the Amoor.

32. SYRNIUM SINENSE, Lath. ; Bp. Consp. Av. p. 52.

Said to have been received from Canton. I have never come across the bird.

CAPRIMULGIDÆ.

33. CAPRIMULGUS JOTAKA, Schleg.

C. dytiscivorus, Swinhoe, Ibis, 1860, p. 130.

C. swinhoii, Blyth.

Tarsi feathered ; allied to *C. europæus*, L.

Summers in North China and Japan ; common in South China, chiefly in spring and autumn ; when in its migration it spends two months in Amoy and Hongkong. Old birds very black, with much less buff markings. White spots on the primary quills of male very variable in size. White band on tail also variable in breadth, and at different distances from tip in different specimens. In the freshly moulted males both are strongly tinged with buff.

The female has no band across the tail, and the spots on the under-neck and wings are rust-coloured instead of white. Her whole plumage is much more rufescent.

Both sexes in the very young plumage have no spots on the wings or tail, the throat of the male alone showing whitish patches.

34. CAPRIMULGUS STICTOMUS, Swinhoe, Ibis, 1863, p. 250.

Tarsi bare ; allied to *C. monticola* of India and *C. affinis* of Java. Outer tail-feathers in male white. Spends the summer in the south of China ; found near Amoy in September and October. Amoy specimens very rufescent and clearly marked. Formosan variety smaller and very pale.

CYPSELIDÆ.

35. ACANTHYLIS CAUDACUTA, Lath.

Hirundo fusca, Shaw.

Chætura australis, Steph.

C. macroptera, Sw.

C. nudipes, Hodgs.

Cypselus leuconotus, Deless.

Hirundo ciris, Pall. Zoogr. Ross. Asiat. p. 541.

Most naturalists are, I believe, now agreed that the Himalayan and Australian birds are one and the same species, and identical with the individual that was shot in England. In the south of China I never saw but one pair ; the male I secured. This specimen agrees entirely with Australian skins. Von Schrenck observed this Swift in Amoorland ; and it is doubtless the bird described by Pallas as *Hirundo ciris*.

36. CYPSELUS VITTATUS, Jard. & Selb. Ill. Orn. n. s. t. 39.

Closely allied to *C. pacificus*, Lath. (*C. australis*, Gould). Sexes of similar plumage ; wings and tail of variable length in both, in the former seldom more than $\frac{1}{2}$ inch difference between two specimens.

Found as a summer visitant in China, from Amoy to Talien Bay; also in Formosa. Not noticed in von Schrenck's 'Amurland.'

37. *CYPSELUS SUBFURCATUS*, Blyth, J. A. S. xviii.

C. affinis, var., Strickland, P. Z. S. 1846, p. 99.

Larger than *C. affinis*, J. Gr., and of a much blacker and glossier colour, with much more white on the throat; tail longer and sub-furcate. Approaches *C. vittatus* more nearly than *C. affinis* does. Sexes alike. Wings vary somewhat in length in individuals. Resident on the Chinese coast not much higher than Amoy, whence it ranges southwards to Malacca. Found also in southern Formosa.

UPUPIDÆ.

38. *UPUPA EPOPS*, L.

U. vulgaris, Pall.

A resident bird throughout China, from Canton to Talien Bay. Found also in Amoorland, according to von Schrenck. Chinese specimens identical with the European bird. Some individuals are strongly imbued with a rufous tinge. The young are at once distinguishable by their much shorter bills. Builds in holes of walls and exposed Chinese coffins. The younglings call for food with a hissing note. The male during the breeding-season utters its song of love, "Hoo-hoo-hoo." To produce these notes the bird draws the air into its trachea, which puffs out on either side of the neck, and the end of the bill is tapped perpendicularly against a stone or the trunk of a tree, when the breath being forced down the tubular bill produces the correct sound. I have watched a male crying on a rope, where, instead of striking its bill, it merely jerked its head. The song then given forth was quite different, sounding more like "hoh-hoh-hoh." Feeds on worms, for which it stamps the ground with its feet, clutching them by the head with its bill. It bruises the worm by beating it against the ground, and then, throwing up its head, jerks it down to its small mouth, and finally swallows it.

CUCULIDÆ.

39. *EUDYNAMYS ORIENTALIS*.

Cuculus orientalis, niger, mindanensis, et scolopaceus, L.

C. maculatus, Gmel.

A summer visitant to the extreme south of China; common about Canton. I have a specimen from Swatow; but I do not think it ranges much higher. I have never found it at Amoy. For an account of the bird as observed at Canton, see *The Ibis*, 1861, p. 46.

40. *CUCULUS CANORUS*, L.

I have a series of each of two forms from China, both of which Mr. Blyth refers to *C. canorus*. I have a skin from Tientsin, one from Peking, and a third from Foochow—all undoubtedly true *C. canorus*, with white underparts banded with narrow bars, and the axillaries

also similarly banded. On the Foochow hills I have heard the true Cuckoo-note in June. Of the second series, I have one from Tientsin, and four from Amoy. These are of similar form, with fulvescent under parts banded with much broader bars more widely set, with the axillaries nearly barless. One has a somewhat large bill, and two are almost entirely blackish brown in the parts which should be grey. I have never heard the notes of the race that touches in greatest abundance at Amoy in its migrations, and therefore will not attempt at present to separate it. It may be found, on further acquaintance, worthy of specific distinction. This variety is not noted in Jerdon. The true Cuckoo is very variable in tints, length of wing, and size of bill, and even in my small series leads away to the following allied forms (which, however, differ from it in note) in such a manner that I can hardly help thinking that the various races interbreed, the offspring probably studying the note of that parent to which its inherited form most assimilates, and to the society of which it is on that account attracted. The straggler which I procured in south-west Formosa belongs to the second variety.

41. *CUCULUS HIMALAYANUS*, Vigors (not of Gould's 'Century,' which = *C. poliocephalus*, Lath.).

C. saturatus, Hodgs.

I have an individual of this Cuckoo, shot at Amoy on its vernal northward migration. It has been identified by Mr. Blyth, and answers well to Jerdon's description (Birds of India, i. p. 323). It is of similar form to *C. canorus*, but is smaller and much more deeply and brightly coloured. I have never observed it alive; but some remarks on its habits and peculiar note are given in the work referred to.

42. *CUCULUS MICROPTERUS*, Gould.

Of this I have also one shot at Amoy, in the neighbourhood of which place it is frequently seen and heard in spring. It is a plain-dressed species, with very broad and widely set bars on the under parts; smaller than *C. canorus*, with rather a large bill (see Jerdon, Birds of India, i. p. 326, where an account of its note and habits are given).

43. *CUCULUS HYPERYTHRUS*, Gould.

I have only an immature bird, from Shanghai, the locality whence Mr. Gould procured his typical specimen. This is a much more powerful bird than *C. canorus*, with short wings and heavy bill. The plumage of my bird is brown on the upper parts, with the yellowish mottling of immaturity. The under parts are fulvous, barred at long intervals with black, but there are deep-rust-colour indications of a change into what should be the plumage of the adult bird.

44. *HIEROCOCCYX FUGAX*.

Cuculus fugax, Horsf. Linn. Trans. xiii.

Cuculus sparveroides, v. Schrenck, Amurland, i. p. 24, t. 10.

This abnormal form of Cuckoo, with peculiar bill and somewhat graduated tail, is ably described by von Schrenck in the work above noted, but wrongly referred to the much larger Himalayan type. It is also noticed in Jerdon's 'Birds of India,' p. 331. I have seen it in Hongkong in April; but have, unfortunately, only one individual in hepatic or rufous plumage from Manilla, and must therefore direct my readers to von Schrenck's work, with the caution, however, that the bird there figured is not in the plumage of the adult. This species of Cuckoo is, curiously enough, spotted and streaked instead of being barred on the under parts. I have to thank Mr. Blyth for drawing my attention to Dr. Horsfield's type specimen in the E. I. C. Museum, from the Straits, which appears identical with our bird.

45. POLYPHASIA TENUIROSTRIS.

Cuculus tenuirostris, Gray.

A summer visitant to the south of China, though some few stay very late. I have an adult male, shot at Amoy on the 9th of December 1857. Chinese specimens agree almost entirely with those from India; but their tints are usually of a higher tone, the grey runs lower down on the breast, the under parts are more brightly rufescent, there is much more whitish on the edge of the carpus, and much less white on the under wing. The bills and wings of my specimens vary somewhat in length. Like the larger Cuckoos, this bird in the adult plumage often exhibits bars of red on the upper parts; and frequent cases of the rufescent or hepatic plumage occur. I have one adult male which is of a fine chestnut-red on the upper parts barred with bronze-black, the under parts being rufous barred with black and white. One specimen in the partial hepatic plumage has an admixture of grey on the lower parts, showing a tendency to the allied *P. nigra* of Hindostan. The notes of the Indian *P. tenuirostris* would appear, according to Jerdon, to differ from those of our summer visitant.

46. CENTROPUS VIRIDIS, Scopoli.

C. bengalensis, Gmel.

C. lepidus, Horsf.

C. affinis, Horsf.

C. tolu, Raffles.

C. pumilus, Lesson, &c. (see Jerdon, Birds of India, i. p. 350).

This small Lark-heel is a resident species in South China, being chiefly confined to islands. It is somewhat rare on the main, where the large species abounds. In Formosa it is the only species. (See The Ibis, 1861, p. 48.)

47. CENTROPUS RUFIPENNIS, Illiger.

(For synonyms, see Jerdon, Birds of India, i. p. 348.)

C. sinensis, of my "Canton List," Ibis, 1861, p. 49.

C. eurycercus, A. Hay.

The large Lark-heels from India, Malacca, and China have been

considered as three distinct species. The first I have received from Mr. Blyth, the second from Siam through the kindness of Sir R. Schomburgk, and I have a large series from Canton and Foochow. In size, form of bill, and proportion of wings and tail-feathers, the bird is as variable as in the distribution of black bars on its upper plumage. I have skins showing quite as narrow tails as in *C. rufipennis* of India, and others displaying even broader rectrices than in the *C. eurycercus* from Siam. I have thus been compelled to unite them together. The habits as well as the notes of the species observed by myself tally closely with Jerdon's remarks, with the exception of what he states of the nest. I have never found the nest domed as is that of *C. viridis*. It is shaped like a long narrow basket, made almost entirely of fresh grass, suspended in the centre of a thick hedge, and usually contains four pure-white eggs, ovate and not roundish as those of its small ally. This Crow-pheasant is a resident bird in South China, ranging a few hundred miles above Foochow, —not quite so far north, I think, as Ningpo.

PICIDÆ.

48. YUNX TORQUILLA, L.

Yunx japonica, Bp. Consp. Av. p. 112.

Summers in North China, the Amoor, Kamtschatka (v. Schrenck), and Japan, and winters in South China, at which season it is very common at Amoy. Lives almost entirely on ants. Specimens very variable as to tints, spots, and markings. This Eastern form is rather smaller, and offers a few peculiarities distinguishing it from the European bird, but scarcely sufficient to cause it to be recognized as anything more than a race of the European type.

49. MICROPTERNUS FOKIENSIS, Swinhoe, P. Z. S. 1863, p. 87.

Allied to *M. phaiiceps*, Blyth, of India, and *M. badius*, Raffles, of Java, which form Bonaparte and Malherbe's genus *Phaiopicus*. Procured at Foochow, where it is a resident species, and probably extends throughout Southern China. I may here remark that a Sumatran specimen received from Professor Schlegel, labelled *P. brachyurus*, Vieill. (*P. badius*, Horsf.), is much larger than my Malacca specimens so named by Mr. Blyth, and has the throat strongly mottled with blackish brown, as is the *M. gularis*, Jerdon, of South India and Ceylon; but the various brown species with red spotted cheeks in the male are so intimately connected by intermediate forms from intermediate localities, that, like the *Picus major* group, they cannot be regarded as more than local races. *M. badius*, Temm., of Borneo, which I have also received from Professor Schlegel, seems however to establish its own distinctness by the red markings of the male extending in specks to the eyebrow and occiput.

50. GECINUS CANUS, Gmelin.

Picus chloris, Pallas.

North China, about Peking, where common; also Amoorland (v. Schrenck).

51. *GEVINUS GUERINII*, Malherbe.

Originally described from specimens from Shanghai. Procured by Captain Blakiston on the Yangtze, near Shanghai. Differs chiefly from *G. canus* in its smaller size, in its deeper and more olive plumage, in its larger frontal red patch, and in having a black-marked occiput.

52. *GEVINUS TANCOLA*, Gould, P. Z. S. 1863; Swinhoe, Ibis, 1863, p. 389.

Allied to *G. occipitalis*. The young in the nest are similar to their parents in colour and markings, showing the usual sexual distinction; in this respect they differ from *G. viridis*, which has an immature dress. I have a young pair (male and female) taken, with the male parent, from a tree on the Pehling Mountains, near Foochow. This species ranges over the higher hills of South China and Formosa.

G. guerinii, from an intermediate locality, is quite intermediate between this and the true *G. canus*. In *G. canus* the black on the crown shows itself in faint streaks; in *G. guerinii* it becomes marked, and extends in a patch to the occiput; in *G. tancola* it is much more extensive. In the same way the black moustache-streak, indistinct and disconnected in the first, is more connected in the second, and in the third a broad black line. In fact, part with part compared, the entire plumage of *G. guerinii* takes an intermediate position between the two. Nevertheless specimens of *G. canus* from Peking are identical with European specimens, and show the barred immature plumage.

53. *PICUS MANDARINUS*, Malherbe.

P. luciani,
P. gouldii, } Malherbe, Mon. Picedæ.
P. cabanisi, }

For remarks on this group of Chinese Woodpeckers, see P. Z. S. 1863, p. 88. Races of this variable bird are found throughout China, from Canton to Peking. The further north they extend the whiter and more spotted they become, until the Amoorland is reached, where von Schrenck reports the form identical with *P. major* of Europe.

54. *PICUS SCINTILLICEPS*, Swinhoe, Ibis, 1863, p. 96.

Belongs to the spark-headed group of small Pied Woodpeckers, of which numerous species are recorded. Common about Peking. A smaller and browner species occurs in Japan (the *P. kisuki* of the Faun. Jap.); and the form is represented in Formosa by a species allied to the Chinese bird—my *P. kaleënsis* (see The Ibis, 1863, p. 390).

55. *PICUS HYPERYTHRUS*, Vigors, var. *POLIOPSIS*, Swinhoe.

Abundant near Peking. The Chinese bird is too close to that of the Himalayas to be considered more than a variety of that bird (see

Ibis, 1863, p. 96). Its back is more barred with white, and it has less rufous on the sides of the neck.

CAPITONIDÆ.

56. MEGALÆMA VIRENS, Bodd.

Bucco grandis, Gmel.

Inhabits wooded hills of Southern China, and the Himalayas. I have received specimens from the neighbourhood of Foochow, and Captain Blakiston shot it on the 16th of March near Canton.

ALCEDINIDÆ.

57. HALCYON SMYRNENSIS, L.

H. fuscus, Jerdon, Birds of India, i. p. 224.

A common resident species from Canton to the River Yangtze.

58. HALCYON ATRICAPILLA, Gmel.

H. pileata, Gray ex Bodd.; Bp. Consp. Av. p. 155.

Also a resident species from Canton to the Yangtze.

59. ALCEDO BENGALENSIS, Gmelin.

A. ispidioides, Lesson.

Found throughout Eastern Asia to the Amoor, in Japan, and in Formosa. In the female the plumage is not so brilliant; but the chief sexual distinction is her pale-yellowish-red under mandible, which is always black, like the rest of the bill, in the male and young bird. This I have found a constant character in the Chinese bird, but I do not see it remarked in Jerdon's account of this species, nor yet in v. Schrenck's 'Amurland.' The bill of the young bird is tipped paler; its breast is washed with a dingy bluish grey, almost black in some individuals; the rufous has only a slight admixture of yellow; and the upper plumage is paler and dingier. I suspect that the mandibular distinction of the female will also be found to hold good in the European *Alcedo ispida*, L., and I would call the attention of British ornithologists to the fact.

60. CERYLE RUDIS, L.

Found about all rivers in South China from Canton to Foochow; does not extend so far north as Shanghai. The males carry two bands across the breast. In very mature males the throat and under-neck are spotted thickly with round black spots. In spots and particular markings my specimens vary a good deal.

CORACIIDÆ.

61. EURYSTOMUS ORIENTALIS, L.

A summer visitant to Southern China; procured at Canton and Foochow. At the latter port a male used to perch for the greater part of the hot spring days on the top of a flagstaff, whence it

uttered its loud unmusical notes, springing at intervals into the air, and after throwing a somerset returned to its post. This action was not performed in the pursuit of insect food, but apparently in play. For a further account of its habits see *The Ibis*, 1861, p. 31.

CERTHIIDÆ.

62. TICHODROMA MURARIA, L.

A specimen of a bird answering to this was shot by Mr. Consul Gingell on the mountain-plateau near Foochow during winter. The bird was accurately described to me by that gentleman, but I did not see the specimen. I have never met the bird myself in China.

Certhia familiaris, L., is given from Amoorland and Japan. We should therefore expect to meet with it in North China.

PARIDÆ.

63. PARUS MINOR, Schleg. Faun. Japon.; and

64. PARUS CINEREUS, Vieill.

The first of these is the form found in Japan and from Chefoo (Shantung promontory) down to Foochow. It is easily distinguished from the second by its greenish-yellow back and its smaller bill. *P. cinereus* is the form ranging over India and its archipelago, and has a grey back. In Amoy we get the typical *P. minor*, and others with grey backs, resembling the *P. cinereus*, but with the smaller bill of *P. minor*. Between these two every stage of yellow and grey back can be procured out of the same party of Tits. In Canton occasional specimens of true *P. cinereus* occur, but the most ordinary form is the variety oscillating between the two species. Most Canton specimens have, however, larger bills. I have never seen the typical *P. minor* shot so far south as Canton; and Mr. Blyth tells me that he has never heard of the yellow-backed form being found in the Indian countries. Hence it is but fair to consider the two extreme forms as good species, and allow that they interbreed on the boundaries of their respective localities, and blend into one another gradually and almost imperceptibly. The large *P. major*, L., is said by Pallas to extend throughout Siberia to Kamtschatka.

65. PARUS KAMTSCHATKENSIS, Bp.

P. borealis, Selys?.

P. palustris, var. *borealis*, von Schrenck, Amurland.

P. palustris, Swinhoe, *Ibis*, 1861, p. 331.

This form of the Marsh-Tit prevails from Peking to Amoorland. I have met no Marsh-Tit in South China. It has also been procured from Hakodadi, Northern Japan.

66. MECISTURA CAUDATA, L.

Mr. Gould remarks that Japanese specimens of the Long-tailed Tit closely resemble British specimens, which offer variation from those procured in continental Europe; while von Schrenck found

those from the Amoorland so similar to European birds that he has set them down as identical. I have no specimens with me, but I observed the form common about the plantations at Shanghai in July 1857. I have never met them further south in China. Captain Blakiston met them at Shanghai in January; hence we may infer that in that neighbourhood at least they are a resident species, or found both winter and summer.

67. *SUTHORA WEBBIANA*, G. R. Gray, P. Z. S. 1852, p. 70.

First procured by Mr. Webb near Shanghai. Captain Blakiston met with it in large companies at Shanghai in January. He says they hang about the twigs like Tits. I have never come across the bird.

ALAUDIDÆ.

68. *MELANOCORYPHA MONGOLICA*.

Alauda mongolica, Pall.

Frequents the Mongolian desert near Peking, and is kept as a cage-bird throughout China (see *The Ibis*, 1861, p. 333).

69. *CALANDRELLA PISPOLETTA*, Pall.

Alauda pispoletta, Pall.

Cultivated fields of Talien Bay, North China (see *The Ibis*, 1861, p. 255). These have more conical bills and longer tails than the European *C. brachydactyla*, and are doubtless referable to Pallas's species from Siberia.

70. *ALAUDA ARVENSIS*, L.

A. pekinensis, Swinhoe, P. Z. S. 1863, p. 89.

A. japonica, Swinhoe, *Ibis*, 1861, p. 333; 1863, p. 94.

A. arvensis, von Schrenck, *Amurland, &c.*, i. p. 273?.

The Skylark is abundant about Peking, and ranges into Amoorland, whence von Schrenck procured specimens. I have, since describing it as peculiar, seen specimens, shot in England, in Mr. Tristram's collection identical with my skins from Peking.

71. *ALAUDA CANTARELLA*, Bp.

A. intermedia, Swinhoe, P. Z. S. 1863, p. 89.

This is the Lark that abounds in the valley of the Yangtsze and Shanghai. It is intermediate between the above and the following. This bird was first procured by Prince Bonaparte at Florence. Mr. Tristram has one, shot by himself in Geneva, which is identical in every way with the Shanghai bird. It is difficult to believe that this form extends right across the vast continent, maintaining its distinctness from *A. arvensis* throughout; but it seems rather that the operation of similar causes in the extreme west and east has produced the same form.

72. *ALAUDA CÆLIVOX*, Swinhoe, Zoologist, 1860.

This is a small Lark common from Canton to Foochow, and in Formosa. My specimens from the latter place are more largely spotted on the back, and the streaks on the breast are much broader and numerous, but they are otherwise so similar that they can only be regarded as a race.

73. *GALERIDA LEANTUNGENSIS*.

Alauda leantungensis, Swinhoe, Ibis, 1861, p. 256.

Common about the hills of cultivated valleys of Talién Bay, North China. A species of crested Lark is noticed by Pallas as *Alauda galerita* from Dauria.

74. *OTOCORYS ALPESTRIS*, L.

O. penicillata, Gould.

O. scriba, Bp.

O. albigula, Brandt.

A specimen was procured by Mr. Fleming at Tientsin (see The Ibis, 1863, p. 95). Von Schrenck notes a bird of this genus as the *O. alpestris*, L., from Amoorland. I have compared mine, in company with Mr. Tristram, with a specimen of *O. alpestris* of Europe, and we can find no difference. All the species of this genus appear to get yellow faces in the breeding-season.

75. *CORYDALLA RICHARDI*, Vieill.

C. sinensis, Bp.

Anthus thermophilus, Hodgs., of my previous lists.

C. infuscata, Blyth.

I have a very large number of this species, shot at Amoy and elsewhere in China, Siam, and India. It is in South China a winter bird, but a few remain about the hills to breed. I found a few on the Foochow hills in June; these were smaller, with larger bills and legs, and darker and more distinctly marked plumage. I sent one to Mr. Blyth, who, under the impression that it came from the Philippines, christened it under the new name *C. infuscata*. But between this and the ordinary winter race I have every gradation of form and plumage. I also procured in spring at Amoy a few specimens of a somewhat smaller Pipit, richly washed with ochreous; this is Bonaparte's species *C. sinensis*, and, if correctly identified by Mr. G. R. Gray, *Anthus thermophilus*, Hodgs. But here again in my large series every step both in form and colour occurs between it and the larger pale race. It is easy to conjecture how these different climatic races of the same bird should turn up at one spot. For the island of Amoy by its position affords a resting-place to vast numbers of birds bound on widely different migrations; and the different groups of the Richard's Pipit, influenced in their forms and tints by the greater or lesser heat of their birth-places and summer resorts, and doubtless by other local causes, in passing to their winter

quarters rest for a few days on our island. The large pale variety stays the cold season with us; the rich-tinted variety arrives early, passes away, and returns late, thence showing that it has a long way to travel southwards. The intermediate forms are less regular in their movements. As the nesting-area is found to be more fixed than their winter haunts, the same birds returning to breed year after year to the same spot, it is not improbable that the extreme forms of these races would be found to inhabit in summer areas widely divided, the intermediate gaps being filled up with forms intermediate and approximating most nearly to those to which they were nearest, until amalgamation would ensue.

76. ANTHUS (AGRODROMA) GUSTAVI, Swinhoe, P. Z. S. 1863, p. 90.

Touches at Amoy during the first fortnight of May, bound from the south into the interior of Central China.

77. ANTHUS BLAKISTONI, Swinhoe, P. Z. S. 1863, p. 90.

Allied to *A. obscurus*, Gmel. Procured by Captain Blakiston on the Yangtze. A species referred to *A. aquaticus* is noticed by von Schrenck from Kamtschatka; and the same is also given by Schlegel from Japan. These may be identical with our species.

78. ANTHUS CERVINUS, Pall.

A winter bird in South China and Formosa, which passes the summer in Kamtschatka and the northern regions. Von Schrenck does not notice it in Amoorland. Flocks pass over Amoy as late as the first week in May; these are probably arrivals from the Indian Archipelago, whence specimens in winter plumage have been received. Before leaving us the bird undergoes an entire moult, when the eye-brows, throat, and breast show a pale vinaceous mixed with more or less ochreous, but unspotted. As the nuptial season comes on, the silvery tinge intensifies into a uniform dusty vinaceous, which encroaches further on the lower parts. I have a fine series showing every gradation between the pale-spotted winter and the fine nuptial dress.

79. ANTHUS JAPONICUS, Schleg.

This is said to occur in North China and the Amoor, but I have never procured any specimens of it. I have a strong suspicion that it is only the winter dress of *A. cervinus*.

80. ANTHUS AGILIS, Sykes.

This Tree-Pipit stays the winter in the south of China, and summers in the north, Amoorland, and Japan. The birds from the two last have generally been noted by writers as *A. arboreus*; and Bonaparte, in his 'Conspectus,' remarks on the Japanese form as "*vix distinctus*." Our bird is the same as the Indian *A. agilis*, and can scarcely be regarded as more than a race of the European *A. arboreus*.

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81. BUDYTES FLAVA, L.

B. cinereocapilla, Savi.

Our Amoy and South-China bird moults in summer into the true European *B. flava*, with grey head and cheeks, white eyebrow and chin. Those received from Tientsin (North China) in nuptial dress have the entire head grey, and are almost undistinguishable from *B. cinereocapilla*. *B. cinereocapilla* was procured in October at Canton by Captain Blakiston. The Formosan variety retains the head green, with a yellow eye-streak, as the *B. rayi* of Great Britain, but differs in having dark olive cheeks. According to von Schrenck, in Amoorland the true *B. flava* occurs, and not the grey-headed *B. cinereocapilla*. In the Malayan Archipelago, I am told, the green-headed variety occurs, but with dark, almost black cheeks; and I suspect that the true British form, with yellow cheek-spot, will turn up at Japan, at which most of the European birds that extend to East Asia undergo a similar change in plumage to what takes place in British forms as compared with those of Europe. I would draw attention to the fact that the Japanese climate is affected by the Pacific Gulf-stream in a manner corresponding to the influence exercised over the British Islands by Maury's "River in the Ocean;" and doubtless the similarity of climate so caused is at the root of this similarity of variation.

82. MOTACILLA (PALLENURA) BOARULA, L.

M. (Calobates) sulphurea, Bechst.*M. melanope*, Pall.

Found throughout China and Formosa, the Amoor, and Japan. Is more a vagatory than a migratory species, and is found at all seasons in the south of China.

83. MOTACILLA LUZONIENSIS, Scop.

M. alba, var. *paradoxa*, von Schrenck.*M. leucopsis*, Gould, P. Z. S. 1837, p. 78.*M. alboides*, Hodgs. As. Res. xix. p. 190.

This white-faced Pied Wagtail is a common species throughout China and Formosa, extending into Amoorland. It is also found throughout India and its archipelago, as far as the Philippines. The young are yellowish olive-grey on the upper parts and breast, and have the white of the body more or less washed with ochreous. The male in summer plumage has the occiput and upper parts glossy black, the black of the breast extending nearly to the chin. In winter large flocks of this species visit South China from the north, but a fair number spend the entire year with us. Cognate to *M. alba*, but smaller, and with much whiter wings.

84. MOTACILLA LUGUBRIS, Temm.

85. MOTACILLA JAPONICA, Swinhoe.

86. MOTACILLA OCULARIS, Swinhoe.

Under the term *M. lugens* seu *lugubris* there has been a confusion of the races of the Pied Wagtails with black eye-streaks, which I have been at some pains to clear up. The difficulty began with Temminck, who, in his 'Manuel d'Ornithologie,' p. 175, described Pallas's Russian species from Japanese examples. He there gives the summer plumage as having the *forehead white*. At a later date Professor Schlegel refused to acknowledge the existence of Pallas's species as a European bird. Pallas, however, procured his typical specimens, as he tells us, from the shores of the Black Sea; and it has since been brought by officers from the Crimea, and by Mr. Tristram from Egypt. One of Mr. Tristram's two specimens (both of which I have carefully examined) has been figured in Mr. Bree's work on the Birds of Europe. I have no hesitation, therefore, in applying Pallas's name to the race or species found in Western Asia adjoining Europe. Middendorff (Sib. Reis.) applies Pallas's name to the Wagtail of Amoorland, which, from his description, is identical with the bird found throughout China, of which I possess numerous examples in all plumages from Amoy, and one adult summer male from Tientsin. This permanently grey-backed race I have named *M. ocularis*. In Japan a race occurs similar to the Chinese bird, in having the broad white forehead, but resembling the *true M. lugubris* in its summer black back. The following diagnosis will, I think, serve to distinguish the three races or species.

(1.) MOTACILLA LUGUBRIS, Temm.

M. albeola, var. *lugens*, Pall.

From two specimens shot by Mr. Tristram, 2nd February 1860, in Egypt. The pectoral band incomplete, showing the birds to be in winter plumage. *Forehead black; upper parts blackish brown, with no indications of bluish grey; the primaries are white for only one-third at their bases, and the lateral tail-feather is entirely white.*

Hab. Shores of Black Sea; Odessa; Turkey; Egypt (in winter).

(2.) MOTACILLA JAPONICA, Swinhoe.

M. lugubris seu *lugens*, Temm. & Schleg. Faun. Jap.

The adult summer plumage of this race has been correctly figured in the 'Fauna Japonica.' *The forehead is always white; greater part of primaries pure white, but the white lateral tail-feathers with a black inner edge.* In winter its back becomes smoke-grey, but always more or less patched with black, with a black shoulder.

Hab. Japan; straggles to the China coast in winter.

(3.) MOTACILLA OCULARIS, Swinhoe.

M. alba, var. *lugens*, von Schrenck & Midd.

M. albeola, var. *kamschatica*, Pall.

Back, scapulars, and shoulder-patch perennially light French grey; quills more or less broadly edged with white, never so entirely white as in foregoing; lateral white tail-feathers broadly edged anteriorly with black. In summer the breast blackens to the bill,

leaving however the cheek and side of neck white as before; the plumage remains otherwise the same.

Hab. Eastern Siberia; China; Formosa; through Amoorland to Kamtschatka. Some stay all the year in South China and Formosa.

From the appearance of Mr. Tristram's specimens, it strikes me that the true *M. lugubris* in summer has the entire head and neck black, leaving only the white eyebrow. If this be the case, it would be more nearly affine to *M. maderaspatana*, Briss., of Hindostan, from which, however, it differs in its smaller size and in the different distribution of white on its wings. I am strongly of opinion that its affinities are, strictly speaking, rather with this South Asiatic form, and not with the East Asiatic species, both of which have broad white foreheads, and in full summer plumage the cheeks and sides of neck white. In winter our two Eastern species can always be distinguished from *M. alba* and cognate races by the black eye-line. In that season *M. lugubris* and *M. maderaspatana* approach our birds by retaining the black eye-line, but it is in them much broader, and their backs vary from a pale to a dusky brown, and have none of the blue-grey tint that is to a great extent acquired even by *M. japonica*. Bree is certainly wrong in the blue coloration of the back in his plate, for neither of Mr. Tristram's birds shows any trace of it. The rarity of the true *M. lugubris* in collections has doubtless led to all the confusion that exists; but whether we regard them as races or good species, it is worth while, for the sake of scientific accuracy, that these variations should be correctly identified and localized.

87. NEMORICOLA INDICA, Gmel.

Noticed by me near Pekin (Ibis, 1861, p. 333), and afterwards brought home from same locality by Mr. Fleming (Ibis, 1863, p. 94).

CINCLIDÆ.

88. HENICURUS LESCHENAULTII.

Turdus leschenaultii, Vieill.

Motacilla speciosa, Horsf.; Ibis, 1861, p. 265.

Enicurus coronatus, Temm. Pl. Col. 113.

Never observed by me in China except on the hills round Foochow, where I have procured it both in winter and summer. My specimens from that locality correspond entirely with Javan skins.

89. HENICURUS SCHISTACEUS, Hodgs. As. Res. xix. p. 190; Ibis, 1861, p. 409.

The only Chinese specimen I ever saw of this bird was procured in February 1861 by M. De Grijns, Netherlands Consul at Amoy, in the tea-hills some 150 miles inland of Amoy. The skin was, I believe, forwarded to the Leyden Museum. It was kindly lent to me, and I took down the following note from it:—"Bill black; legs and claws pale flesh-colour; upper parts slate-colour; a white streak crosses the forehead and runs over the upper half of the eyelid; nostrils, throat, and cheeks black; under parts pure white; smoke-grey on the flanks, and black under the shoulder; wings and tail

deep blackish brown; shoulder-edge, tips of greater coverts, spot on base of primaries, and tips of secondaries white; rump, two outer tail-feathers, and tips of the rest white." M. De Grijs told me that he saw these birds on the margins of pools on the hills, and that they frequently uttered twittering notes not unlike those of the Sandpiper (*Tringoides hypoleucus*), but louder. I compared the Chinese skin at the time with one from Burmah, received from Mr. Blyth, and could not find any noticeable difference between them.

90. *CINCLUS PALLASII*, Temm.

This is noted from Amoorland, Japan, and Formosa. I have therefore no hesitation in including it in my Chinese list, as it is sure to occur in the interior mountain-ranges.

91. *PITTA NYMPHA*, Schleg. Faun. Jap. Supp. pl. A.; Ibis, 1861, p. 412.

I never procured but one specimen of this bird, and that was in June 1861 at Amoy; so that at present I cannot regard it as more than a straggler, probably from the extreme south of China. My specimen runs uncommonly close to *P. cyanoptera*, var. from Siam, which has the black crown-line separate from the nuchal bar. Mine has the black crown-line only indicated by a brown patch, and the white on its wings more extended. At the best I presume it can only be considered a race of the varying species *P. cyanoptera*. The Malacca race has the black crown-line united to the nuchal bar.

92. *MYIOPHONUS CÆRULEUS*, Scop.; Ibis, 1861, p. 36.

Common on all the retired rocky hills from Canton to Ningpo, where it is ever a constant resident. The males are a good deal larger than the females. It finds its nearest ally in the *M. temminckii*, Vigors, of Assam and Arakan, which is always distinguishable from our black-billed bird by its partly yellow bill. The group is represented in Formosa by a species of the subdivisional form *Arrenga*, hitherto only known from Java and the Neilgherries.

PYCNONOTIDÆ.

93. *HYPSSIPETES HOLTII*, Swinhoe, Ibis, 1861, p. 266.

Very closely allied to *H. maclellandi*, Horsf. First procured at the Foochow hills. Has since been obtained on the Ningyang tea-hills near Amoy (see The Ibis, 1861, p. 409). Resident on the hills.

94. *IXOS JOCOSUS*, L.

Gracula cristata, Scop.

Sitta chinensis, Osbeck.

In China not found north of Canton; about that city it is specially common (see The Ibis, 1861, p. 39). Our specimens appear identical with those from Calcutta. The young birds have a brown instead of a black crest, the lore and under the eye only being black, and the upper plumage generally is much lighter and mixed with

light yellowish red. The vent is brownish buff, with only a tinge of crimson, and the crimson eye-spot is entirely wanting.

95. *IXOS CHRYSORRHODES*, Lafresn. ; Ibis, 1861, p. 39.

Crown of head black; under the eye, lore, and chin blackish brown; vent crimson. This is a common resident species in the south of China, from Canton to Foochow.

96. *IXOS SINENSIS*, Gm.

I. occipitalis, Temm.

A very common resident species from Canton to Foochow, and also in Formosa. The young of this species have the head a uniform colour with the back, which is light brown instead of grey; the rest of the colours are much paler. Among my series from Amoy I have one very curious variety, in which the white of the occiput and throat is of a fine clear smoke-grey. My specimens differ from one another chiefly in the development of the white occipital patch; some have it very large, and occupying a good portion of the head, while in others it gets encroached upon by the black, until in some specimens it almost entirely disappears. There is also a great variation in size, and length of wing and tail; but in the form and length of bill the difference is not so appreciable as I have found it in many species of birds.

97. *SPIZIXOS SEMITORQUES*, Swinhoe, Ibis, 1861, p. 266.

A resident species in the high plateau near Foochow. I have also procured it from the mountain-ranges of Formosa. The male and female are of similar form and colouring.

TIMALIIDÆ.

98. *LEUCODIOPTRON SINENSE*, L.

L. canorum, L., of my previous lists; Ibis, 1861, p. 38.

The Chinese Song-thrush, or Hwa-mei. A common bush-bird about all the hills from Canton to Foochow. Is replaced in Formosa by a closely allied form wanting the white eyebrow. Is frequently kept in confinement by the Chinese for its fine song and pugnacious habits.

99. *GARRULAX PERSPICILLATUS*, Gmel. ; Ibis, 1861, p. 38.

A resident bird from Canton to Foochow.

100. *POMATORHINUS STRIDULUS*, Swinhoe, Ibis, 1861, p. 265.

Only as yet procured from the hills near Foochow.

TURDIDÆ.

101. *OREOCINCLA AUREA*, Hollandre.

Turdus whitei, auct. Brit.

Two seen at Amoy in March 1859; a male procured. Feathers

of a specimen were found in a wood near Pekin (see *The Ibis*, 1861, p. 333). I extract my note on the bird procured:—Length $11\frac{1}{2}$ in.; wing $5\frac{2}{10}$; tail $4\frac{1}{4}$; bill 1, to gape $1\frac{4}{5}$; tarsi $1\frac{4}{10}$; mid toe $1\frac{3}{10}$; hind toe 1; side toes equal. The second primary is $\frac{1}{4}$ inch longer than the fifth, whereas Bonaparte, in his 'Conspectus Avium,' says that in the true *O. aurea* they are equal. Bill pale brown; legs and claws pale brownish; irides deep hazel; feathers of the rump spinous, as in the Cuckoos, *Geocichlæ*, *Campephagæ*, and *Pericrocoti*; testes dark purple; stomach somewhat oval, compressed, rather muscular, and about $\frac{9}{10}$ in widest diameter; intestine 17 inches long, from $\frac{2}{10}$ to $\frac{3}{10}$ wide; cæca $\frac{1}{4}$ long, one slightly higher than the other, and placed $1\frac{1}{2}$ inch distant from anus. Whether this be a distinct race from the Siberian and rare British visitant I am not prepared to say; I have but one specimen of our bird. It was an extremely rare visitant to Amoy, and, as far I could ascertain, only in spring, when the banyan-berries were ripe. I presume it came from the wooded mountain-ranges of the interior. Formosa yields a race which is larger and paler than the Amoy bird, with sensibly longer wings and tail. For this I have proposed the specific name *O. hancii* (see *The Ibis*, 1863, p. 275). The Japanese race, which is declared to have been shot in Britain, as well as the true *O. aurea*, is by some considered a good species, and has been named *O. heinei*.

102. TURDUS SIBIRICUS, Gm.

T. leucocillus, Pall.

A male in complete plumage shot at Amoy, 19th April, 1861, was of a smoky black, with a pure white eyebrow, white on the axillaries, a white bar across under wing, and drops of white on the medial belly-line and crissum. Bill black; inside of mouth orange-ochre; edge of rictus pale dusky yellow; legs and claws ochre, with saffron base to tarsi and soles of toes.

This is said to be a common bird in Siberia. In Japan it probably breeds, as Captain Blakiston brought young birds from Hakodadi. In the south of China it is rare, occurring occasionally during its migrations. It is said to have been procured as far south as Java, but is not noticed by von Schrenck from Amoorland. The females are brown and Thrush-like; and the young plumage closely assimilates the species to *Oreocincla*, which group it also approaches in the somewhat spinous rigidity of the feathers of its rump, and in the white bar across its wing. In addition to these two last characters, in the smoke-grey hue of its mature plumage it appears to show a decided tendency towards the Campephagine group *Volvocivora*, which in the immature state has the white bar across the wing, allying it to the usually red-tinted *Pericrocoti*, one of which (the *P. cinereus*, Lafresn.) has, like it, a sober grey plumage and a constant white under-wing bar. The *Campephagæ*, as most naturalists are aware, also enjoy the peculiarity of having spinous rump-feathers, which prick the hand when passed upwards over the rump. All true *Geocichlæ* have this curious spinous character, as also the white bar across the under wing.

103. *TURDUS CARDIS*, Temm. Pl. Col. 518.

This Thrush hails from Japan. It is noted from the Amoor by von Schrenck. It is found in flocks every winter on the south coast of China, as far as Canton. I do not know whether the young males on leaving the nest resemble the female; but when they reach Amoy, they differ in being duskier, with larger spots, and with scarcely any rufous except on the axillaries. The plumage continues to change gradually, the olive-green upper parts at first becoming smoke-grey, and the spots on the breast disappearing, until the entire bird is black, except on the belly and vent, which remain white. I have a series of five males showing the gradual transition. Like all Thrushes, *T. cardis* varies much in size. The female retains her immature or *Turdine* dress. I have four females of different ages. The older birds are more richly coloured, with larger spots, and more rufous on the under parts.

104. *TURDUS HORTULORUM*, Sclater, Ibis, 1863, p. 196.

Found as a resident species in South China, about Canton and Macao. Mr. Blyth once procured a similar bird at Calcutta (which he named *Geocichla dissimilis*), but I have reason to believe it is not the same as the South-China species; neither surely can it be *T. cardis*, with which Jerdon, in his 'Birds of India,' has confounded it. Mr. Sclater has drawn the character of the species from the oldest male I possessed, but it is not quite matured. It strikes me that the adult will have the whole throat and breast cinereous, instead of only a pectoral band of that colour.

105. *TURDUS CHRYSOLAUS*, Temm. Pl. Col. 537.

Summers in the Amoor and Japan. Visits the south of China during winter in flocks, extending its migrations easterly to Formosa and Manilla.

106. *TURDUS DAULIAS*, Temm. Pl. Col. 515.

T. pallidus, Gm. ex Lath.

Common during winter in South China and Formosa. Spends the summer in Amoorland and Japan.

107. *TURDUS PALLENS*, Pall.

T. obscurus, Gmel.

Found in Japan and the Amoorland; migrates southwards during the winter.

108. *TURDUS FUSCATUS*, Pall.

Found during winter in South China; noted from Amoorland.

109. *TURDUS NAUMANNI*, Temm.; Ibis, 1862, p. 319, pl. x.

Found in the Amoorland; and specimens have been received from China as far down as Shanghai. On the more southern coast it is occasionally, though rarely, met with during winter.

110. *TURDUS RUFICOLLIS*, Pall.

This Fieldfare I found in flocks about Peking in the commencement of the cold season (see *The Ibis*, 1861, p. 332, and 1863, p. 93). I have never met with it in Southern China, and it is not noted from either Japan or the Amoor.

111. *TURDUS (MERULA) MANDARINUS*, Bp. *Consp. Av.* p. 275.

Both sexes of this Blackbird have lemon-coloured bills, that of the female being tipped with black. The female is usually browner than the male; but the male himself is a dull brownish black, and sometimes the two are uncommonly hard to distinguish, especially before the immature bill has changed to yellow. This is a common resident species throughout Southern China, from Canton to Shanghai. I did not meet with it in Peking, nor has it been noted from the Amoor. It builds a nest like that of the common Blackbird, but its eggs more resemble those of the Missel Thrush (*T. viscivorus*).

112. *PETROCINCLA MANILENSIS*, Bodd.

P. pandoo, Sykes.

P. affinis, Blyth.

The Rock-Thrush of Formosa and of all the exposed islands has, as far as I have ascertained, invariably a red belly in the adult male, and answers to the *P. manilensis* of authors. It is found on the Chinese coast, from Canton to Tientsin. But on the Chinese main, some distance inland, the bird is blue, and undistinguishable from *P. pandoo*, Sykes. Nearer the coast we have the intermediate race, *P. affinis* of Blyth, with partly red under parts and somewhat more graduated tail. From Amoy I have procured all three forms, and every intermediate gradation. The females of all three are, to my eyes, identical. Now the only way I can account for these three so-called species inhabiting the same locality is, that, being near the sea, the island constantly receives fresh individuals from the channel islands, which interbreeding with the blue race, *P. pandoo*, produce the third, *P. affinis*, and the intermediate forms. In song, habits, and nesting the two extreme forms observed at Amoy and in Formosa are not to be separated; and their females are so alike that it strikes me that, to solve the difficulty, we must believe the two of one common parentage, sequestered by circumstances, and, owing to climatal or other causes, to have undergone an amount of change in their internal economy sufficient to alter the colour of their under plumage, but that this change has not so far alienated the two races as to prevent them interbreeding freely, and producing fertile offspring, in places where they are thrown together. In my large series the skins vary a good deal in size, proportions of bill, wings, tail, and legs. *P. pandoo* is generally separated from the *P. cyanea*, but I do not see on what sufficient grounds. Mr. Jerdon, in his 'Birds of India,' has rightly enough connected them. It is easy to account for *P. affinis* occurring in Burmah; for we know that the red-bellied *P.*

manilensis occurs on the coasts of Java and Siam, and, I suspect, would be found on the Andamans and on the coast of Burmah itself, where they would meet with the blue race from the interior, and cross, as I know them to do in China; *P. affinis* would then be produced. In Amoy the red-bellied race, the blue race, and the *affinis* are found in about the proportion 4:2:1. This fact of red-bellied and pale-bellied birds crossing and producing apparently fertile hybrids appears to be repeated in the small Cuckoos *Polyphasia* (see Jerdon, Birds of India, i. p. 335).

113. *ORCETES GULARIS*, Swinhoe, Ibis, 1863, p. 93, pl. iii., and 1861, p. 332.

This forest-thrush has its nearest ally in *O. cinclorhynchus*, Vigors. It has as yet only been procured from the neighbourhood of Peking.

114. *ORIOLOUS CHINENSIS*, L.

O. cochinchinensis, Briss.

O. indicus, Briss.

This is a summer visitant to the whole of China, and ranges as far north as the Amoor, and eastwards to Formosa. Our birds wend southwards in the winter. I have a specimen received from Siam, kindly sent me by Sir R. Schomburgk, and others from Malacca and Burmah in different stages of plumage, all identical with our summer visitant. These Malayan countries are therefore doubtless the winter resort of our bird; and I think it will be found that few, if any, of this species spend the warm season in those regions, their place being there supplied by an allied race, the *O. tenuirostris*, which we do not get. The male Oriole carries a partially immature plumage throughout the second year, the females to the third or fourth year; but in fully adult dress the sexes are not to be distinguished. It is, however, much rarer to see mature females than males. This similarity of adult sexes holds good in the allied *Psaropholus* group, and, as I am told by reliable observers, in all the Orioles.

CAMPEPHAGIDÆ.

115. *VOLVOCIVORA MELASCHISTOS*, Hodgs.

Campephaga —?, Ibis, 1861, p. 42.

C. avensis, Blyth.

C. silens, Tickell.

C. culminatus, A. Hay?

I have five of this species from China, two from Burmah, and one from Calcutta, of which the mature birds are identical in all respects, except in the size and proportions of the bill. If we regard this as a character in this bird, we should have to separate the adult specimen I procured at Canton from an adult from Amoy, the former having a very much shorter bill than the latter. But on comparison of specimens, the bill varies in each individual, and is therefore in-

sufficient as a character. *V. fimbriata*, as Jerdon remarks, does appear smaller; but all skins that I have seen from the Malacca collectors are shrunk in size, owing to their mode of preservation. Like the *Graucalus macei*, which I fully expect to meet with some day in China, this bird has a wide range over the greater part of tropical Asia. In South China, from Canton to Amoy, it is only a summer visitant, spending the season of nidification with us, and returning southwards again in the autumn. I have a nice series of the different stages of plumage it undergoes. I have a bird of the year, collected by Captain Blakiston in Canton, which is of a blackish grey, each feather carrying a bar of black and a broad cream tip; the quills and tail are greyish brown glossed with green, the former edged and tipped with cream-colour, and the latter broadly tipped with white; the under tail-coverts are cream-buff, irregularly barred with light black; many of the quill-feathers are edged inwardly with white, forming an indistinct under-wing bar. In this stage the bird appears to form a link between the young of *Oreocincl*a and *Dicrurus*. As it advances to maturity, the spots disappear, the plumage becomes light smoky grey, with a wash of rusty buff and faint bars on many of the under feathers; the white on the under wing increases and forms a distinct bar. In this stage it more resembles the second plumage of *Pericrocotus cinereus*, which in the young state also has a mottled plumage, but carries a white under-wing bar through all dresses. In the adult bird the white bar disappears entirely; the wings and tail become a glossy green-black, with broad white tips to all but the two central rectrices; and the rest of the plumage deepens into a bluish smoke-grey, much paler on the under tail-coverts. The female is paler and less glossy than the male, but in other respects similar. The adult bird, when viewed seated on the bough of a tree, launching forth on wing after an insect and returning to its post, brings forcibly to mind the habits of the *Dicruri*. But at other times it may be seen hanging about the ends of branches, searching the leaves, and taking short flits into the air. On these latter occasions the younger birds, especially with their white wing-bars, might be easily mistaken for large grey *Pericrocoti* with stunted tails.

116. PERICROCOTUS CINEREUS, Lafr.; Swinh. Ibis, 1861, p. 42.

Found in summer throughout China as far north as the Amoor. Procured originally from the Philippines, to which it probably wanders in the winter. In autumn and spring, flocks are frequently met with about Canton, Amoy, and Formosa. Its plumage is black, grey, and white, with an occasional tinge of saffron on the flanks and under-wing bar. Curiously enough, this yellow tinge is brighter on the younger birds and females than on the males. The male is distinguished from the female by its broad white forehead, by its black occiput and hindneck, and by the rest of its plumage being deeper and glossier. The youngest bird I have is from Peking, in which the under plumage is faintly barred, and the tertiaries barred with black and tipped with white. In this the under wing-coverts

and upper wing-spot are primrose-yellow. At first glance this might be taken for a Pied Wagtail. The spinous rigidity of its rump-feathers is stronger in this than in any other species with which I am acquainted.

117. *PERICROCOTUS CANTONENSIS*, Swinhoe, Ibis, 1861, p. 42.

This species, forming so happy a link between the preceding grey and some of the crocus-tinted forms of this group, I have as yet only seen from Canton, where it was pretty common. The tendency of the female to develop the yellow tints is in this much more strongly shown than in the last, so much so that Dr. Sclater declined to accept my identification of the sexes. But apart from any special examination of the sexual organs, the skins carry in their plumage their sexual stamp; for, analogous to what obtains in the foregoing species, the male of this has a white forehead and a dark head. I have no young specimen; but, judging from the last, I should say that the young would be as strongly tinged with saffron as the female.

♂. Bill and legs black; irides deep brown; forehead, throat, sides of nape, and vent white; the rest of the under parts dingy; head, back, and scapulars deep brown, with a wash of grey, blacker on the former; rump and upper tail-coverts light yellowish brown; wings and tail rich hair-brown, the former edged paler, the latter with the stems brownish white, and more or less white on all except the two central rectrices; white of under wing and wing-bar with a wash of pale saffron, the yellow being rather bright on some of the axillaries; wing-spot dingy yellow.

♀. Rump more of a colour with the back than in the male; upper parts lighter and browner; wing-spot bright yellow; quills edged with yellow; the light part of rectrices rather bright yellow; axillaries and wing-bar fine primrose-yellow; forehead narrow, dingy white; in other respects like the male.

Length $7\frac{2}{8}$; wing $3\frac{1}{2}$; expanse $9\frac{2}{8}$; tail $3\frac{6}{8}$.

118. *PERICROCOTUS SORDIDUS*, n. sp.

I have a bird, procured at Amoy on the 29th September, 1859, which differs from the preceding two in many respects, but yet has such intermediate characters that I have at one time felt inclined to consider it a variety of the one, and at other times of the other. After due deliberation, I have thought it best to separate it as a distinct form. My only specimen is a male, not quite mature. Upper parts greyish brown, paler on the forehead, and darker blue-grey on the head and hind neck; wings and tail hair-brown; greater wing-coverts tipped with white, but no wing-spot outwardly visible; two middle rectrices unicolorous, the rest more or less white; throat and vent white, the former tinged with brown; a black spot in front of the eye; under plumage greyish brown; a dingy white bar runs across the under wing, with a faint tinge of primrose-yellow. Length $7\frac{1}{2}$ in.; wing $3\frac{1}{2}$; tail $3\frac{7}{10}$. This may turn out to be only a more northern race of the *P. cantonensis*; but, at all events, it is extremely interesting as drawing the species closer still to *P. cine-*

reus. All these species have similar call-notes, and feed chiefly on tree-bugs (*Cimicidæ*) and their eggs, in search of which they creep and hang about among the leaves and branches of large trees, ranging the country in flocks.

119. *PERICROCOTUS SPECIOSUS*, Lath.

Phænicornis princeps, Gould.

I have only one of this species, purchased alive from a boy who was playing with it at Foochow. I have never met with it in my rambles. Its plumage is of such a dazzling red that it quite hurts the eyes to look at it, affording a strong contrast to the sober hues of the three above.

DICRURIDÆ.

120. *DICRURUS LEUCOPHÆUS*, Vieill.

General plumage light bluish grey; the eye standing in a conspicuous white cheek-patch; nasal feathers, edge of outer rectrices, shafts of quills and tail, and greater part of most of primaries black; bill and legs black; irides carmine-red. This species is, strangely enough, not mentioned in Jerdon's 'Birds of India.' It has been received from the Malayan peninsula, where it is probably only a winter visitant, and is quite a distinct bird from *D. cineraceus*, Horsf., which is a Javan species. In China it is common in summer about the Vale of Foochow, and probably extends into the interior of Central China. My specimens agree precisely with a Malacca skin in Mr. Gould's collection. Captain Blakiston procured it at Canton in September, on its southward migration, and I have procured it at Amoy on its spring return, but its summer habitat does not appear to extend south of the latitude of Foochow. It will probably be found during that season to range as far north as Ningpo, though at Shanghai it is not known.

121. *DICRURUS MACROCERCUS*, Vieillot.

Adult deep black, glossed with blue and green. Young birds dark brown, without the gloss, and mottled on the axillaries and lower parts with white. A summer visitant throughout China right up into Amoorland. Exceedingly abundant in Formosa. I have a specimen from Hankow, Central China. Appears to be the most widely spread *Dicrurus*.

A third species of *Dicrurus* visited our garden at Amoy one spring. It was much smaller than either of the foregoing, and sang most sweetly. It stayed a few days and then disappeared. Though this was many years ago, I have never seen the form since.

122. *CHIBIA HOTTENTOTTA*, L.

I have a pair shot at Amoy in the spring of 1861, and I have seen another from Tientsin (North China). We must suppose, then, that this species is a summer visitant to China, and at that season sparsely scattered throughout that land. Ours is identical with the Indian bird. The female is dingier than the male, and not so well marked.

Both carry the peculiar long bristles that, springing from the root of the bill, pass over the crown down to the back and shoulders.

123. LANIUS SCHACH (Gm.).

L. chinensis, Gray.

This Shrike throws off its young plumage at the first moult, when the male and female are similar in dress. The young is light chestnut-brown on the upper parts, mottled and barred with black; throat white, rest of lower parts pale chestnut, mottled on the breast; wings deep brown, the coverts being tipped and the tertiaries edged and tipped with chestnut-red. The black eye-mark is strongly marked, but lighter than in the adult. Of the variability of this species, and the tendency it frequently shows towards allied forms, I have before remarked in my paper on the birds of Formosa, in *The Ibis*, 1863, p. 270. The small race from India and Borneo is distinguished as *L. erythronotus*, Vigors; and *L. nigriceps* and *L. tephronotus*, both from India, are forms closely akin to ours.

124. LANIUS PHÆNICURUS, Pall.

L. lucionensis, L.

L. superciliosus, L.

L. cristatus, L.

The first of these is found in China as a summer visitant, extending to Talién (North China) and perhaps to the Amoor. In autumn large numbers pass southwards down the coast, some making for the Philippines, touching on their way at south-west Formosa. How far south of China these migrants go we do not know; but at Malacca we have another race, distinguished by its bright rufous instead of ashy head and back. In Java, the Andamans, and Ceylon, our bird again makes its appearance, but whether as a resident or a migrant history telleth not. In Hindostan the *L. cristatus* occurs in winter chiefly, being of a browner plumage, with indistinct eye-mark; this will probably be the typical *L. phœnicurus* of Pallas, finding its summer resort in Siberia. Now, can we suppose that the large numbers of these small Butchers that leave China find their way down to the southern islands, passing over the habitat of an allied race, and after spending a few months speed back the same long distance to their summer quarters? Pondering over the laws of migration, I was much puzzled in procuring at Amoy a specimen of *L. superciliosus* (the Malacca race), and shortly after a pair of the Indian form. But when I collected a large series I found the gradation from one to the other most complete. Is it possible that in their migrations they occasionally induce others of allied forms to return with them and interbreed? I cannot help thinking it far more probable that the browner Siberian bird is the typical race, from which the others have sprung, and that the rufous colouring of the ashy *L. lucionensis*, making it in some cases almost identical with Indian birds, shows merely a natural tendency to return to the typical plumage. The characters of both these forms strongly com-

bined serve to produce the Malacca race. But, at any rate, some other agent than that of climatal influence must have been at hand to work the change, in alienating forms from their pristine type and in assimilating the aliens situated under apparently such different circumstances.

I have a fourth well-marked variety, with the ashy head, but with no white on the forehead, and scarcely any eyebrow; its back is rufous-brown, like the tail. This may yet turn out to be another race peculiar to some particular area.

On its arrival in spring and autumn at Amoy, this Shrike announces itself very soon by its loud jarring note. It feeds occasionally on insects, but I think more frequently on small birds. It arrives with the majority of the Willow-Wrens, following closely at their heels and preying daily upon them. While feeding it impales its prey on thorns, as do most Shrikes. If a bird, it usually suspends it by the neck, and commences operations on the brains. It sometimes, during its visit, entertains us with a song, which is the most melodious of its kind that I have ever heard.

125. *LANIUS BUCEPHALUS*, Schleg. Faun. Japon.

I have one female, procured so far south as Amoy. It is found in Japan and North China.

126. *ARTAMUS FUSCUS*, Vieill.

Reported by Cassin to have been procured by Commodore Perry's expedition at Macao. I have never met the bird. (See Report, &c., of Perry's Japanese Expedition.)

HIRUNDINIDÆ.

127. *HIRUNDO GUTTURALIS*, Scop.

H. rustica, var. *rufa*, von Schrenck.

A summer bird throughout China as far as the Amoor. Also visits in the same season Japan and Formosa. Winters in Siam and Hindostan. Is the eastern representative of *H. rustica*, L.

128. *HIRUNDO DAURICA*, L.

H. alpestris, Pall.

Locally distributed throughout China as far as Peking. In North China only a summer visitant. In South China vagrant during winter. Represented in Japan and Formosa by larger varieties.

129. *CHELIDON LAGOPODA*, Pall.

Never procured in China, except at Tientsin. It thence ranges into Amoorland. For comparison of this eastern race with the European *C. urbica* and with *C. blakistoni* of Japan see *The Ibis*, 1863, p. 91.

130. *COTYLE RIPARIA*, L.

Procured in North China (Tientsin), where it is a summer visitant. It is noted by von Schrenck from Amoorland.

131. COTYLE SINENSIS, J. E. Gray.

Distinguished from the foregoing by its much shorter tail. Represents the form in South China and Formosa, repairing thither in summer to breed. It visits the plains of Hindostan in winter, and is said to breed there again in that season. Mr. Tristram tells me that he found the *C. riparia* breeding in Egypt in winter; and as they all disappear from that country in summer, it is not improbable that it is the same bird that visits Europe, and breeds a second time on arrival at its summer quarters.

MUSCICAPIDÆ.

132. HEMICHELIDON SIBIRICA, Gmel.

Muscicapa fuscedula, Pall.

H. fuliginosa, Hodgson.

I have only one of this very interesting species procured at Amoy. Ours is rather larger and has longer wings than the Himalayan bird, but I think is the same. It is said to range to the Amoor, and beyond to Kamtschatka. Its axillaries, under wings, and tips to greater wing-coverts are strongly rufescent, and approximate it to the following, from which it may be considered subgenerically to differ in the shape of the wing, though the several members of this group, as I have enumerated them, connect this in regular gradation with the typical *Butalis grisola*.

133. BUTALIS FERRUGINEA, Hodgson.

Butalis rufescens, Jerdon.

Hemichelidon rufilata, Swinhoe, Ibis, 1860, p. 57.

This is a summer visitant to South China. It is not very common; but every spring a few make their appearance at Canton and Amoy. It is identical with the Indian bird.

134. BUTALIS LATIROSTRIS, Raffles.

Muscicapa pondiceriana (Licht.), Midd. Sib. Reis.

M. cinereo-alba, Schleg. Faun. Japon.

Is a winter visitant to South China, from North China, the Amoorland, and Japan. It is identical with the Indian species, which is there a winter visitant, probably from Siberia, whence it is recorded as a summer bird.

135. BUTALIS GRISEICTICTA, Swinhoe, Ibis, 1861, p. 330.

Muscicapa grisola, var. *daurica*, Pall.

This links the small half-Swallow group of Fly-catchers with the spotted *Butalis*, and might with propriety be placed in either genus. It is a summer visitant to China, at which season I have found it as far north as Peking.

136. *XANTHOPYGIA LEUCOPHRYS*, Blyth, Journ. As. Soc. xvi. p. 123.

The male of this may at once be distinguished from that of the following species by its white eyebrow, which, in the other, is bright golden, by its less flammeous tints, and by its smaller size and more slender form. The female is widely different from the female of the other, if my specimen from Tientsin be correctly marked; but I suspect it is an immature male. This bird extends its summer migration as far north as Tientsin. I procured a male once at Amoy. It was originally described from the peninsula of Malacca, where I suspect it hybernates. Its migrations must be performed well inland, or we should see more of it on the coast.

137. *XANTHOPYGIA NARCISSINA*.

Muscicapa narcissina, Temm. & Schleg. Faun. Japon. (the male).

Muscicapa hylocharis, Temm. & Schleg. Faun. Japon. (the female).

Occurs at Amoy and Canton in large numbers in spring and autumn, bound apparently to Japan, where they are found in summer. The male and female are by mistake distinguished in the 'Fauna Japonica' as two distinct species. I found this to be the case on looking over the plates, and proved my suspicions to be correct by an examination of the birds in the Leyden Museum.

138. *TCHITREA PRINCIPALIS*.

Muscicapa principalis, Schleg. Faun. Jap.

Passes Canton and Amoy, on its way to and from Japan. Is found during winter in the Malacca peninsula, where it is noted as *T. atricaudata*, A. Hay. Varies a good deal in size and length of wings and tail.

139. *TCHITREA INCEI*, Gould, Birds of Asia.

Allied to *T. affinis*, from which distinguished by its smaller bill, by its green-black head and neck, and by the purpler tints of its upper parts. Combines to a certain degree the characters of *T. affinis* and *T. paradisi* with those of *T. principalis*. Mr. Whiteley of Woolwich procured several, through Mr. Fleming, from Tientsin, and one in the white plumage. Is a summer visitant to North China, from Shanghai to Tientsin. Mr. Gould's type specimen was from the former locality.

140. *MYIAGRA AZUREA*, Bodd.

Common in Formosa. A rare winter straggler to Amoy. Occurs in various parts of India and Malayana (see Jerdon's Birds of India). Is said also to occur in the Philippines.

141. *EUMYIAS MELANOPS*, Vigors.

Stoparola melanops of my Amoy list.

Of the distribution of this bird in China I know nothing. I
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never procured but one female, and that was at Amoy, in December 1857.

142. *CYANOPTILA CYANOMELÆNA* (Temm.), Pl. Col. 470 (the male).

Muscicapa gularis, Temm. Faun. Jap. (the female).

In spring and autumn these birds are very abundant about Canton and Amoy, on their way to and from North China and Japan. I do not think many, if any, stay in the south. I have seen specimens from Tientsin; and von Schrenck notes the female *M. gularis* from the Amoor. I have one specimen with very short bill; but specimens differ in the size of that organ, and in the tint of the blue on the crown. For a further account of this species, see *The Ibis*, 1861, p. 41.

143. *ERYTHROSTERNA LEUCURA* (Gm.).

Muscicapa albicilla, Pallas.

The eastern representative of *E. parva*, Bechst. It is common in North China, and is found as far north as the Amoor. In winter it migrates southwards, at which season we meet with it in Amoy and Canton. It differs from *E. parva* in having only a red patch on the throat, which does not extend down the breast. Both *E. parva* and *E. leucura* occur, I am told, in Hindostan during winter.

144. *ERYTHROSTERNA LUTEOLA*.

Muscicapa luteola (Pall.), Midd. Sib. Reis. pl. 17. f. 1-3.

M. mugimaki, Schleg. Faun. Jap.

M. erythaca, Blyth.

Muscicapa hylocharis, Swinhoe, *Ibis*, 1862, p. 305 (nec Schleg.).

The male of this species is figured in the 'Fauna Japonica' as *M. mugimaki*, and I myself have long confounded it with the preceding bird. The female, with its Robin-like plumage, and absence of white on the lateral rectrices, is the *M. erythaca* of Blyth, from Penang. I procured a female at Amoy in November 1861, and unfortunately made the already existing confusion worse by describing it in *The Ibis* as *Muscicapa hylocharis* of the 'Fauna Japonica.' Von Schrenck figures a young bird from the Amoor in mottled plumage, with the white base to tail. It is rather curious, then, that our female should have no signs of it. This bird would appear to extend over the north of Eastern Asia and Japan, repairing southwards in winter.

SYLVIIDÆ.

145. *IANTHA CYANURA*.

Lusciola cyanura, Faun. Jap.

Ianthia et *Nemura rufilata* of my former lists.

Male blue on upper parts, white-eyebrowed; white on hinder parts, with orange-coloured sides; distinguished from the Himalayan

race, *I. rufilata*, Hodgson, by the white eyebrow, which in the other is wanting. Female greenish olive on upper parts, olive buff on lower, with orange sides, blue tail-coverts, and blue-washed tail. Summers in North China, the Amoor, and Japan, and visits Amoy and South China in winter.

146. *RUTICILLA FULIGINOSA*, Vigors.

Inhabits high hill-ranges of South China, and is found in the plains during winter. Is identical with the Himalayan bird. Occurs also in Formosa.

147. *RUTICILLA AUROREA*, Pall.

Ruticilla leucoptera, Blyth.

Summer visitant to North China, the Amoor, and Japan; found in Amoy and South China in winter. Easily recognized by its conspicuous white wing-spot.

148. *PRATINCOLA FERREA*, Hodg.

Intermediate between the Chats and the Redstarts. Roams about in parties in South China during winter. Probably retires to the mountains of the interior to breed. Specimens from the Himalayas and Tenasserim are identical with ours.

149. *PRATINCOLA RUBICOLA*, var. *INDICA*, Blyth.

This is nothing more than an eastern race of *P. rubicola* of Europe, chiefly distinguished by its black, instead of white, axillaries in the adult male. My specimens vary a good deal in size and length of wing. During winter it is abundant in the South of China, but in spring betakes itself north, and in summer is found in North China, the Amoor, and Japan.

150. *CYANECULA CÆRULECULA*, Pall.

This is the red-spot Bluethroat. I have never seen it in China, except from the neighbourhood of Tientsin, where it would appear to be a rare summer straggler. It is not noticed from the Amoor or Japan.

151. *COPSYCHUS SAULARIS*, L.

The common resident Magpie-robin of South China up to Foo-chow. It does not extend so far north as Shanghai. Our bird is identical with the species prevalent in Hindostan.

152. *LARVIVORA GRACILIS*, Swinhoe, Ibis, 1861, p. 262, et P.Z.S. 1862, p. 316.

Male cyaneous on the upper parts, with black face and cheek, pure white on under parts. Female greenish olive on the upper parts, white on the lower, with buff markings on the face and sides. Young birds like the female, but with the throat and breast buff. Allied to *L. cyanea*, Hodgs., of the Himalayas.

These birds are locally distributed throughout China, from Canton to Peking. They roam about during winter, but I believe do not

regularly migrate. I found them not uncommon about Canton. I have procured them at various seasons at Amoy, and have seen them from Tientsin.

153. *LARVIVORA SIBILANS*, n. sp.

Larvivora, sp.?, Swinhoe, Ibis, 1861, p. 34.

My only specimen from Macao of this bird is a very wretched one. It may be that of a female, but I have reason to believe it an adult bird; for I watched several, and they all appeared of similar plumage. It is of a sober olive-brown, with the red tail of a Redstart, the feet of *Larvivora*, and the bill of a Robin. It was not at all uncommon about the copses and thickets near Macao in May, but extremely difficult to get at. I trust I may make the bird's better acquaintance on some future day. I have thought it worth while now to allude to it, as I consider it a good species.

154. *CALLIOPE KAMTSCHATKENSIS*, Gm.

Male with fine crimson throat. Females with throat whitish, and without the white and black that ornaments the face of the male. When passing our coast in spring, the young males are found returning without having acquired the adult tints, usually only a few reddish feathers appearing on the throat; but the change of hue (not moult) goes on very rapidly, and probably would be perfected by the time of their arrival at their northern destination. The young males can be readily distinguished from the females by their much whiter throats and darker lores. These birds touch at Amoy in their northward migrations in April; I would hence infer that they had been a long way south for their winter. Their summer range is all through North China, Mantchuria, as far as Kamtschatka. I found them at Pekin in October; but they were young birds, and might have been late in their southward migrations. They occur abundantly, I am told, during winter in Hindostan. These would be birds from the Siberian region. Our northern migrants would be expected to winter in Siam and the Malayan peninsula, whence, I believe, specimens have been received. In form these birds are intermediate between the Robins and the Reed-warblers.

155. *TRIBURA SQUAMEICEPS*, n. sp.

Allied to *Tribura luteiventris*, Hodgs., from Nepal. I have only one specimen, procured by Captain Blakiston at Canton. Upper parts rich brown, with a tint of chestnut and olive, the former strongest on the head and wings. A well-defined cream-coloured eyebrow runs over the eye. The feathers of the head edged darker, giving the appearance of scales; under parts white, with an occasional tinge of buff; axillaries and flanks olive-brown; wing 2.1, short and rounded, the fourth quill being the longest, the third and fifth $\frac{1}{12}$ th shorter, and nearly equal. The specimen is unfortunately tailless, and I therefore cannot give a very detailed description of it.

156. *LOCUSTELLA HENDERSONII*, Cassin, Proc. Phil. Acad. Sciences, 1858, p. 194.

L. macropus, Swinhoe, P. Z. S. 1863, p. 93.

Allied to *Sylvia locustella*, L., of Europe, but with conspicuously larger feet. I have only procured it in South China in summer. If ours is the same as that spoken of by von Schrenck as occurring in Amoorland in May, the summer resort of our bird will be of vast extent, and it will probably be the same species found in Siberia, and reported visiting the plains of Hindostan in winter. The bird from Hakodadi (Japan), described by Cassin, would appear to be identical with the *Locustella* from Amoorland and this species.

157. *LOCUSTELLA MINUTA*, Swinhoe, P. Z. S. 1863, p. 93.

A diminutive species resident in South China, procured at Amoy and Canton.

158. *LOCUSTELLA OCHOTENSIS*, Middendorff, Sib. Reis.

With stronger legs and feet than most species of this genus. Von Schrenck considers it the same as *L. certhiola*, Pall.; but that is a larger and distinct bird, with apparently a more western range through Siberia. This is a summer visitant to North China, the Amoor, and Japan. In South China it has occurred only in winter.

159. *CALAMODYTA SORGHOPHILA*, Swinhoe, P.Z.S. 1863, p. 92.

The eastern representative of *C. phragmitis* of Europe. I procured one specimen on the 20th of May at Amoy. It would appear to be a summer visitant to the South of China. No Sedgewarbler is noted from the Amoor.

160. *CALAMOHERPE BISTRIGICEPS*, Swinhoe, Ibis, 1860, p. 51.

Calamodyta maackii, von Schrenck, Amurland.

I first procured this bird on the 25th of October 1856, and described it in The Ibis for January 1860. The same species appears to have been brought from Amoorland by M. Maack, and styled by von Schrenck *maackii*, after its discoverer, also in 1860, but subsequently to the publication of my name, which will hence have to be adopted. I have three specimens, all from the neighbourhood of Amoy. It is in South China a winter bird, returning to the north in summer.

161. *CALAMOHERPE ORIENTALIS*, Bp.

Salicaria turdina orientalis, Temm. & Schleg. Faun. Jap.

Acrocephalus magnirostris, Swinhoe, Ibis, ii. p. 51.

Ranges in China, from Canton to Shanghai, as a summer bird. In the extreme south a few stay all the year. Found in summer also in Formosa and Japan. Is the eastern representative of the European *C. turdoides*.

162. *CALAMOHERPE FUMIGATA*, Swinhoe, P. Z. S. 1863, p. 91.

Lusciola caligata, Licht. (*Motacilla salicaria*, Pall.)?

A summer visitant to South China. Abundant on the Island of Amoy for a few days in the middle of May.

163. CALAMOHERPE AËDON.

Turdus aëdon, Pallas.

Arundinax olivaceus, Blyth.

I have a specimen from the Andamans presented to me by Mr. Blyth, and another from Tientsin, both precisely identical. It is figured by von Schrenck from the Amoor. I have not yet met with it in South China. It summers in Siberia, North China, and Amoorland, and winters in Hindostan, probably extending during that season along the Malayan peninsula and into the Andamans.

164. CALAMOHERPE CANTILLANS.

Salicaria cantillans, Temm. & Schleg. Faun. Jap.

One specimen procured by Mr. Fleming at Tientsin. It would appear to replace in North China and Japan the following species of the south.

165. CALAMOHERPE MINUTA.

Arundinax minutus, Swinhoe, Ibis, 1860, p. 52.

This bird arrives from the south to spend the summer in South China. A few, however, occur all the year. It is a curious diminutive of the following, though entirely distinct in manners and song.

166. CALAMOHERPE CANTURIANS.

Arundinax canturians, Swinhoe, Ibis, 1860, p. 52.

Abundant from Canton to Shanghai, and in Formosa. A southwardly migration takes place in winter, but numbers stay all through the year. As the *C. cantillans* replaces the *C. minuta* north of Shanghai, so I suspect the *C. cantans* of Japan replaces this species in that region.

167. DRYMÆCA EXTENSICAUDA, Swinhoe, Ibis, 1860, p. 50.

Female smaller than male, with shorter tail. Winter plumage more strongly tinted with buff than summer. Bill in winter light-coloured, in summer black. For notes on the habits of this bird, see my different lists in The Ibis. Found as a constant resident in South China, from Amoy to Foochow; also in Formosa.

168. PRINIA SONITANS, Swinhoe, Ibis, 1860, p. 50.

A resident in South China, from Canton to Foochow; also in Formosa.

169. ORTHOTOMUS PHYLLORRHAPHEUS, Swinhoe, Ibis, 1860, p. 49.

An abundant resident in South China, from Canton to Foochow. The male acquires long central tail-feathers in spring.

170. *CISTICOLA SCHÆNICOLA*, Bp.*C. cursitans*, Franklin.*C. brunneicephala*, Temm. & Schleg. Faun. Jap.*C. tintinnabulans*, Swinhoe.

Common at Shanghai in summer, extending its range to Peking. The majority from the north wend southwards, and pass the winter in South China, at which season only I have found it near Amoy. In south-west Formosa it is resident. It has also been noted from Japan, but not from the Amoor. I have, in company with Mr. Tristram, compared Chinese, Formosan, and Indian examples with European specimens, and can note no tangible differences.

171. *PHYLLOPNEUSTE FUSCATA*.*Phylloscopus fuscatus*, Blyth, J. A. S. xi. p. 113; xii. p. 965.*Phyllopneuste sibirica*, Middendorff, Sib. Reise, ii. tab. 16.

Summers in Siberia, North China, and Amoorland, and winters in South China and the plains of Hindostan. A few, I suspect, stay all the year in South China. It varies much in size and length of wing. I have one very large specimen from Amoy, evidently only an individual variety.

172. *PHYLLOPNEUSTE TENELLIPES*.*Phylloscopus tenellipes*, Swinhoe, Ibis, 1860, p. 53.

Found about Amoy and South China during winter; probably winters in North China, but has not yet been noted thence, nor yet from the Amoor. I have three specimens from Amoy. Length 4.4; wing 2.3; tail 1.9. Bill brown, paler at edges, tip, and base of gonyes; inside of mouth light yellow. Legs and claws pale flesh-colour. This is one of the most distinct species of this group, and in colouring holds a place between the foregoing brown bird and the greener forms.

173. *PHYLLOPNEUSTE SYLVICULTRIX*.*Phylloscopus sylvicultrix*, Swinhoe, Ibis, 1860, p. 53.*P. javanica* (Horsf.), Blasius, Ibis, 1862, p. 69?

I have nearly 200 examples of this species from Amoy, which differ in general size, in the length and bulk of the bill, in the length of the wings and of the first primary, and in the tints of the tarse. Were two of the extreme forms taken separately, some naturalists would be inclined to set them down as distinct species; but with my large series of every intermediate grade and form before me, the special points of distinction disappear, and one cannot help avowing them all to be the same. In this view Mr. Tristram, who has kindly examined them with me, entirely concurs. All the Chinese forms of *Phyllopneuste*, with the exception of the *P. fuscata*, show more or less yellowish spots on the wing—a distinction which does not appear to be shared by any of the European forms. In this character the wings of our birds show some affinity to the well-banded wing of the *Reguloides* group, to which they further approximate in the shape of their tails.

P. sylvicultrix visits Amoy in large numbers during its autumnal and vernal migrations. It probably summers in the interior of China and about Ningpo and Shanghai. I have procured it in autumn in south-west Formosa, and I have reason to believe it winters in the Philippines. Its great destroyer is the *Lanius lucionensis*, Strickl., which migrates about the same time, passing Amoy in immense numbers, and crossing over to the Philippines *viâ* south-west Formosa. Professor Schlegel showed me some Willow-wrens, I think from Halmahein, which seemed identical with Chinese examples of this bird. These would doubtless be the same that Professor Blasius refers to as *P. javanica*, Horsf. (see *Ibis*, 1862, p. 69). The type specimen of Horsfield's *Sylvia javanica* in the East India Museum is, however, a *Zosterops*, as demonstrated by Mr. Blyth and others years ago. It is not at all improbable that our *P. sylvicultrix* spreads in winter throughout the Malayan Islands. The various Chinese species of *Phyllopneuste*, with the exception of *P. fuscata*, Mr. Blyth and I have ascertained by actual comparison to be quite distinct from those found in India.

174. PHYLLOPNEUSTE XANTHODRYAS, n. sp.

♂, shot at Amoy on the 23rd of April 1861. Length 5·5; wing 2·9; tail 2·3. First primary pointed, ·65; second ·4, shorter than the third, which is nearly of a length with the fourth and fifth. Bill blackish brown on the upper mandible; edge of ditto, tip, and lower mandible yellow-ochre, rather dingy on the latter. Inside of mouth light orange-yellow. Eyelid light black. Legs and claws pale brown, with a tinge of yellow on the feet and claws.

♀, shot on the 20th of May, at Amoy. Length 5·4; wing 2·7; tail 2·2. Bill and gape less yellow than before, the former browner. Legs light sienna-yellow, tinged with brown.

This is the largest *Phyllopneuste* I have met with in China. It approaches *P. coronata* nearest in size of bill, but has no coronal stripe, and the under parts are much yellower. From *P. sylvicultrix* it is easily recognized by its much superior size, its yellow under parts, its more robust claws, the larger size of the first primary, and the greater difference between the second and third.

The gizzard of one dissected was round, compressed on the sides, with a large circular tendon on each side. It was lined internally with a thick rugous epithelium, and contained remains of flies.

This species may, I think, be considered as a summer visitant to Central China from the south, passing Amoy *en route*.

175. PHYLLOPNEUSTE PLUMBEITARSA.

Phylloscopus plumbeitarsus, Swinhoe, *Ibis*, 1861, p. 330.

Phyllopneuste rufa, von Schrenck, Amurland.

P. borealis, Blasius, *Ibis*, 1862, p. 69?

I have only one specimen of this bird, procured near Peking in October, which I take to be an individual migrating southwards from its summer quarters in Amoorland. From that region von Schrenck

gives *P. rufa*; and, from its approach to that species, the bird mentioned by that authority would naturally be our species. But from *P. rufa* ours is at once distinguishable by its short thicker bill, and by the yellowish tips to its lesser and greater wing-coverts. In the shape of its bill, ours has more affinity with *P. evermanni* of Siberia, figured in Middendorff, Sib. Reis., but differs also from that in its yellowish wing-markings.

176. PHYLLOPNEUSTE CORONATA.

Ficedula coronata, Temm. & Schleg. Faun. Jap.

This is a summer visitant to North China and Japan, repairing in winter to South China, at which latter season it occurs at Amoy. *Reguloides trochiloides*, Sundevall, is a closely allied species from India, but is smaller, has a smaller bill, and brighter yellow tips to wing-coverts. It is the representative race of our species in more Western Asia, and ought perhaps, with ours, rather to be included in this genus than among the pseudo-Goldcrests.

177. REGULOIDES SUPERCILIOSUS (Gm.).

Regulus modestus, Gould.

Summers in North China and Japan, and is abundant during the cold season throughout Southern China and Formosa. It is then also said to occur in the plains of Hindostan. The bird shot by Mr. J. Hancock, of Newcastle, on the coast of Yorkshire I have lately had the privilege of examining, and find to be identical with my Chinese examples.

178. REGULOIDES PROREGULUS, Pall.

A summer visitant to North China, and a winter visitant to South China. Recognized at once from the foregoing by its yellow rump-band. I have procured this, as well as the last, near Peking in September; and I hence infer that this also ranges into the Amoor territory, and has been confounded by von Schrenck with the above.

ZOSTEROPIDÆ.

179. ZOSTEROPS SIMPLEX, Swinhoe, P. Z. S. 1862, p. 317, et Ibis, 1863, p. 294.

This species ranges in China, from Canton to Foochow, and perhaps a little higher, but not to Shanghai, where it is replaced by the following. In Formosa it is also an abundant resident. On its nesting and habits I have already written much in The Ibis, and therefore will not here repeat my remarks. It has its nearest ally in the *Z. palpebrosa* of India, being, like it, light grey on the under parts. An occasional specimen or two, however, may be picked out of my Amoy series with a tinge of chestnut-brown on the under parts, showing the tendency of the species towards the Japanese *Z. japonica*. Some have the belly deeper grey than others. The yellow on the throat and

vent varies in intensity, as also does the green of the upper parts; but these are chiefly distinctions of sex or age. I have one pale (almost yellow) variety, procured by Captain Blakiston at Canton. All the adults have the black lore and eye-line, shown also in the following and in many of this group. I have specimens from Hongkong, Macao, Canton, Amoy, Foochow, and Formosa, and they all agree in essential characters.

180. *ZOSTEROPS EYTHROPLEURA*, Swinhoe, P. Z. S. 1863, p. 204.

This species, which extends from Shanghai to Tientsin and the Amoor, I had confounded with the *Z. japonica* of the 'Fauna Japonica,' until lately, when, on a visit to M. Jules Verreaux at Paris, I had the pleasure of examining for the first time a Japanese specimen, and of comparing it with North China skins. The difference in the two birds is striking. The under parts of *Z. japonica* are a dull light brownish chestnut, while the flanks of this species are a deep rusty chestnut. This bird is larger and longer-winged than our South-China species, but is exceeded in both by the Japanese. I have examined two specimens from Shanghai from M. Jules Verreaux's collection, and one from Tientsin. The two former are much brighter on the flanks than the latter; but as they are both males, and our Tientsin bird is a female, the difference may be only a sexual one, and not one of locality. What could have induced von Schrenck to confuse this species with the *Z. chloronota*, Gould, of Australia, I cannot understand. The shape of the bill and head of this last, as well as the dull sordid colour of the plumage, show at once a marked difference from the Chinese bird. Indeed there are many species from Asia and Africa far more closely allied to our species than is the *Z. chloronota*. As I have never met with the North China species alive, except as a cage-bird, I have nothing special to relate regarding its habits.

AMPELIDÆ.

181. *LIOTHRIX LUTEA*.

Sylvia lutea, Scopoli.

Tanagra sinensis, Gmel.

Parus furcatus, Temm.

Often seen alive in cages at Canton. Is said to be brought from the interior. I never met with it in a wild state.

182. *AMPELIS GARRULA*, L.

Occasionally met with in North China during winter.

FRINGILLIDÆ.

183. *FRINGILLA MONTIFRINGILLA*, L.

Met with in North China during winter. Summers in Amoorland. Captain Blakiston killed one out of a small party at Shanghai in January.

184. *ÆGIOTHUS LINARIUS*, L.185. *ÆGIOTHUS CANESCENS*, Gould.

Both these species come down into North China from Amoorland and the north during winter.

186. *CHRYSOMITRIS SPINUS*, L.

Comes down from the north in winter, as far south as Foochow.

187. *CHLOROSPIZA SINICA*, L.

Fringilla kawariba minor, Temm. & Schleg. Faun. Jap.

Common throughout China, from Canton to Peking, at all seasons. A larger race occurs in some parts of Japan, while in others its place is said to be supplied by this bird.

188. *CARPODACUS ERYTHRINUS*, Pall.

Procured at Tientsin. Is said to be taken occasionally near Canton during winter.

189. *COCCOTHAUSTES MELANURUS*, Gmel.

A common resident bird from Canton to Shanghai. I have not traced it further north. Is replaced in Japan by a near species, *C. personatus*.

190. *COCCOTHAUSTES VULGARIS*, Ray.

Found in Amoorland, about Peking, and at Japan. I have not discovered it in the more southerly part of China.

191. *LOXIA CURVIROSTRA*, L.

A winter visitant to North China. Is found in Amoorland, where *L. leucoptera* is said also to occur. Brought from Hakodadi, North Japan.

192. *MUNIA ORYZIVORA*, L.

Found about Canton, and occasionally near Amoy. A South-China bird, extending to the Straits of Malacca and Java.

193. *MUNIA TOPELA*, Swinhoe, Ibis, 1863, p. 90.

A common resident from Canton to Foochow, and in Formosa.

194. *MUNIA ACUTICAUDA*, Hodgs.

An abundant resident from Canton to Shanghai, and in Formosa. Is domesticated in Japan, where it also probably occurs in a wild state, though it has not been noted from there.

195. *PASSER MONTANUS*, L.

The common House-Sparrow throughout China, the Amoor, Formosa, and Japan.

196. *PASSER RUSSATUS*, Temm. & Schleg. Faun. Jap.

The Tree-Sparrow of China, Japan, and Formosa. The female

of this species presents a plumage like that of the female *P. domesticus*, L.

197. *EUSPIZA RUTILA* (Pall.); Bp. Consp. Av. p. 469.

Found in Siberia, Amoorland, and Japan. A few wend their way southwards in winter. I have procured it at Amoy, where it is extremely scarce.

198. *EUSPIZA AUREOLA* (Pall.); Bp. Consp. Av. p. 468.

Summers in North China, Amoorland, and Japan, and winters in South China, and plentifully in Burmah. Abundant about Canton and Amoy during the cool season. Known to Europeans in China as the "Canton Ortolan."

199. *EUSPIZA SULPHURATA*.

Emberiza sulphurata, Temm. & Schleg. Faun. Jap.

Summers in Japan, and winters in South China. Numbers touch Amoy on the northward migration in April. Has not been noted either from North China or the Amoor. In Sir William Jardine's 'Life and Memoirs of Mr. Hugh Strickland,' a bird is described and figured as *Euspiza cinerea* from Smyrna, which looks much like a larger representative race of this species.

200. *MELOPHUS MELANICTERUS* (Gmel.); Bp. Consp. Av. p. 470.

Abundant at all seasons about Canton, Macao, and Amoy, extending upwards to Foochow, but I do not think much further north.

201. *EMBERIZA PITYORNIS* (Pall.); Bp. Consp. Av. p. 466.

Siberia, North China, and the Amoor. I met with it at Peking in October.

202. *EMBERIZA SPODOCEPHALA*, Pall.

E. personata, Temm.

E. melanops, Blyth.

I have a large series of this bird, all shot at Amoy, in various stages of plumage, answering to the three so-called species. The entire grey head and neck, and black round the bill, are put on by the male in full plumage; and the yellow tints of the under parts vary in hue and intensity. Von Schrenck notices the two first from Amoorland as distinct species; and Mr. Blyth has described the third as an occasional straggler in North-eastern India. In winter it visits the south of China in large numbers, returning on the approach of summer to North China, the Amoor, and Japan.

203. *EMBERIZA CIOPSIS*, Bp.

E. cioides, Temm. & Schleg. Faun. Jap.

This species is found in North China, Amoorland, and Japan. It is a winter visitant to South China.

204. *EMBERIZA RUSTICA* (Pall.); Bp. Consp. Av. p. 466.
North China, the Amoor, and Japan. Not yet met with in South China.
205. *EMBERIZA FUCATA* (Pall.); Bp. Consp. Av. p. 464.
Winters in South China. Found in summer in North China and Japan.
206. *EMBERIZA STRACHEYI* (Moore); Swinhoe, Ibis, 1863, p. 9.
Procured at Tientsin (Fleming), and at Kumaon (Strachey). Nothing is known of its movements or distribution.
207. *EMBERIZA CHRYSOPHRYS* (Pall.); Bp. Consp. Av. p. 464.
Siberia, and probably Western China. I procured a specimen near Peking in September.
208. *EMBERIZA CANESCENS*, Swinhoe, Ibis, 1860, p. 62.
Occurs in South China in winter only; probably retires to North China to breed.
209. *EMBERIZA PUSILLA* (Pall.); Bp. Consp. Av. p. 464.
Abundant in North China near Peking, some visiting South China in winter. Found also in Amoorland.
210. *SCHÆNICOLA PASSERINA*, var. β , Pall. Zoogr. Ross. Asiat. ii. 48, 49.
Emberiza schœniclus, var. *minor*, Midd. Sib. Reise.
E. polaris, Midd.?
Amoorland and North Japan. It is doubtless also a North-Chinese bird.
211. *PLECTROPHANES NIVALIS*, L.
Visits North China in the cold weather.
212. *CENTROPHANES LAPPONICA*, L.
Abundant near Peking in winter.

STURNIDÆ.

213. *STURNUS VULGARIS*, L.
I include this bird in my Chinese list on the authority of a specimen in the British Museum, said to have been brought by Mr. Reeves from Canton. I have never met with the bird.
214. *STURNUS CINERACEUS*, Temm. & Schleg. Faun. Jap.
Summers in Japan and North China to the Amoor. Visits South China in large flocks during winter.
215. *STURNUS SERICEUS*, Gmel.
A resident species from Canton to Shanghai, extending probably

further north. In winter assembles in large flocks and ranges about the country, often associating with the foregoing.

216. HETÆRORNIS SINENSIS.

Oriolus sinensis, Gmel.

O. buffonianus, Shaw.

Pastor turdiformis, Wagl.

Sturnia cana, Blyth.

Arrives in large numbers in spring in South China, frequenting houses, and building in the holes of their roofs. It stays the summer, and then disappears. It is in that season very common from Canton to a little above Amoy, not extending so far north as Foochow. Its winter migration appears to extend into Pegu, whence identical specimens have been received. All the species of this genus become strongly tinged in the breeding-season with a rusty buff, very bright in parts. In the autumn the moult takes place, when the feathers resume their natural colour. What is the cause of this tint I cannot divine; but, to show how strong it is, Mr. Blyth named the species from the Nicobars *H. erythropygus*, from its red rump. The next specimen he procured was later in the season, and the red-tinged parts had moulted into their natural white colours. This tinge is perhaps analogous to that of the breast of *Gypaëtus barbatus*, of the Teal, and of several other birds. In our bird it is too generally diffused to suppose that it has been rubbed on extraneously. It comes doubtless from the body of the bird, and must owe its origin to some constitutional peculiarity.

217. HETÆRORNIS DAURICUS.

Sturnus dauricus, Pall.

Turdus dominicanus, Gm.

Pastor malayensis, Eyton.

Found in North China and Amoorland in summer; its southward migration would appear to extend into Hindostan, the Malayan peninsula, and Java, whence specimens have been received. It does not appear to travel down the Chinese coast to its winter destination, or we should have met with it in South China, which we never have. It probably takes an inland route through Daouria, whence Pallas obtained and described his type specimens.

This species is replaced in Japan by the little *H. pyrrhogenys*, Müll. (*Lamprotornis pyrrhopogon*, Schleg. Faun. Jap.), which is there a summer visitant only, being found during the winter in the Philippines, whence I have received skins. I naturally expected to find it touching on its travels at Formosa, but did not; nor have I ever come across it on the Chinese coast. I may here remark that a specimen of this bird sent to Mr. Blyth was described by him as a new species, under the name *Calornis albifrons*.

218. ACRIDOTHERES CRISTATELLUS, L.

Found in China as a resident species, from Canton to Shanghai.

Abundant also in Formosa. Is found also in the Philippines, whither it is said to have been conveyed originally for the destruction of locusts. The members of this genus are closely allied, but very local in their distribution. Great confusion exists in their nomenclature; but the description of Linnæus doubtless refers to the Chinese Starling so called, though he describes it as a bird from Bengal.

There is quite a peculiar species in Siam, which I have received from Sir Robert Schomburgk, H. M. Consul at Bangkok. This in coloration is a good deal similar to the Chinese bird, but has the bill a bright yellow, instead of light lemon-colour; its vent is pure white, instead of black tipped with white; its nasal crest is much smaller, and the pointed feathers on its crown much longer, than in ours; its rectrices are, moreover, much more largely tipped with white. In size and other respects the two nearly agree. For this I would now propose the name *A. siamensis*.

219. GRACUPICA NIGRICOLLIS.

Gracula nigricollis, Paykull.

Pastor bicolor, Gr.

Pastor temporalis, Wagl.

Sturnus temporalis, Blyth.

Gracula melanoleuca, Sonnerat.

Gracupica melanoleuca, Less.

A resident species in South China, from Canton to Foochow; extends in its distribution as far south as Siam. Its bare cheeks, when alive, are bright yellow, and not red as stated in Bp. Consp. Av. p. 421. The immature bird has the head and neck light brown, and its general colours are much lighter than in the adult.

CORVIDÆ.

220. PICA CAUDATA, Ray, var. *media*.

P. media, Blyth.

P. sericea, Gould.

The Magpie is an abundant resident throughout China, Amoorland, Kamtschatka, Japan, and Formosa. On specimens procured from these different regions two additional species have been created, founded on the variation of the length of wing and expansion of alar white,—*P. japonica*, Bp., and *P. media*, Blyth. My specimen from Pekin seems entirely to agree with British skins; but the majority of those from Amoy differ in the tints of the tail, and in having much less white on the quills. I have, however, from that locality one which is identical with the Pekin bird. On examining nestlings and young birds, I find that the alar white is again much less; and, on carefully comparing my large series of Amoy skins, I find great variation in length of wing, in the tints of the tail, and in the size of the white band on the rump, this last, in some, being scarcely visible. I therefore cannot help reducing the so-called species again into the original one; for, as the Magpie is not a migratory bird, one can scarcely suppose that the true Pekin race would oc-

asionally find its way down to Amoy, a distance of over 1000 miles. We might, perhaps, regard the South-China bird as a race of itself, with a frequent tendency to revert to the typical form.

The tail of *P. caudata* from Holland and England is very much bronzed, much more so than that of the Pekin bird, but in no greater degree differing than does the Pekin bird and one from Amoy from the majority of those from that locality. The tail of *P. numidica* is similarly different from that of the English bird; and, on analogy, it is therefore not improbable that the Amoor bird would more nearly approach the Dutch and English in brightness.

221. *CYANOPICA CYANEA*, Pall.

Pica melanocephalos, Wagl.

Abundant from Shanghai to Pekin, thence into Amoorland and Japan. A resident species. I have not been able to recognize two distinct species in these, as is done by Bonaparte in his *Conspectus*, p. 382.

222. *UROCISSA SINENSIS*, L.

A resident species on all the wooded hills from Canton to Ningpo, represented in Formosa by another species, the *U. cærulea*, Gould. The male has a much larger bill than the female, of a uniform orange-red, and not tipped, like hers, on the apical culmen with black. The young bird has a brownish-yellow bill, brown legs and irides. Crown of head pale grey; nasal feathers, cheeks, and sides of neck light black, lighter on the under neck, and nearly grey on the throat. The rest of the plumage paler and duskier than in the adult.

This species was procured by Captain Blakiston near Ichang, 1100 miles up the Yangtze; so that its range would appear to extend throughout entire Southern China.

223. *DENDROCITTA SINENSIS*, Lath.

Said to inhabit the mountains of South China.

224. *GARRULUS SINENSIS*, Gould.

Very closely allied to *G. bispecularis*, Gould, of the Himalayas. Ranges in China from Canton to Ningpo. Further north, it is represented by another species, of which I have no specimens, but which I believe to be the *G. brandtii*, Eversm., a bird found also in Amoorland, and lately procured in Hakodadi, North Japan, by Capt. Blakiston. South Japan produces an ally of *G. glandarius*, in *G. japonicus*, Schleg., and Formosa a diminutive ally of *G. sinensis*, in *G. insularis*, Gould.

225. *LYCOS DAURICUS*.

Corvus dauricus (Pall.), Faun. Japon. t. 41.

Abundant about Pekin, thence ranging north into Amoorland, and west into Siberia. I have not traced it further south into China, It also occurs in Japan.

226. *LYCOS NEGLECTUS*.

Corvus (Monedula) neglectus, Temm. & Schleg. Faun. Japon.

This has the same range as the above, and is much more closely allied to the true *L. monedula*. I have unfortunately no specimens.

227. *CORVUS TORQUATUS*, Less.

C. pectoralis, Gould.

A resident species in China, from Canton to Peking. The only species of Crow at Amoy. The male and female do not appear to differ much in size of bill.

228. *CORVUS SINENSIS*, Gould.

C. corone of Temm. & Schleg. and von Schrenck.

I have four specimens of this bird—a female from Peking, an immature male from Foochow, and a male and female from Swatow. The northern birds are larger than the southern, but in essential characters they are the same. The distinctness of the Chinese bird from *C. corone* of Europe Mr. Tristram agrees with me in considering undoubted; and it is hard to understand how, after a comparison, they could ever have been united. *C. sinensis* has a bill more allied to that of the Ravens than to the Jackdaw-like bill of *C. corone*. The bill of the male *C. sinensis* is about one-third bulkier than that of its female, which is about the same proportion larger than that of the male *C. corone*; that organ is, moreover, well culminated, like that of *C. culminatus* of India. Apart from the bill, however, there are numerous other satisfactory distinctions. The whole plumage of *C. sinensis*, except the scapulars, coverts, and secondary-edges, is washed with a green bronze, which in *C. corone* is purplish, and the feathers of the throat and under neck are lanceolate; the latter marked distinction will enable the most superficial observer to distinguish them. The Chinese is, besides, a good deal larger in size and in length of wing. *C. culminatus* has a very similar bill to the Chinese bird. In size, it appears to more nearly equal the European species, and in shades of plumage to be intermediate between it and the Chinese, but it likewise wants the strongly acuminate throat-feathers of *C. sinensis*. The specimens of *C. culminatus* that I have had for comparison are from Calcutta and the Andaman Islands. I have also *C. macrorhynchus*, Temm., and *C. enca*, Horsf., both from Java, sent me by Prof. Schlegel. These are long-billed species, the former being nearly double the size of the latter.

229. *CORVUS JAPONENSIS*, Bp.

C. macrorhynchus, Schleg.; Bp. Consp. Av. p. 386.

North China, Amoorland, and Japan.

230. *CORVUS PASTINATOR*, Gould.

C. frugilegus of Temm. & Schleg. and von Schrenck.

An abundant resident from Shanghai to Peking; extends into Amoorland and Japan. Mr. Tristram agrees with me in consider-

ing Mr. Gould right in separating this bird from the European Rook; in size they are very similar. The Chinese bird is, however, at once distinguishable by the whole of its head being glossed with purple like the back, the European Rook having the head and face glossed with blue-black. But the greatest distinction is in the peculiar black-feathered throat and chin, these parts in *C. frugilegus* being quite bare. My specimen was procured in October, at Peking, and, being in mature plumage, must be over a year old at the least. More specimens are required to determine whether the throat ever does get bare, like the base of the bill, with advancing age; but if this character fail, the different tints of the head will be sufficient to establish the Chinese bird as a distinct race of Rook.

231. *NUCIFRAGA CARYOCATACTES*, L.

Said to occur in North China. Reported from Amoorland and Japan.

232. *FREGILUS GRACULUS*, L.

North China; procured near Tientsin. Not noted from Amoorland or Japan.

COLUMBIDÆ.

233. *COLUMBA RUPESTRIS*, Bp. Consp. Av. ii. p. 48.

C. leucozonura, Swinhoe, Ibis, 1861, p. 259.

Common about the rocky shores of China in the extreme north, and rocky coast of Mantchuria.

234. *TURTUR RUPICOLA* (Pall.); Bp. Consp. Av. ii. p. 60.

Found in North China, the Amoor, and Japan. A winter visitant to South China and Formosa.

235. *TURTUR CHINENSIS* (Scop.); Bp. Consp. Av. ii. p. 63.

A resident species from Canton to Shanghai, and at Formosa.

236. *TURTUR HUMILIS* (Temm); Bp. Consp. Av. ii. p. 66.

A summer visitant to South China, ranging in that season as far north as Shanghai and into Formosa.

GALLINÆ.

237. *SYRRHAPTES PARADOXUS*, Pall.

Abundant about the plains of Peking and Tientsin during winter. Roams about the country in immense flocks, flying in figures, as do Plovers and most sea-birds.

238. *CROSSOPTILON MANTCHURICUM*, Swinhoe, P. Z. S. 1862, p. 287.

One specimen procured through Dr. Lamprey at Tientsin. Said to have come from Mantchuria.

239. PHASIANUS TORQUATUS, Gmel.

Found throughout China, up into Amoorland.

240. PHASIANUS REEVESII, J. E. Gray.

Central China and borders of Mongolia.

241. THAUMALEA PICTA, L.

China bordering on Thibet and Mongolia.

242. THAUMALEA AMHERSTIÆ (Leadb.).

China bordering on Eastern Thibet.

243. EUPLOCAMUS NYCTHEMERUS, L.

Nycthemerus argentatus, Swainson.

Wooded mountain-country of Southern China.

244. POLYPLECTRON CHINQUIS (Temm.); Blyth's Cat. p. 241.

Specimens in the British Museum from Mr. Reeves, said to have been procured in Southern China.

245. CERIORNIS TEMMINCKII.

Satyra temminckii, Gray.

In British Museum, from Reeves. China.

246. CERIORNIS CABOTI, Gould, Birds of Asia, pt. x.

Said to have been procured in Southern China.

247. FRANCOLINUS SINENSIS.

Tetrao sinensis, Osbeck.

T. perlatus, Gmelin.

T. pintadeus, Scopoli.

T. madagascariensis, Gmel.

A non-perching Francolin, found on the hills of Southern China. Usually met with single, and difficult to flush. Has been introduced into the Mauritius. Male spurred; female with only a wart.

248. BAMBUSICOLA THORACICA.

Perdix thoracica, Temm.

P. sphenura, J. E. Gray, Zool. Misc. no. 1, p. 2.

Male spurred; female with only a wart. For remarks on this and its allied Formosan representative, see *The Ibis*, 1863, p. 399.

249. PERDIX BARBATA, J. Verreaux, P. Z. S. 1863, p. 62, Pl. IX.

Brought to the Tientsin market from the plains adjoining Eastern Siberia. Mentioned by Pallas as a variety of *P. cinerea* inhabiting Dauria. Procured by Middendorff in the Barabá Steppe, and noted by him in his 'Sib. Reise' as *P. cinerea*.

250. COTURNIX COMMUNIS, Bonnatere.

Tetrao coturnix, L.*C. dactylisonans*, Temm.

Found throughout China, in the north as a summer bird, in the south chiefly as a winter visitant, though many stay to breed. I have procured their eggs at Amoy. It is found also at Japan and in Formosa, but is not noted from the Amoor.

251. EXCALFACTORIA CHINENSIS.

Tetrao chinensis, L.

Has a wide range throughout Southern Asia and its islands to Australia. Found in Southern China and Formosa, and has been introduced into the Mauritius.

252. TURNIX MACULOSA, Temm.

Occurs sparsely throughout China from Canton to Peking; and I suspect also in Formosa, though I did not procure specimens. Mr. Blyth considers the Chinese race the same as that from Burmah, which he has lately described as *T. blanfordi* (Journ. As. Soc. Beng. 1863, p. 8). He says it holds the same relationship to *T. dussumieri*, Temm., of India, that the *T. sykesi* of India holds to the *T. andalusica* of S. Europe and N. Africa.

253. TURNIX OCELLATA.

Oriolus ocellatus, Scop.*Tetrao luzoniensis*, Gmel.*Hemipodius thoracicus*, Temm.

Inhabits Southern Asia and its archipelago, to the Philippines. Occurs also in Southern China and Formosa.

GRALLÆ.

254. OTIS TARDA, L.

We frequently hear in China of Bustards, though I have never met any. They are brought to the Tientsin market from the neighbouring plains, and through the kindness of Dr. Lamprey I have been enabled to procure a sternum. This agrees entirely with that of the European Bustard, which is also noted from the Amoor. In South China probably other species occur.

255. GRUS CINEREA, L.

G. cinerea longirostris, Faun. Jap.

North China to Amoorland and Japan. Visits South China in winter in large flocks, frequenting cultivated fields, and feeding on sweet potatoes (*Batatas edulis*).

256. GRUS LEUCOGERANOS, Pall.

North China, Amoorland, and Japan.

257. GRUS VIRIDIROSTRIS, Vieill.

Antigone montignesia, Bp. Consp. Av. p. 100.

North China and Japan. Frequently seen in captivity at Shanghai. Emblem of longevity among the Chinese, and the subject of many pictures and works of art.

258. GRUS MONACHA, Temm.

North China and Japan.

259. GLAREOLA ORIENTALIS, Lath.

In all marshy plains throughout China, as far north as Peking; also abundant in Formosa. Not noted from the Amoor or Japan.

260. VANELLUS CRISTATUS, Meyer & Wolf.

North China from Shanghai to Peking and Amoorland. Shot by Captain Blakiston, at Shanghai, in January.

261. LOBIVANELLUS CINEREUS, Blyth, J. A. S. B. xi. p. 587.

Chætusia wagleri, Bp.

Common on the banks of the Yangtze, Central China, in summer, whence it probably migrates southwards to the plains of Hindostan. A specimen brought by Captain Blakiston agrees entirely with those from India. The *Lobivanellus inornatus* of Japan is said to be distinct. One shot at Amoy was referred by Mr. G. Schlegel to that species, but it may have been the bird that migrates to India. It is said to be extremely rare in Japan; hence it is not unlikely that a few only straggle there, as the bird we procured straggled to Amoy.

262. SQUATAROLA HELVETICA, Gmel.

Winter visitant to the coasts of China and Formosa from the north.

263. CHARADRIUS LONGIPES, Temm.

C. virginicus of my previous lists.

Throughout China and Japan. Many stay to breed about South China and Formosa. The females are smaller than the males, and their eggs unusually small.

264. EUDROMIAS MORINELLUS, L.

Observed by Middendorff in North-eastern Asia in June and August. Procured, according to Cassin, at Hakodadi (North Japan).

265. ÆGIALITES LESCHENAULTII.

Charadrius leschenaultii, Less.*C. geoffroyii*, Wagler.*C. asiaticus (caspius)*, Pall.*Hiaticula rufina*, Blyth.

On all the coasts of Southern Asia. Somewhat rare on Chinese coast. Common in Formosa, where it stays the whole year and breeds. This appears to be the largest of this group, and has a heavy black bill. *Ægialites hiaticula*, L., of Europe, is said by

Temminck to have been procured from Japan, but I should think it extremely doubtful. Mr. Tristram has an undoubted specimen of this species, shot by himself between Cairo and Suez in February. This is the most westerly occurrence of this bird I have heard of.

266. *ÆGIALITES MONGOLICUS.*

Charadrius mongolicus, Pall. ; Midd. Sib. Reise.

C. ruficollis, Cuv.

C. pyrrhothorax, Temm.

C. cirrhipedesmos, Wagler.

C. sanguineus, Less.

C. rufinellus, Blyth.

Inland plains of North China, Mongolia, and Amoorland. Common in winter in Lower Bengal. It appears rarely, if ever, to come to the sea-coast, and is probably a Dotterel, though it has many affinities with the Sand-plovers.

267. *ÆGIALITES CANTIANUS.*

Charadrius cantianus, Lath. (*alexandrinus*, Pall.).

Though not noted by von Schrenck from the Amoor, I suspect the summer resort of this bird extends as high up as Kamtschatka. I found it at Taliénwan, and in winter we receive large accessions to our resident numbers from the north. It is, I think, entirely a bird of the coast, never being met with inland. The birds that stay to breed on the coasts and islands of South China and Formosa can at once be recognized by their flesh-coloured legs, which in the arrivals from the north are leaden. Our southern birds are, moreover, larger, very pale, in some cases almost white, and never, to my knowledge, attain aught but an indication of the bright rufous and black that adorn the head of the northern form. A similar resident race has been procured on the coast of California, and separated by Cassin as a distinct species under the term *Hiaticula nivosa*. I do not think we can regard this form other than as a climatal or incipient species, or, if the term be preferred, *conspicies*.

268. *ÆGIALITES PHILLIPINUS.*

Charadrius philippinus, Scopoli.

C. minor, Meyer, and of British authors.

C. curonicus, Beske.

Abundant on the coasts of China and Formosa, where many spend the whole summer. Extends into Amoorland and Japan. Is somewhat an inland bird, and frequently found on the sandy banks of rivers, and in winter on freshly ploughed fields, margins of pools, marshy grounds, and wet rice-fields.

269. *HÆMATOPUS LONGIROSTRIS*, Gray.

H. ostralegus, L., of my former lists.

Bill an inch and more longer than in *H. ostralegus*, and differently shaped. It never has the white collar, even when immature, and

has more white on the tail, especially on the outer feathers. Winter visitant to south coast of China, thence to the Indian Archipelago. Found in summer at Taliénwan. Extends up the coast of Mantchuria to northern latitudes in summer, at which season it also occurs in Japan.

270. *HÆMATOPUS NIGER*, Pall.

Kurile Isles, Sagalien, and Sea of Ochotsk.

271. *RECURVIROSTRA AVOCETTA*, L.

Winter visitant to South China. Summers probably in North China and Amoorland.

272. *TOTANUS GLOTTIS*, L.

T. glottoides, Vigors.

Visits the coasts of China, Japan, and Formosa in winter.

273. *TOTANUS STAGNATILIS*, Bechst.

Rare on the Chinese coast. Seen occasionally during winter on the coast in small flocks. A specimen procured in Formosa. It also appears to be rare on the coasts of North-eastern Asia; for Middendorff procured it only once on the shores of the Sea of Ochotsk.

274. *TOTANUS FUSCUS*, L.

Winter visitant to south coast. Specimens procured at Macao and Tientsin.

275. *TOTANUS CALIDRIS*, L.

Commoner than the last in winter, though both somewhat rare. Specimen procured in Formosa.

276. *TOTANUS GLAREOLA*, Gmel.

Common in small flocks in marshy places in September and October in South China, just arrived from the north, and evidently bound to more southerly latitudes. Disappears in winter, and returns late in spring, bound north. Never seen on the coast.

277. *TOTANUS AFFINIS*, Horsf.

I procured one of this species out of a small party in a rice-field near Amoy, on the 12th of September 1859. The flight and note of the bird struck me as peculiar at the time. It is most nearly allied to *T. glareola*, from which it is at once distinguished by the deep olive-tint of the upper parts, the head and back being destitute of spots, by the few whitish spots of its wing-coverts and tertiaries, which are, on the other hand, spotted with black, in these respects resembling *T. ochropus*. The tail, however, is closer to that of *T. glareola*; but the central feathers are more olive, and with few white markings. The breast is washed on the sides with olive-brown, and has no spots. The tarsus is shorter than in either *T. glareola* or *T. ochropus*, as also the bill. Mr. Tristram agrees with me in considering it a good species. It has also considerable affinity with *T. hypoleucus*.

278. *TOTANUS OCHROPUS*, L.

Seldom found on the coast. Rather solitary in habits. A few stay all the year in South China.

279. *TOTANUS BREVIPES*, Vieill.

T. pulverulentus (Müll.), Faun. Jap.

T. glareola, Pall.

T. griseopygeus, Gould, Birds of Austr.

T. fuliginosus, G. R. Gray, G. of B. (winter).

Found on Chinese coast in winter, but much commoner during the early part of that season in Formosa. Extends its winter migration to the Indian Archipelago and to Australia. Procured also from Japan, where it probably breeds. Not noted from Amoorland by von Schrenck, but has been procured from Kamtschatka and the Sea of Ochotsk.

280. *TOTANUS HYPOLEUCUS*, L.

T. empusa, Gould, Birds of Austr.

Tringoides hypoleuca of previous lists.

Everywhere a common resident species on the coast and on banks of rivers. Associates in flocks and parties in winter, and in rigorous weather shifts southwards.

281. *MACHETES PUGNAX*, L.

From Kamtschatka and Siberia, where it summers, visiting India and interior of China in winter.

282. *TEREKIA CINEREA*.

Scolopax cinerea, Gmel.

Limosa recurvirostra, Pall.

L. cinerea, apud von Schrenck.

Procured in summer plumage at Tientsin, and noticed as a summer bird in Amoorland. I have never observed it on the South Chinese coast, and it is not improbable that it migrates southwards through the interior. Is a common winter bird in India and its archipelago, and has been procured in that season in Australia.

283. *LIMOSA UROPYGIALIS*, Gould, Birds of Austr.

Procured only once at Amoy in early spring. Not noted before from any part of East Asia. This is probably the species procured in Java and Timor, and not the *L. lapponica*, as has been recorded. Probably breeds in North-east Asia, and migrates south-easterly, a few occasionally finding their way to the Chinese coast. No short-legged Godwit is noted from Hindostan (see Blyth's 'List'). My specimen is identical with Australian specimens, and was procured at Amoy. Middendorff gives *L. rufa* seu *lapponica* from North-east Asia; but I strongly suspect it will be found to be this species, for both forms could hardly be expected to occur together. *L. rufa* is also recorded by Schlegel from Japan.

284. LIMOSA ÆGOCEPHALA, L. (*L. melanura*, Leisler).*L. melanuroides*, Gould, Birds of Austr.

Never observed on the Chinese coast, and not noted from the Amoor by von Schrenck. Middendorff found young birds on the great Schantar Island on the 11th August. Said to be found on lakes and inland marshes of China, whence it is brought to the Tientsin and Shanghai markets in winter. It is probably from Mantchuria that these birds come, spreading down to the Indian Archipelago southwards, and eastwards to North Australia, to both of which places they resort in winter. Temminck and Schlegel note it from Japan.

285. PSEUDOSCOLOPAX SEMIPALMATUS, Jerdon, Blyth, J. A. S. xvii. 252.

Micropalama tacsanowskia, J. Verreaux, Revue de Zoologie.

Summers in inland Northern China and Mongolia, migrating overland in winter southwards, occasionally into the plains of Hindostan. Messrs. Jerdon and Blyth have procured it near Calcutta and on the Coromandel coast in the cool season. I have one in partially moulted plumage, shot in autumn at Hankow, Central China, and another in full summer plumage from the neighbourhood of Tientsin. In its bright rufous summer garb, and in almost every particular, this bird is a perfect Godwit. You have only to cut off the bill, and it is almost undistinguishable from *Limosa uropygialis*. It forms the same connecting link between *Limosa* and *Scolopax* that *Macroramphus griseus* appears to form between *Totanus* and *Scolopax*.

286. SCOLOPAX RUSTICOLA, L.

Very common in North China and Japan during winter. Frequent, but rarer, during the same season on the hills of Southern China. Curiously enough, it is not noted from Amoorland. Specimens identical with the European bird.

287. GALLINAGO SOLITARIA, Hodgs.

Scolopax hyemalis (Grismann), Midd. Sib. Reise.

I procured a specimen one winter on the hills of Amoy, which was identified by Mr. Blyth as of this species. The specimen was unfortunately never returned to me; so I have not been able to compare it with skins in museums in England. It is said by Messrs. Temminck and Schlegel ('Fauna Japonica') to be also found in South Japan. If so, we can easily account for its presence in Amoy. My specimen haunted for several weeks a mountain stream, and did not care apparently to mix with the Snipes of the rice-fields on the plains. I may here remark that a large Snipe, brought by Captain Blakiston from North Japan, was identical with *G. australis*, Gould, of Australia (see The Ibis, 1863, p. 416).

288. GALLINAGO MEGALA, Swinhoe, Ibis, 1861, p. 343.

Scolopax palustris, Pall.

This is the Great Snipe of China. I found it on the marshes near Peking in September. At the close of the same month it passes down the coast, being found at Shanghai, Amoy, and Canton for a few days only, and apparently bound further southwards. At the end of April and beginning of May it occurs in South China again for a few days, and is then bound north. During the season of its migrations, I procured it also in S.W. Formosa. It does not appear to have been noted in Amoorland; but Pallas's Great Snipe from Siberia will probably be the same as our bird. Pallas failed to distinguish the Eastern from the Western Great Snipe. His name therefore might with equal propriety be applied to either.

289. GALLINAGO STENURA, Temm.

G. horsfieldii, Gray.

Abundant from Canton to Peking. It moves about in flocks in winter, but seems to breed in many places throughout China, north and south. Chinese specimens are identical with those from Hindostan and Java.

290. GALLINAGO SCOLOPACINA, Bp.

Scolopax gallinago, L.

S. biclava, Hodgs.

This Snipe appears to be of very general distribution throughout Asia. It is the only one of this genus noted by von Schrenck from Amoorland. In North China it probably breeds; but, as far as my observations go, in South China and Formosa it is only a winter bird.

291. GALLINAGO BURKA (Lath.).

G. brehmi, Kaup.

G. uniclava, Hodgs.

The same peculiarity of fourteen tail-feathers, with the long outermost one, occurs in the majority of my Snipes from Canton and Peking. This is the *common* Snipe of China, visiting the south in large wisps during winter. Indian skins are identical with those from China. It appears to be the Eastern representative of the foregoing, which occurs more sparsely.

292. GALLINAGO GALLINULA, L.

Said by sportsmen to be abundant at Canton. I have never met with it, and therefore know nothing of its movements. It may retire northwards by an inland route; but von Schrenck does not note it from the Amoor, and it is not recorded as a Japanese bird.

293. RHYNCHEA BENGALENSIS, L.

Scolopax capensis, Gm.

R. orientalis, Horsf.

R. sinensis, Lath.

The Cape, the Indian, and the Chinese bird all appear to be the

same species, the female being much larger, and coloured in a more brilliant and variegated manner. It is somewhat sparsely scattered throughout the plains of China, from Canton to north of Foochow; but I do not think it ever occurs so far up as Shanghai. It is a resident species, and generally found solitary or in very small parties.

294. CALIDRIS ARENARIA.

Charadrius calidris, L.

Tringa tridactyla, Pall.

This bird occurs at Amoy and on the South China coast only in September, October, April, and May, its southward destination being apparently in lower latitudes, and its northward much higher, though it is not noted from Amoorland. A few are occasionally met with the winter through.

295. STREPSILAS INTERPRES, L.

The same remarks may be applied to this as the last. I have procured both these birds in summer as well as winter dress at Amoy.

296. LOBIPES HYPERBOREUS, L.

Noted from Amoorland. Parties come down our coast as early as October, and some do not return till very late. I have procured them off the Amoy coast in May, in nearly complete summer plumage.

297. PHALAROPUS FULICARIUS, L.

I have not yet observed this species in China, but it occurs in winter in Hindostan. Middendorff found it breeding on the 17th July in S.E. Siberia; and it thence doubtless visits the interior of China, if not the coast. It has been procured from Kamtschatka and the Kurile Islands.

298. TRINGA TENUIROSTRIS.

Totanus tenuirostris, Horsf. Linn. Trans. xiii. p. 192.

Schœniclus magnus, Gould, Birds of Austr.

T. crassirostris, Temm. & Schleg. Faun. Jap. 1850.

Noted from Amoorland and Japan. A few occasionally come down the China coast. I have one from Shanghai. Its migrations from the Amoor are doubtless in a more easterly direction, towards Australia, touching at Japan, from both which countries it has been brought.

299. TRINGA CANUTUS, L.

Noted from Amoorland. Extremely rare in China. I have a young specimen from Shanghai.

300. TRINGA MARITIMA, Brünn.

Three specimens procured out of a flock, on the 9th August, by Middendorff in Amoorland, lat. 75°.

301. *TRINGA PLATYRHYNCHA*, Temm.

Rare on the Chinese coast, but pretty common in early winter on the mud-flats of Formosa.

302. *TRINGA RUFESCENS*, Vieill.

A single specimen procured by Middendorff, on the 30th June, on the south coast of Sea of Ochotsk.

303. *TRINGA CINCLUS*, L.

T. chinensis et *T. subarcuata* of my previous lists in *The Ibis*.

Very abundant on the China coast the winter through. They retire northwards on the approach of summer, but return early, often in nearly full summer plumage.

304. *TRINGA SCHINZII*, Brehm.

Found by Middendorff amongst flocks of the foregoing, 11th August, on south coast of Sea of Ochotsk.

305. *TRINGA ACUMINATA*.

Totanus acuminatus, Horsf. Linn. Trans. xiii. p. 192.

Schoenclus australis, Gould, Birds of Austr. vi. pl. 30.

Allied to *T. pectoralis* of America, but quite distinct. Very common on marshes near Peking in August. It occurs occasionally on South Chinese coast. I procured a few at Amoy in April and May in almost full summer dress. I suspect their migrations are usually more easterly, to Australia.

306. *TRINGA DAMACENSIS*.

Totanus damacensis, Horsf. Linn. Trans. xiii. p. 192.

Tringa subminuta, Midd. Sib. Reise.

Allied to *T. minuta*, Leisl., but at once distinguished by its very long toes, and by the brown instead of white shafts to its primaries. Middendorff (Sib. Reis.) procured a pair in summer plumage in Siberia. In that plumage they were similar to *T. minuta*, except in the distinctions before stated. I have one in winter plumage from Formosa, two in summer from Amoy, and several sent to me by Mr. Blyth from Calcutta labelled *T. minuta*. I have compared our specimens from China and India, in company with Mr. Tristram, with examples of the European *T. minuta*, and we are agreed in its decided specific distinction. The true *T. minuta* occurs only as a straggler in Siberia, where it is replaced by this species, which doubtless thence ranges in winter into Hindostan in great abundance. These birds occur every year in sparse numbers near Amoy, on inland marshes, early in winter and late in spring, during their migrations. *T. pusilla*, Wils., of America, has longer toes than *T. minuta*, and seems to form a link between it and this species.

307. *TRINGA ALBESCENS*, Temm.

Visits the South China coast in flocks in September, and again in

April and May. It has probably a long way to travel, for in winter it is found throughout the Indian Archipelago and in Australia. In summer its throat and neck become brick-red, and it then looks much like a miniature of the Sanderling (*Calidris arenaria*). I have in previous lists wrongly referred this species to *T. subminuta*, Midd.

308. *TRINGA SUBARCUATA*, L.

A specimen in full red summer plumage received from Tientsin. It is also noted from Amoorland. Its migrations do not appear to extend far south, for I have never met with it on the coast below Shanghai.

309. *TRINGA TEMMINCKII*, Leisl.

Common during the winter in South China, on the banks of inland lakes and marshes.

310. *EURINORHYNCHUS PYGMÆUS*, Lath.

A large flock of these was observed by Middendorff on the south coast of the Sea of Ochotsk in July.

311. *NUMENIUS MINUTUS*, Gould, Birds of Austr.

N. minor, Temm. & Schleg. Faun. Jap.

Smaller than *N. borealis* of America, and quite distinct. It is noted from Amoorland and Japan, whence probably it migrates to winter in Australia. A few occur occasionally on the South China coast. I have a pair shot at Amoy on the 29th of April.

312. *NUMENIUS PHÆOPUS*, L.

Is said to be common in India in winter, whither it probably comes from Siberia, where it occurs in summer, according to Pallas and Middendorff. Temminck notes having procured it from Japan. Hence I include it in my list, though not as yet observed on the Chinese coast.

313. *NUMENIUS UROPYGIALIS*, Gould, Birds of Austr.

Procured by myself in South-west Formosa in October. Found in Australia and the islands of the Indian Archipelago, in all of which it probably breeds, as I have reason to suppose it does at Formosa. My two specimens are identical with two from Halmaheira, sent me by Professor Schlegel. It differs from the Whimbrel, *N. phæopus*, in having a brown and white-barred rump, and forms the intermediate link between that species and the brown-and-black rumped *N. hudsonicus* of America.

314. *NUMENIUS* — ?

A species smaller than *N. arcuatus*, with long thin bill, allied to *N. tenuirostris* of North Africa, is noted by Cassin (Proc. Acad. Sci. Phil.) from Hakodadi, North Japan. This species has, unfortu-

nately, not been named. Nothing is known of it except from Cassin's short note.

315. *NUMENIUS TAHITIENSIS*, Gmel. ; Cassin in Perry's Expedition to Japan, ii. p. 228.

This species was procured by the members of the American Expedition to Japan under Commodore Perry. It was previously considered peculiar to Otaheite and the islands of the Pacific. Figures and a good description of it are given in the work named. It may have been only a straggler to the Japanese shores ; but I include it in my list on the probability of its also occasionally occurring on the shores of China. I strongly suspect, however, that it is identical with the foregoing *N. uropygialis*.

316. *NUMENIUS ARCUATUS*, L.

Visits the coasts of China, as far south as Canton, in large flocks in winter, retiring northwards on approach of summer. Von Schrenck does not note it from Amoorland.

317. *NUMENIUS MAJOR*, Temm. & Schleg. Faun. Jap.

Distinguished from the last by its much longer and heavier bill and by its longer legs. Visits the shores of South China and Formosa in winter, and probably retires to Japan to breed, whence it was originally described.

318. *NUMENIUS AUSTRALIS*, Gould.

Easily distinguished from *N. arcuatus* and allied species by its barred upper tail-coverts. It is the only Curlew reported from Amoorland. I found it very abundant about the marshes near Pekin in August, but have never observed it on the coasts of South China ; hence I should infer that its migrations are in an easterly direction towards Australia, in which country it is found in winter.

319. *NUMENIUS RUFESCENS*, Gould, P. Z. S. 1862, p. 286.

Appears to be a local race of the last, being, like it, barred on the rump, but much more rufescent. I found it breeding in North Formosa.

320. *THRESKIORNIS MELANOCEPHALUS*, L. ?

This is the only known species to which I can liken the black-headed white Ibises that I met in a flock at Talienswan in July 1860 (see *The Ibis*, 1861, p. 261). It is found in India, and, as is the case with many other Indian species of birds, probably summers in the interior of North China. It has not been recorded by others from Eastern Asia.

321. *IBIS NIPPON*, Temm. & Schleg. Faun. Jap.

Breeds probably in Japan, and is found in small parties on the coast near Shanghai and at North Formosa in winter. The immature plumage is grey ; that of the adult pure white.

322. PLATALEA MAJOR, Temm. & Schleg. Faun. Jap.

Breeds probably in Japan. A winter visitant to Formosa and the South Chinese coast, as far south as Canton. I have procured it from Swatow.

323. PLATALEA MINOR, Temm. & Schleg. Faun. Jap.

Described from Japan. I have never seen it from China, but it probably occurs on the coast during winter.

324. CICONIA NIGRA, L.

Noted from Amoorland. Said to occur in North China.

325. CICONIA ALBA, L.

Noted from Amoorland. Said to occur in North China.

326. ARDEA CINEREA, L.

Throughout China to Amoorland, Japan, and in Formosa.

327. ARDEA PURPUREA, L.

Interior of Central China. I have specimens from Hankow. Has also been procured from Japan (Temminck).

328. HERODIAS ALBA, L.

Ardea modesta, Gray.

A. syrmatophora, Gould.

Mr. Blyth agrees with me in considering the Great Egret of Europe, Asia, Africa, and Australia the same. It acquires a black bill and long dorsal plumes in summer, in winter the plumes fall away, and the bill of the bird becomes yellow. There is a considerable difference in size between the male and female, the male being much larger. Found throughout China into Amoorland, in Formosa, and probably Japan, though not yet noted from the last place.

329. HERODIAS INTERMEDIA, Wagl.

Ardea egrettoides, Temm.

H. plumifera, Gould, Birds of Austr.

In size this is intermediate between the foregoing and the succeeding. In winter it also has a yellow bill, but that organ is proportionally very short. In summer the bill turns black; it acquires long straight dorsal plumes, not curled upwards as in the next; and the pectoral plumes are like those of the back, not acuminate, thus distinguishing it at once from its near allies. I have a specimen from Hankow, Central China, and have seen it at Tientsin; so I suspect it is widely distributed throughout China. It is also noted from Japan and India, and is probably the same as *H. plumifera* of Australia.

330. HERODIAS GARZETTA, L.

A very lovely bird in full plumage. Very abundant throughout

Southern China, as far north as Shanghai, as also in Formosa. Not noted from Northern China, Amoorland, or Japan.

331. *HERODIAS EULOPHOTES*, Swinhoe, Ibis, 1860, p. 64, et 1863, p. 418.

Sparsely distributed throughout Southern China, but commonest in North Formosa. Allied to the foregoing, but has a *yellow* bill in summer, the dorsal plumes straight, and the occipital plumes a bunch instead of a few long feathers. In winter it is distinguishable by its very short legs and by its thicker light greenish-yellow bill.

332. *BUPHUS COROMANDELIANUS*, Scop.

A common summer visitant to South China and Formosa, retiring south on approach of winter. Has been procured, according to Temminck, in Japan.

333. *BUTORIDES JAVANICA*, Horsfield.

B. virescens, var. *scapularis* (Illig.); von Schrenck, Amurland, p. 437.

A summer visitant to China and Amoorland.

334. *ARDEOLA PRASINOSCELES*, Swinhoe, Ibis, 1863, p. 421.

A resident species in South China, as far north as Shanghai, extending westwards to Hankow, and southwards probably to Siam. Its nearest ally is the *A. speciosa*, Horsf., of Java, which, however, in mature plumage has the head and neck orange-buff, with long cream-white crest-feathers, instead of having the whole a deep maroon colour.

335. *NYCTICORAX GRISEUS*, L.

A resident species, abundant throughout China from Canton to Peking, and in Formosa.

336. *NYCTICORAX MELANOLOPHUS*, Raffles.

Ardea goisagi, Temm. & Schleg. Faun. Jap.

From Japan and the Indian Archipelago. I observed a bird resembling this near Tientsin (see *The Ibis*, 1861, p. 344).

337. *BOTAURUS STELLARIS*, L.

Somewhat sparsely scattered throughout China to Amoorland. I have specimens from Canton and Swatow.

338. *ARDETTA FLAVICOLLIS*, Lath.

South China, from Canton to Shanghai and in Formosa. A few, I think, stay all the year, though most are summer visitants.

339. *ARDETTA CINNAMOMEA*, Gmel.

A summer visitant to China, Amoorland, and Japan. A few stay all the year in South China.

340. ARDETTA SINENSIS, Gmel.

Found in summer, from Canton to Tientsin, and in Formosa. On the approach of winter they retire south. I have an undoubted hybrid between this and the last species, procured at Amoy. It curiously combines the characters of both. M. J. Verreaux has mentioned to me an analogous case of a hybrid between *A. cinerea* and *A. purpurea*. Temminck refers the small Japanese Bittern to *A. minuta*, L., of Europe, but I suspect he is wrong in this.

341. HYDROPHASIANUS SINENSIS, L.

Parra luzoniensis, Gmel.

Interior of Southern and Central China. I have fine specimens in full summer plumage from Hankow.

342. GALLICREX CRISTATUS, Lath.

I consider this bird a summer visitant to South China, from Canton to Shanghai, and also to Formosa. I have specimens in full summer plumage from Hankow; and it was shot by Captain Blakiston's party at Foochow in Szechuen, 1700 miles up the Yangtze, in May, in a wheat-field near no water.

343. GALLINULA CHLOROPUS, L.

A resident species throughout China and Formosa. Specimens from there are identically the same as European ones. The Japanese form is said to vary somewhat.

344. GALLINULA PHENICURA, Penn.

This is I think a summer visitant to China. It is not uncommon during that season from Canton to Tientsin, and in Formosa.

345. PORZANA FUSCA, Shaw.

P. erythrothorax, Temm. & Schlegl. Faun. Jap.

Identical with Indian examples. Varies much in size. Found throughout China, Japan, and Formosa.

346. PORZANA MINUTA, Pall. (*P. pusilla*, Gmel.).

This species is given by Temminck from Japan.

347. PORZANA PYGMÆA, Naumann.

Gallinula bailloni, Vieill.

Procured from Tientsin, and is probably found throughout Central China, as it is throughout Hindostan. Japan (Temminck).

348. ORTYGOMETRA CREX, L.

Said to have been procured from China. I have never met with the bird there.

349. RALLUS STRIATUS, L.

Procured in Formosa, identically the same with Indian and Malayan specimens. It probably also ranges throughout Southern China.

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350. RALLUS AQUATICUS, L.

Identical with British examples, except in its having a thicker bill. Specimens received from Tientsin. It probably ranges throughout Northern and Central China. It occurs also in Japan. The Indian race has a thicker bill, and more distinct white striæ on the upper wing-coverts.

351. FULICA ATRA, L.

Found throughout China, but commoner in the northern half, from Shanghai to Peking. From the last-named and from Hankow I have specimens identical with the European bird. Occurs also in Japan.

ANSERES.

352. PODICEPS MINOR, Gmel.

P. philippensis, Gmel.

Found throughout China and Formosa. In cold, many leave the ponds of the interior and take to the sea. In full plumage, identical with European specimens.

353. PODICEPS RUBRICOLLIS, Lath.

P. subcristatus (Jacq.), von Schrenck, Amurland, p. 493.

P. rubricollis major, Temm. & Schleg. Faun. Jap.

Lakes of North China, up to Amoorland, and in Japan. I have never met with it on the coast.

354. PODICEPS AURITUS, L.

Lakes of Central and Northern China, appearing on the southern coast in severe winter seasons. Japan (von Schrenck). I have a specimen from Amoy.

355. PODICEPS CORNUTUS, Lath.

North China to Amoorland. Visits the south coast in winter. I have a specimen from Amoy.

356. PODICEPS CRISTATUS, L.

P. cornutus, Pall.

Very common. In winter large numbers appear on the southern coast. Kamtschatka and Japan (Temminck).

357. COLYMBUS SEPTENTRIONALIS, L.

Very common on the southern coast in winter.

358. COLYMBUS GLACIALIS, L., var. *adamsii*, Gray.

Sea of Ochotsk (Midd.).

359. COLYMBUS ARCTICUS, L.

Amoorland (von Schrenck); said to visit the north coast of China.

360. MERGUS ALBELLUS, L.

North China in winter. Abundant in the Tientsin market.

361. *MERGUS SERRATOR*, L.

Common throughout China.

362. *MERGUS MERGANSER*, L.

North China. Abundant in markets at Tientsin in winter. It is probably also a summer bird in the large marshes of that neighbourhood.

363. *CYGNUS MUSICUS*, Bechst.

Visits North China and Japan in winter (Temm.).

364. *CYGNUS MINOR*, Pall.

C. bewickii, Yarr.

Commoner than the foregoing. Comes down in winter occasionally as far south as Canton.

365. *ANSER CYGNOIDES*, L.

A large wild Goose, answering to von Schrenck's description of the so-called stock of the Chinese domestic Goose, visits the shores of North China in winter, and is frequently procurable in the market; but it has no distinct knob on the bill.

366. *ANSER HYPERBOREUS*, Pall.

Sea of Ochotsk (Midd.); Japan and Kamtschatka (Temm. & Sieb.).

367. *ANSER GRANDIS*, Gmel.

Shanghai in winter.

368. *ANSER SEGETUM*, Gmel.

Down to Canton in winter.

369. *ANSER FERUS*.

A. cinereus (Meyer & Wolf); von Schrenck.

To Canton in winter.

370. *ANSER ALBIFRONS*, Penn.

All these are procurable during winter in the Shanghai and Tientsin markets.

371. *ANSER ERYTHROPUS* (Linn.) (*A. minutus*, Naumann); Midd. Sib. Reise.372. *ANSER LEUCOPSIS*, Bechst.; Midd. Sib. Reise.373. *ANSER BERNICLA*, Ill.; Midd. Sib. Reise.374. *ANSER RUFICOLLIS*, Pall.; Midd. Sib. Reise.375. *ANSER BRENTA*, Pall.

Sea of Ochotsk (Midd.).

376. *AIX GALERICULATA*, L.

Found in the lakes of Central China and neighbourhood of Ningpo in winter. Said to breed in Amoorland.

377. *TADORNA VULPANSER*, Linn.

378. *CASARCA RUTILA*, Pallas.

379. *ANAS BOSCHAS*, L.

380. *ANAS PÆCILORHYNCHA*, Temm.

381. *ANAS GLOCITANS*, Pall.

382. *ANAS FALCARIA*, Pall.

383. *ANAS CRECCA*, L.

384. *ANAS QUERQUEDULA*, L.

385. *ANAS STREPERA*, L.; Midd. Sib. Reise.

386. *ANAS ACUTA*, L.

387. *ANAS PENELOPE*, L.

388. *ANAS STELLERI*, Pall. (Midd. Sib. Reise).

389. *ANAS CLYPEATA*, L.

390. *ANAS SPECTABILIS*, L. (Midd. Sib. Reise).

391. *ANAS HISTRIONICA*, L. (von Schrenck).

392. *ANAS CLANGULA*, L.

393. *FULIGULA MARILA*, L.

394. *FULIGULA CRISTATA*, Leach.

395. *ÆDESMIA NIGRA*, L. (*A. atra*, Pall.).

North and East Siberia (Pallas). Japan (Temminck).

396. *ÆDESMIA AMERICANA*, Swainson.

Shot by Captain Blakiston's party at Chinkiang, on the Yangtze, in winter.

397. *ÆDESMIA FUSCA*, L.

Amoorland (Midd.).

398. *HARELDA GLACIALIS*, L.

Amoorland (Midd.).

399. *PHALACROCORAX CARBO*, L.

Graculus carbo, L.; Cassin, Perry's Exped. ii. p. 239.

At Yeddo in April.

I can find no special points of difference between my Amoy spe-

cimens and the English bird. It only winters in South China, returning to the north and Amoorland to breed.

400. PHALACROCORAX CAPILLATUS, Faun. Jap. pl. 83.

Carbo filamentosus, Temm. & Schleg. Faun. Jap. p. 129.

This species from Japan is recognized as distinct by Temminck, and well described and figured in the 'Fauna Japonica.' I admit it on the authority of that work, though I have never met with it in China.

401. PHALACROCORAX BICRISTATUS, Pall.

Sea of Ochotsk (Midd.). Also Japan, according to Temminck and Schlegel, 'Fauna Japonica,' where it is described and figured. A straggler was procured one winter at Amoy, South China.

402. PELECANUS ONOCROTALUS, L.

Said by Temminck to have been procured in Japan. From East Europe and Hindostan.

403. PELECANUS PHILIPPENSIS, Gmel.

This bird visits the south coast of China during winter in small parties.

404. SULA FUSCA, Shaw.

A bird from Shanghai is of this species. I have never met with it on the Chinese coast. It is recorded in the 'Fauna Japonica' from Japan.

405. LARUS NIVEUS, Pall.; Bp. Consp. Av. ii. p. 224.

L. canus, var. *major*, Midd. Sib. Reise.

The Eastern representative of *L. canus*, with larger and stronger bill; irides yellowish grey; eyelids red; bill unspotted, greenish yellow; legs yellowish green. Is found in Kamtschatka and North-eastern Asia, visiting the south coast in winter. I have several from Amoy in all plumages, and one without a hind claw. The immature birds that reach us have always the back more or less grey, proving the plumage completed in two years.

406. LARUS TRIDACTYLUS, var. BRACHYRHYNCHUS.

Rissa brachyrhyncha, Gould.

Gavina citrirostris, Bruch.; Bp. Consp. Av. ii. p. 226.

The Eastern representative of *Rissa tridactyla*, L. Found in Kamtschatka. Not yet procured in China. Thus distinguished by Bonaparte:—"Minor: alba, pallio plumbeo-cano: remigibus primariis griseis, nec intus albis, extimis duabus apice late nigris; tertia, quarta et quinta fascia subapicali nigra; sexta macula tantum nigra in pogonio externo: rostro brevi, robusto, incurvo, flavissimo: pedibus rubro-flavis.

"Long. 14 poll. Rostr. $1\frac{1}{3}$. Al. 12 poll. Caud. $4\frac{1}{2}$. Tars. 1 poll."

407. *LARUS CRASSIROSTRIS*, Vieill.

L. melanurus, Temm. & Schleg. Faun. Jap.

Albus, dorso alisque fusco-cinereis; remigibus primariis nigris, ceteris cum tectricium apicibus albis; cauda alba, fascia subterminali latissime nigra: rostro validiusculo, flavido, apice nigro annulato: pedibus fusco-carneis.

Long. 17 poll.

This species breeds in Japan and Talienwan, repairing in large numbers to the South China coast. In full plumage it can always be distinguished from *L. niveus* by its black tail-band, its much darker mantle, and by its large bill, banded at the end with black and crimson. The immature are very much browner than those of the other bird. The different stages of its plumage have been well figured in the 'Fauna Japonica.' I have numbers of specimens from various parts of China,

408. *LARUS GLAUDESCENS*, Licht.; Bp. Consp. Av. ii. p. 216.

L. glaucus, Brünn.; Midd. Sib. Reise.

L. brachyrhynchus, Gould.

Ex Ocean. Pac., Arct. et Kamtschatka. Not yet met with on the coasts of China or Japan. Simillimus *L. glauco*, sed minor (long. 2 ped.), et remigibus *perlanceis*, nec nigris nec albis, apice tantum candidis: rostro flavo, angulo mandibulæ aurantiaco.

409. *LARUS LEUCOPTERUS*, Faber; Midd. Sib. Reise.

A small form of the preceding (length 20 inches), with comparatively longer wings, said by Middendorff to occur also in North-east Asia.

410. *LARUS OCCIDENTALIS*, Aud. Synop. Birds of Am. p. 328.

"Bill robust, compressed, yellow, with an orange-red patch toward the end of the lower mandible; iris light hazel; feet flesh-coloured; head, neck, lower parts, rump, and tail pure white; back and wings light greyish blue, of a deeper tint than in *L. argentatus*; edges of the wings and extremities of the quills white; first seven quills greyish black toward the end, that colour including the outer webs and the greater part of the inner of the two first, and on the rest gradually diminishing, so as on the seventh merely to form a subterminal bar; the first quill with a patch of white on both webs near the end; the tips of all white.

"This species, which is very intimately allied to *Larus argentatus*, is remarkable for the great depth and comparative shortness of its bill."—*Aud.*

Length 27 inches; wing $18\frac{1}{2}$; tail $8\frac{1}{4}$; bill, along culmen, $2\frac{1}{2}$; height at angle $\frac{9}{10}$.

The above description answers exactly to the large form of Gull, allied to *L. argentatus*, that visits our southern coasts in winter. I have frequently procured them at Amoy in that season in all stages, but more frequently in the immature. It is the West American re-

presentative race, extending probably to Kamtschatka, whence, doubtless with many other sea-birds, it wends southwards down our line of coast. I have two in very complete plumage. From observation, I should say that these birds require full three years for change into adult attire.

411. *LARUS CACHINNANS*, Pallas.

L. argentatus, var. *major*, von Schrenck.

Amoorland.

Length $22\frac{1}{2}$ inches; wing $16\frac{1}{2}$ –18; tail 7; tarsi $2\frac{1}{2}$; bill, along culmen, $2\frac{1}{4}$; height at angle $\frac{7}{10}$.

This smaller representative of *L. argentatus* bears to the preceding species the same relation that *L. leucopterus* does to *L. glaucus*, its wings being relatively longer. It is a commoner winter visitant than the former to Amoy, whence I have procured several both adult and immature. It has a darker more slaty back than *L. argentatus*, and is considered by some an intermediate link between that species and *L. fuscus*. It summers in N.E. Asia. Specimens vary a good deal in size and proportions, but I have never procured any exactly intermediate between the largest of this and the smallest of *L. occidentalis*.

412. *CHROICOCEPHALUS ICHTHYAËTOS*, Pall.

This monster black-capped Gull is noted by Cassin as procured at Hakodadi (see Perry's 'Expedition to Japan,' vol. ii. p. 252). It is said to be a bird of the Caspian and Red Seas, and to occur abundantly in the Bay of Bengal. It is not stated to be found in Amoorland or Kamtschatka; but it possibly makes its way to Japan, following the course of the warm Gulf-stream.

413. *CHROICOCEPHALUS BRUNNEICEPHALUS*, Jerdon.

L. ridibundus, var. *major*, Midd. Sib. Reise.

The Siberian and Japanese bird would appear, from descriptions, to be the same as the Brown-hooded Gull of India. Its range extends to Kamtschatka. I have a specimen from India, forwarded to me by Mr. Blyth.

414. *CHROICOCEPHALUS CAPISTRATUS*, Temm.

Larus brunneicephalus, Cassin, Perry's 'Expedition to Japan,' vol. ii. p. 232.

This comes to Amoy in the winter. I have one from Amoy, and another from Macao; and Cassin notes the occurrence of a similar bird from Hakodadi. It is smaller than the European *C. ridibundus*, and has a more slender bill, and is doubtless its representative in the East. It answers well to the description of *C. capistratus*, Temm., which has occurred in Great Britain, and which Mr. Tristram and others are inclined to believe is only a variety of *C. ridibundus*. The specimens, however, that have occurred in Europe might possibly have been stragglers from the East.

415. *CHROICOCEPHALUS KITTLITZII*, Licht.

Easily distinguished by its short, thick, *black* bill. It acquires a deep-black hood in summer. I have it in both summer and winter plumage from Amoy, where it occurs in large numbers the winter through, ascending rivers at fall of tide in search of mollusks and small crustaceans. It is said to summer in Kamtschatka and N.E. Asia.

416. *CHROICOCEPHALUS SABINII*, Leach.417. *CHROICOCEPHALUS MINUTUS*, Pall.

Both birds of the British lists. I introduce them from the fact of Middendorff stating that they occur on the shores of the Sea of Ochotsk.

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| 418. <i>LESTRIS POMARINA</i> , Temm. | } Said by Middendorff to occur on the shores of the Sea of Ochotsk. None of them have yet been obtained in China. |
| 419. <i>LESTRIS PARASITA</i> , Boie. | |
| 420. <i>LESTRIS BUFFONII</i> , Boie. | |

421. *RHYNCHOPS ALBICOLLIS*, Swainson.

Southern Ocean. Said occasionally to occur on the coast of Southern China.

422. *SYLOCHELIDON CASPIA*.

Sterna caspia, Latham.

Sylochelidon strenuus, Gould, B. of Austr.

Visits the coasts of China in winter. I have specimens from Amoy.

423. *GELOCHELIDON ANGLICA*.

Sterna anglica, Montagu.

Said to wander occasionally to the coast of South China in winter.

424. *HYDROCHELIDON INDICA*.

Viralva indica, Stephens.

Sterna hybrida, Pallas.

S. leucopareia, Natterer.

A common resident on the marshy plains of S.W. Formosa. I have not observed it elsewhere in China.

425. *HYDROCHELIDON NIGRA*.

Sterna nigra, L.

S. fissipes, Pall.

S. leucoptera, Temm.

Found throughout China, into Amoorland. I have a specimen in full summer plumage from Amoy, and several in a variety of plumages from near Pekin.

426. THALASSEUS CRISTATUS.

Sterna cristata, Stephens.*S. pelecanoides*, King.*S. velox*, Rüppell.

Seas of Southern China. Numbers breed yearly on the rocks of North Formosa.

427. STERNA MACRURA, Naum.; Midd. Sib. Reise.

Said to occur in N.E. Asia.

428. STERNA FULIGINOSA, Temm. & Schleg. Faun. Japon.

Procured as yet only from Japan.

429. STERNA HIRUNDO, L.

S. fluviatilis, Naumann.

Central China; never yet observed on the coast. I have a specimen from Hankow.

430. STERNA LONGIPENNIS, Nordmann; von Schrenck, Amurland, Vögel, p. 512.

From Amoorland, probably descending into North China. I have never met with it. Allied to the last, but with *black* bill and longer wings.

431. STERNULA MINUTA, L.

Visits the Chinese coast in winter. I have specimens from Amoy.

432. STERNULA SINENSIS, Gmel.; Swinhoe, Ibis, 1863, p. 429.

S. sumatrana, Raffles.

A common summer species in Formosa, breeding in large numbers on the precipitous rocky coast on the eastern side of the island. I have also specimens in various stages of plumage from Hankow, showing that it also breeds in Central China. I have never met with it on the Chinese coast; but from its being found in the Malayan archipelago, I should fancy that it migrates thither in winter.

433. ANOUS STOLIDUS.

Sterna stolidus, L.

Found in South China Sea; breeds on the eastern rocks of Formosa, whence I have a pair.

434. DIOMEDEA BRACHYURA, Temm. } Seas of Southern China,

435. DIOMEDEA NIGRIPES, Audubon. } the former ranging as far

north as Japan. These are the only two species of Albatros found north of the line. For remarks on them, see Ibis, 1863, p. 431.

436. PROCELLARIA GLACIALIS.

Procellaria glacialis, L., var. *pacifica*, Aud.; Bp. Consp. Av. ii. p. 187.

Kurile Islands and Amoorland.

437. PROCELLARIA DESOLATA, Gm.; Bp. Consp. Av. ii. p. 189.

Kamtschatka.

438. THALASSIDROMA LEACHII, Temm.; Bp. Consp. Av. ii. p. 195.

Amoorland.

439. NECTRIS TENUIROSTRIS, Temm.; Bp. Consp. Av. ii. p. 202.

Puffinus tenuirostris, Faun. Jap. pl. 86.

Corea and Japan.

440. PUFFINUS LEUCOMELAS, Temm.; Bp. Consp. Av. ii. p. 205.

Procellaria æquinoctialis, Pall.

Japan (Temm. Pl. Col. 587).

441. URIA ANTIQUA, Penn.

U. senicula, Pall.

Synthliboramphus antiquus, Brandt.

Amoorland (v. Schrenck), Japan (Faun. Jap.).

442. URIA UMIZUSUME, Temm. & Schl.

Synthliboramphus temminckii, Brandt.

Japan (Faun. Jap.).

443. URIA (CEPPHUS) CARBO, Pall.; von Schrenck, Amurland, p. 496.

Amoorland.

444. URIA (CEPPHUS) COLUMBA, Pall.

Sea of Ochotsk.

445. URIA (CEPPHUS) LOMVIA, Brünn.

Sea of Ochotsk.

446. ALCA TORDA, L.

Japan (Faun. Jap.).

447. CERATORHYNCHA MONOCERATA.

Alca monocerata, Pall.

Hakodadi, North Japan (Cassin, Perry's Exped. ii. p. 233).

448. PHALERIS CRISTATELLA, Pall.; von Schrenck, p. 500.

Amoorland.

449. PHALERIS MYSTACEA, Pall.

Sea of Ochotsk, Japan (Cassin).

450. PHALERIS TETRACULA, Pall.; Midd. Sib. Reise.

N. E. Asia.

451. OMBRIA PSITTACULA, Pall.; Midd. Sib. Reise.

South Sea of Ochotsk.

452. MORMON CIRRHATUM, Pall.; von Schrenck, p. 503.

Amoorland.

453. MORMON CORNICULATUM, Kittlitz; Midd. Sib. Reise.

South coast and islands of Sea of Ochotsk.

454. MORMON GLACIALE, Leach.

Kamtschatka, Kurile Islands, and Saghalien (Midd.).

In the above list, down to No. 254 (*Otis tarda*), I have restricted myself to those birds that I know from personal observation, or believe on reliable evidence, to occur in China limited—that is, from Canton to the borders of Mantchuria. Beyond that number, I have included all the species that I have been able to find recorded from North-eastern Asia and its islands. These are chiefly sea-birds, which, as every naturalist knows, are of an erratic nature, and often in severe winters turn up in very low latitudes on the same line of coast. I have in every case quoted the authority for the localities given.

For the sake of comparison with the land-birds of China, I subjoin comparative lists of the land-birds of Japan, Amoorland, and Formosa. My authorities for the first of these have been the 'Fauna Japonica,' Cassin's articles in Perry's 'Expedition to Japan' and in the 'Proceedings of the Academy of Natural Sciences of Philadelphia,' and Captain Blakiston's two papers in *The Ibis**. For the second I have resorted to Middendorff's 'Sibirische Reise' and von Schrenck's 'Amurland.' The third I have added from my articles on the Ornithology of Formosa in *The Ibis*, 1863, pp. 198, 250, 377.

The lists are as complete as I have been able, with these references, to make them. In the Japanese list, those marked "(Temminck)" are inserted from von Schrenck's "Schlussfolgerungen," at the end of his 'Birds of Amoorland;' and I am therefore not responsible for the authority. There are some birds so given which I cannot believe to be Japanese; these I have marked with notes of surprise. *Thaumalea picta* is certainly not a Japanese bird. I have, however, thought it best for the present to leave them as they stand for the criticism of future explorers.

* See *The Ibis*, 1862, p. 309, and 1863, p. 97.

AMOORLAND.		JAPAN.		FORMOSA.	
No.		No.		No.	
1	<i>Aquila naevia</i> , <i>Briss.</i>	1	<i>Aquila chysaetos</i> , <i>L.?</i>		
2	<i>Haliaetos albicilla</i> , <i>L.</i>	2	<i>Haliaetos albicilla</i> , <i>L.</i>		
3	— <i>pelagica</i> , <i>Pall.</i>	3	— <i>pelagica</i> , <i>Pall.</i>		
4	<i>Pandion haliaetus</i> , <i>L.</i>	4	<i>Pandion haliaetus</i> , <i>L.</i>	1	<i>Pandion haliaetus</i> , <i>L.</i>
		5	<i>Buteo polioyenus</i> , <i>T. & S.</i>	2	<i>Buteo japonicus</i> , <i>T. & S.</i>
		6	— <i>japonicus</i> , <i>T. & S.</i>		
		7	— <i>hemilasius</i> , <i>T. & S.</i>		
		8	<i>Pernis apivorus</i> , <i>L.</i>		
5	<i>Milvus melanotis</i> , <i>T. & S.</i>	9	<i>Milvus melanotis</i> , <i>T. & S.</i>	3	<i>Milvus melanotis</i> , <i>T. & S.</i>
6	<i>Falco candicans</i> , <i>Gmel.</i>	10	<i>Falco candicans</i> , <i>Gmel.</i>		
7	— <i>peregrinus</i> , <i>L.</i>	11	— <i>peregrinus</i> , <i>L.</i>	4	<i>Falco peregrinus</i> , <i>L.</i>
8	— <i>subbuteo</i> , <i>L.</i>				
9	— <i>vespertinus</i> , <i>L.</i>				
10	<i>Tinnunculus alaudarius</i> , <i>Briss.</i>	12	<i>Tinnunculus japonicus</i> , <i>Ep.</i>	5	<i>Tinnunculus japonicus</i> , <i>Ep.</i>
				6	<i>Spizaetos orientalis</i> , <i>T. & S.</i>
11	<i>Astur palumbarius</i> , <i>L.</i>	13	<i>Astur palumbarius</i> , <i>L.</i>		
12	<i>Accipiter nisus</i> , <i>L.</i>	14	<i>Accipiter nisus</i> , <i>L.</i>	7	<i>Accipiter gularis</i> , <i>T. & S.</i>
		15	— <i>gularis</i> , <i>T. & S.</i>	8	<i>Circus spilonotus</i> , <i>Kaup</i>
13	<i>Circus cyaneus</i> , <i>L.</i>	16	<i>Circus cyaneus</i> , <i>L.</i>		
		17	— <i>aeruginosus</i> , <i>L. (Blakiston)</i>		
14	<i>Nyctea nivea</i> , <i>Daud.</i>				
15	<i>Glaucidium passerinum</i> , <i>L.</i>	18	<i>Ninox japonicus</i> , <i>T. & S.</i>	9	<i>Ninox japonicus</i> , <i>T. & S.</i>
				10	<i>Athene pardalota</i> , <i>Swinhoe</i>
16	<i>Asio otus</i> , <i>L.</i>				
17	— <i>brachyotus</i> , <i>L.</i>	19	<i>Asio brachyotus</i> , <i>L.</i>		
		20	<i>Scops semitorques</i> , <i>T. & S.</i>	11	<i>Scops semitorques</i> , <i>T. & S.</i>
		21	— <i>japonicus</i> , <i>T. & S.</i>		
18	<i>Bubo maximus</i> , <i>Siebold</i>	22	<i>Ulula rufescens</i> , <i>T. & S.</i>	12	<i>Bubo caligatus</i> , <i>Swinhoe</i>
19	<i>Ulula uralensis</i> , <i>Pall.</i>				
20	<i>Nyctale funerea</i> , <i>Lath.</i>	23	<i>Syrnium aluco</i> , <i>L. (Temminck)</i>		
		24	<i>Strix flammea</i> , <i>L. (Temminck)</i>		

AMOORLAND.	No.	JAPAN.	No.	FORMOSA.	No.
<i>Nyctale barbata</i> , <i>Pall. (Midd.)</i>	21	.....		.....
<i>Caprimulgus jotaka</i> , <i>T. & S.</i>	22	.....	25	<i>Caprimulgus stictomus</i> , <i>Swinhoe</i>	13
.....		.....		<i>Cypselus vittatus</i> , <i>T. & S.</i>	14
.....		.....		— <i>subfurcatus</i> , <i>Blyth</i>	15
<i>Acanthylis caudacuta</i> , <i>Lath.</i>	23	.....		.....
<i>Upupa epops</i> , <i>L.</i>	24	.....	26	.....
<i>Cuculus canorus</i> , <i>L.</i>	25	.....	27	<i>Cuculus canorus</i> , <i>L.</i>	16
.....		.....		— <i>kelungensis</i> , <i>Swinhoe</i>	17
.....		.....		<i>Centropus viridis</i> , <i>Scop.</i>	18
<i>Hierococyx fugax</i> , <i>Horsf.</i>	26	.....		.....
<i>Yunx torquilla</i> , <i>L.</i>	27	.....	28	.....
<i>Gecinns canus</i> , <i>L.</i>	28	.....	29	<i>Gecinns tancola</i> , <i>Gould</i>	19
<i>Dryocopus martius</i> , <i>L.</i>	29	.....	30	.....
<i>Picus major</i> , <i>L.</i>	30	.....		.....
— <i>minor</i> , <i>L.</i>	31	.....		.....
— <i>leuconotus</i> , <i>Bechst.</i>	32	.....	31	<i>Picus insularis</i> , <i>Gould</i>	20
.....		.....		— <i>kaleensis</i> , <i>Swinhoe</i>	21
.....		.....		<i>Megalæma nuchalis</i> , <i>Gould</i>	22
<i>Aperternus tridactylus</i> , <i>L.</i>	33	.....		.....
.....		.....	33	<i>Halcyon coromandelianus</i> , <i>Scop.</i>	23
.....		.....	34	<i>Alcedo bengalensis</i> , <i>Lath.</i>	24
<i>Alcedo bengalensis</i> , <i>Lath.</i>	34	.....	35	.....
.....		.....	36	.....
.....		.....	37	.....
<i>Certhia familiaris</i> , <i>L.</i>	35	.....	38	.....
<i>Sitta europæa</i> , <i>L. (?)</i>	36	.....	39	<i>Parus castaneiventris</i> , <i>Gould</i>	25
.....		.....	40	.....
.....		.....	41	.....
<i>Parus ater</i> , <i>L.</i>	37	.....	42	.....
— <i>cyanus</i> , <i>Pall.</i>	38	.....	43	.....
— <i>kamtschatkensis</i> , <i>Bp.</i>	39	.....	44	.....
<i>Mecistura caudata</i> , <i>L.</i>	40	.....		.....
.....		.....		<i>Alcippe morrisonia</i> , <i>Swinhoe</i>	26
.....		.....		— <i>brunnea</i> , <i>Gould</i>	27

AMOORLAND.		JAPAN.		FORMOSA.	
No.		No.		No.	
41	<i>Alauda arvensis</i> , L.				<i>Alauda cœlix</i> ox, <i>Swinhoe</i>
42	<i>Otocorys alpestris</i> , L.		<i>Alauda japonica</i> , T. & S.		
43	<i>Anthus aquaticus</i> , <i>Bechst.</i> (<i>Midd.</i>)!		<i>Otocorys alpestris</i> , L.		
44	— <i>cervinus</i> , <i>Pall.</i> (<i>Midd.</i>)		! <i>Anthus aquaticus</i> , <i>Bechst.</i> (<i>Temm.</i>)		
45	— japonicus, T. & S.		— <i>cervinus</i> , <i>Pall.</i> (<i>Temm.</i>)		<i>Anthus cervinus</i> , <i>Pall.</i>
46	— <i>agilis</i> , <i>Sykes</i>		— japonicus, T. & S.		— <i>agilis</i> , <i>Sykes</i>
47	<i>Budytes flava</i> , L.		— <i>agilis</i> , <i>Sykes</i>		— <i>richardi</i> , <i>Vieill.</i>
48	<i>Motacilla boarula</i> , L.		? <i>Budytes rayii</i> , <i>Yarr.</i>		<i>Budytes taivana</i> , <i>Swinhoe</i>
49	— <i>ocularis</i> , <i>Swinhoe</i>		<i>Motacilla boarula</i> , L.		<i>Motacilla boarula</i> , L.
50	— <i>luzoniensis</i> , <i>Scop.</i>		— japonica, <i>Swinhoe</i>		— <i>ocularis</i> , <i>Swinhoe</i>
51	<i>Cinclus pallasi</i> , <i>Temm.</i>		<i>Cinclus pallasi</i> , <i>Temm.</i>		— japonica, <i>Swinhoe</i>
			<i>Microscelis amaurotis</i> , T. & S.		— <i>luzoniensis</i> , <i>Scop.</i>
					<i>Cinclus pallasi</i> , <i>Temm.</i>
					<i>Hypsipetes nigerrimus</i> , <i>Gould.</i>
					<i>Ixos sinensis</i> , <i>Gmel.</i>
					<i>Spizixos semitorques</i> , <i>Swinhoe</i>
					<i>Oreocincla hancii</i> , <i>Swinhoe</i>
					<i>Turdus chrysolais</i> , T. & S.
52	<i>Turdus chrysolais</i> , T. & S.		— <i>cardis</i> , T. & S.		— <i>daulias</i> , T. & S.
53	— <i>daulias</i> , <i>Temm.</i>		— <i>chrysolais</i> , T. & S.		— <i>pallens</i> , <i>Pall.</i>
			— <i>daulias</i> , T. & S.		— <i>fuscatus</i> , <i>Pall.</i>
			— <i>pallens</i> , <i>Pall.</i>		— <i>naumanni</i> , <i>Temm.</i>
54	— <i>fuscatus</i> , <i>Pall.</i>		— <i>naumanni</i> , <i>Temm.</i> (<i>Blakiston</i>)		
55	— <i>naumanni</i>		<i>Merula mandarina</i> , <i>Bp.</i>		<i>Petrocincla manilensis</i> , <i>Bodd.</i>
			<i>Petrocincla manilensis</i> , <i>Bodd.</i>		<i>Oriolus chinensis</i> , L.
					<i>Psaropholus ardens</i> , <i>Swinhoe</i>
					<i>Herpornis xanthochlora</i> , <i>Hodgs.</i>
					<i>Garrulax taivanus</i> , <i>Swinhoe</i>
					— <i>ruficeps</i> , <i>Gould.</i>

AMORLAND.	No.	JAPAN.	No.	FORMOSA.	No.
.....		.....		Garrulax pœcilorhynchus, <i>Gould</i>	53
.....		.....		Pomatorhinus musicus, <i>Swinhoe</i>	54
.....		.....		— erythrocnemis, <i>Gould</i>	55
.....		.....		Myiophonus insularis, <i>Gould</i>	56
Pericrocotus cinereus, <i>Lafresn.</i>	57	.....		Pericrocotus cinereus, <i>Lafres.</i>	57
.....		.....		— griseigularis, <i>Gould</i>	58
.....		.....		Graucalus rex-pineti, <i>Swinhoe</i>	59
Dicrurus macrocerus, <i>Lath.</i>	58	.....		Dicrurus macrocerus, <i>Lath.</i>	60
.....		.....		Chaptalia brauneana, <i>Swinhoe</i>	61
Lanius excubitor, <i>L. (Midd.)</i> !	59	.....		Lanius shach, <i>L., var.</i>	62
— phoenicurus, <i>Pall.</i>	60	.....		— lucionensis, <i>Strickl.</i>	63
Hirundo gutturalis, <i>Scop.</i>	61	.....		Hirundo gutturalis, <i>Scop.</i>	64
— daurica, <i>L.</i>	62	.....		— daurica, <i>L., var.</i>	65
Chelidon lagopoda, <i>Pall.</i>	63	.....		.....	66
Cotyle riparia, <i>L.</i>	64	.....		Cotyle sinensis, <i>J. E. Gray</i>	66
Hemichelidon sibirica, <i>Gmel.</i>	65	.....		.....	67
Butalis laterostris, <i>Raffles</i>	66	.....		Butalis laterostris, <i>Raffles.</i>	67
.....		.....		— griseisticta, <i>Swinhoe.</i>	68
.....		.....		.....	69
.....		.....		Tchitreá principalis	70
.....		.....		Myiagra azurea, <i>Bodd.</i>	70
.....		.....		.....	71
Cyanoptila cyanomelæna, <i>T. & S.</i>	67	.....		.....	71
Erythrosterma leucura, <i>Gmel.</i>	68	.....		.....	72
— luteola, <i>Pall.</i>	69	.....		.....	72
Ianthia cyanura, <i>Pall.</i>	70	.....		.....	73
Ruticilla aureora, <i>Pall.</i>	71	.....		.....	74
.....		.....		.....	75
Saxicola saltatrix, <i>Mén. (Midd.)</i>	72	.....		.....	76
Pratincola indica, <i>Blyth</i>	73	.....		.....	76
Accentor alpinus, <i>Gmel.</i>	74	.....		.....	77
.....		.....		.....	78
.....		.....		.....	79
.....		.....		.....	80
.....		.....		.....	80

AMORLAND.		JAPAN.		FORMOSA.	
No.		No.		No.	
94	<i>Pyrrhula orientalis</i> , T. & S.	99	<i>Pyrrhula orientalis</i> , T. & S.	91	<i>Munia acuticauda</i> , Hodg.
95	<i>Uragus sibiricus</i> , Pall.	100	<i>Uragus sanguinolentus</i> , T. & S.	92	— <i>topela</i> , Swinhoe.
96	<i>Coccothraustes vulgaris</i> , Ray	101	<i>Eophona personata</i> , T. & S.	93	<i>Passer montanus</i> , L.
97	<i>Loxia curvirostra</i> , L.	102	<i>Coccothraustes vulgaris</i> , var.	94	— <i>russatus</i> , T. & S.
98	— <i>leucoptera</i> , Gmel.	103	<i>Loxia curvirostra</i> , L.	95	<i>Euspiza aureola</i> , Pall.
99	<i>Passer montanus</i> , L.	104	— <i>leucoptera</i> , Gmel. (Temm.)	96	— <i>sulphurata</i> , T. & S.
100	<i>Euspiza rutila</i> , Pall.	105	<i>Munia acuticauda</i> , Hodg. (Swinhoe)	97	<i>Emberiza spodocephala</i> , Pall.
101	— <i>aureola</i> , Pall.	106	<i>Passer montanus</i> , L.	98	— <i>ciopsis</i> , Bp.
102	<i>Emberiza pityornis</i> , Pall.	107	— <i>russatus</i> , T. & S.	99	— <i>fucata</i> , Pall.
103	— <i>spodocephala</i> , Pall.	108	<i>Euspiza rutila</i> , Pall.	100	<i>Sturnus cineraceus</i> , T. & S.
104	— <i>ciopsis</i> , Bp.	109	— <i>sulphurata</i> , T. & S.	101	<i>Heterornis sinensis</i> , Gmel.
105	— <i>rustica</i> , Pall.	110	<i>Emberiza spodocephala</i> , Pall.	102	<i>Acridotheres cristatellus</i> , L.
106	— <i>polaris</i> , Midd.	111	— <i>ciopsis</i> , Bp.	103	<i>Pica media</i> , Blyth.
107	— <i>pusilla</i> , Pall.	112	— <i>rustica</i> , Pall.	104	<i>Urocissa caerulea</i> , Gould.
108	<i>Schoenicola passerina</i> , Pall.	113	— <i>fucata</i> , Pall.	105	<i>Dendrocitta sinensis</i> , var.
109	<i>Plectrophanes nivalis</i> , L.	114	— <i>variabilis</i> , Temm.		
110	<i>Centrophanes lapponica</i> , L.	115	— <i>elegans</i> , T. & S.		
111	<i>Sturnus cineraceus</i> , T. & S.	116	<i>Schoenicola passerina</i> (<i>Blakiston</i>)		
112	<i>Heterornis dauricus</i> , Pall.	117			
113	<i>Pica caudata</i> , Ray	118	<i>Heterornis pyrrogenys</i> , T. & S.		
114	<i>Cyanopica cyanea</i> , Pall.	119	<i>Pica caudata</i> , var.		
115	<i>Perisoreus infaustus</i> , L.	120	<i>Cyanopica cyanea</i> , var.		

AMORLAND.	No.	JAPAN.	No.	FORMOSA.	No.
Garrulus brandti, <i>Eversm.</i>	116	Garrulus brandti, <i>Eversm. (Blakiston)</i>	121	Garrulus insularis, <i>Gould</i>	106
Lycos dauricus, <i>Pall.</i>	117	— japonicus, <i>T. & S.</i>	122	.....	.....
— neglectus, <i>Schleg.</i>	118	Lycos dauricus, <i>Pall.</i>	123	.....	.....
Corvus sinensis, <i>Gould</i>	119	— neglectus, <i>Schleg.</i>	124	.....	.....
— japonensis, <i>Bp.</i>	120	Corvus sinensis, <i>Gould</i>	125	Corvus sinensis, <i>Gould</i>	107
— corax, <i>L.</i>	121	— japonensis, <i>Bp.</i>	126	.....	.....
— pastinator, <i>Gould</i>	122	— pastinator, <i>Gould.</i>	127	.....	.....
Nucifraga caryocatactes, <i>L.</i>	123	Nucifraga caryocatactes, <i>L. (Blak.)</i>	128	.....	.....
Turtur rupicola, <i>Pall.</i>	124	Columba rupestris, <i>Pall. (Temm.)</i>	129	.....	.....
— risoria, <i>L.</i>	125	Turtur rupicola, <i>Pall.</i>	130	Turtur rupicola, <i>Pall.</i>	108
.....	.....	.....	.....	— chinensis, <i>Scop.</i>	109
.....	.....	.....	.....	— humilis, <i>Temm.</i>	110
.....	.....	.....	.....	Treron formosae, <i>Swinhoe</i>	111
.....
Lagopus alpinus, <i>Nilss. (Midd.)</i>	126	Vinago sieboldii, <i>T. & S.</i>	131	.....	.....
— albus, <i>Gmel.</i>	127	Carpophaga ianthina, <i>T. & S.</i>	132	.....	.....
Tetrao urogallus, <i>L. (Pallas)</i>	128	Lagopus mutus, <i>L. (Schlegel)</i>	133	.....	.....
— urogalloides, <i>Midd.</i>	129	.....	.....	.....	.....
tetrix, <i>L.</i>	130	.....	.....	.....	.....
— franklinii, <i>Dougl.</i>	131	.....	.....	.....	.....
— bonasia, <i>L.</i>	132	Tetrao bonasia, <i>L. (Blakiston)</i>	134	.....	.....
Phasianus torquatus, <i>Gmel.</i>	133	Phasianus versicolor, <i>T. & S.</i>	135	Phasianus torquatus, var.	112
.....	— sömmeringii, <i>Temm.</i>	136
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[From THE IBIS, January, 1861.]

Notes on the Ornithology of Hongkong, Macao, and Canton, made during the latter end of February, March, April, and the beginning of May, 1860. By ROBERT SWINHOE, of H. B. M.'s Consular Service.

— K

HONGKONG is set down as distant 280 miles by sea from Amoy, and, being in latitude 22° 15', falls well within the tropics. We ought therefore naturally to expect more interesting feathered forms than appear in the subjoined list; yet, if you exclude the *Micronisus gabar* (which may also occasionally be found at Amoy) and the large *Ketupa*, no bird came within my observation about Hongkong and its neighbouring main which does not occur somewhere in the neighbourhood of Amoy.

At Macao I fell in with two species I had not seen before;

only one of these I procured, which I have marked *Larvivora* sp. ?.

Canton, with its fine old trees towering everywhere throughout the town, and its well-wooded surrounding country, literally swarms with birds, and I can safely assert that no place on this coast equals it for the number and variety of its Avifauna. If I had spent a few months there instead of a week or two, I could have swelled my collection into colossal proportions. Canton is distant about ninety-eight miles by river from Hongkong, and is in the same latitude as Calcutta.

1. PANDION HALIAETUS (Linn.). Osprey.

As we steamed out of Amoy, this bird was seen soaring over the bay, and at the entrance to Swatow it was seen again, seated on a fishing-stake. In Hongkong I have often watched the Ospreys gradually ascending into the air in large sweeping circles, when their rounded tails and peculiar upward inclination of the wings at once distinguish them from the Kites which abound in the harbour. Pigeons before alighting have this same peculiarity of inclining the wings upwards; and Swifts (*Cypselus affinis*, Gray) practise the same as they dart and gambol through the air before roosting, uttering the while a quick succession of sharp notes. When the Osprey is seen flying overland with slow heavy flaps, he has a very *Buteonine* aspect.

I was told that a large *Sea-Eagle* had been occasionally seen at Hongkong, but, from his wariness and inaccessibility, no one had succeeded in getting a shot at him. On one occasion, in Amoy, I saw a very large bird of prey sitting in a tree, which I took to be a *Sea-Eagle*. He was at least 200 yards off, yet took alarm at my appearance.

- | | |
|-------------------------------------|-----------------------------------|
| 2. FALCO PEREGRINUS, Linn. | } Both observed near
Hongkong. |
| 3. TINNUNCULUS ALAUDARIUS (Briss.). | |
| 4. BUTEO JAPONICUS, Bp.* | Japanese Buzzard. |

A pair frequented the Happy Valley, Hongkong. I have seen them early in the morning, pursuing each other with loud screams.

* Perhaps rather paler than *B. vulgaris*, but hardly specifically distinct, according to Mr. Blyth (J. A. S. B. xxx. p. 95).—P. L. S.

5. *MILVUS GOVINDA*, Sykes*. Brahminy Kite.
Common.

6. *MICRONISUS* — ?†. Small Blue Sparrow-Hawk.

We were watching some Swallows (*H. gutturalis*) sporting over a pond, when suddenly a small short-winged Hawk appeared among them, and would certainly have caught one had not one of my comrades brought him down with a broken wing. The little fellow was much excited, and fought hard with his bill and claws for life. He was a much handsomer bird than *M. badius*, though about the same size; blue-grey above; beneath banded with dark undulating lines; the flanks and belly deeply washed with buff ochre. The bill was blue-black; the cere, iris, and legs golden yellow, with black claws. The specimen was accidentally lost, being served up at table by the Chinese servant in mistake for a pigeon.

This same species is by no means uncommon in the neighbourhood of Hongkong, and you often see them even over the streets of Victoria, poising with almost motionless wing, while the tail is continually opened and shut like a fan. The length of tail and shortness of wing at once distinguish this bird from the Wind-hover or Kestrel, which species, so common at Amoy, seldom fell under my notice here. At Canton, several of these small Hawks were nesting in a grove of pines. The nests were small and cup-shaped, and placed high up, near the tree top. I was unable to procure either the eggs or young, nor did I succeed in securing a second specimen of the mature bird.

7. *ATHENE* — ?‡.

A small brown Owl, with transverse yellowish bars and spots. This bird was brought to me alive by a Chinese at Canton, and

* Mr. Blyth (J. A. S. B. xxx. p. 95) seems to consider the Chinese Kite, *Milvus melanotis* of the 'Fauna Japonica,' as distinct; but Mr. Gurney informs me that his Chinese specimens are not different from *M. govinda* of India.—P. L. S.

† This is probably *Micronisus soloënsis* (Horsf.).—P. L. S.

‡ This *Athene* seems to be *Noctua cuculoides*, Vigors (Gould's Cent. pl. 4), already recognized by Blyth (Cat. Mus. As. Soc. p. 39) as occurring in Chusan.—P. L. S.

is markedly smaller than birds similarly coloured received from Foochow. The native name is *Ning-long-chay*. I find that the bird procured, which I forward for Mr. Sclater's examination, is a mature specimen; and it therefore appears that either this species has a second year's moult, when it loses all the yellowish bands and markings, or that I have confounded two species under one denomination.

I extract the notes in my journal made on the fresh mature male above mentioned:—Bill greenish or dusky yellow. Iris clear golden king's yellow. Legs chrome-yellow, with stiff bristles; claws pale yellowish at the base and brown towards the tips. Crura of furculum only ossified for about one-half of their length, and joined by a cartilaginous arch. Tibial tendons very rigid. Testicles not large, somewhat kidney-shaped, and yellowish. Proventriculus $\frac{6}{8}$ in. across; gizzard round and flattened, flanked on each side with a strong radiating muscle, about $1\frac{2}{8}$ in. in diameter, and lined inside with a fixed rugose cuticle. Intestines 16 inches long: cæca situate about $1\frac{1}{8}$ in. from anus; right cæcum $2\frac{2}{8}$, left 2 in. in length, both enlarging at their ends into black, semitransparent bulbs.

8. OTUS BRACHYOTUS (Gm.). Cantonese, "*Maou taou ying*" (Cat's-head Hawk).

This tawny Owl, with black spots and well-defined facial disc, was also brought alive to me in Canton. It is a species I have never before met with in China. Length $14\frac{1}{2}$ in.; wing 18 in. from curvature; tail 6. Bill black, with a pale tip. Iris bright golden yellow. Legs and feet covered with ochreous feathers, with the ends of the toes naked and of a pale blackish flesh-colour; claws sharp and blackish brown. Tibial tendons very rigid. Testicles like two small white eggs, placed with their ends pointing in different directions. Proventriculus 1 in. in length by $\frac{5}{8}$ in breadth, granulated, and contracting somewhat at the mouth of the gizzard, which is roundish, about 1 in. in diameter, soft and flabby, lined with a fixed network-furrowed cuticle. The stomach contained a thick yellow juice and a few *fish-bones*. Intestines $18\frac{1}{2}$ in. long: cæca about 1 in. from anus; left cæcum $2\frac{3}{8}$, right $2\frac{3}{8}$ in. in length, the first bulging much more at the end than the second.

9. *KETUPA CEYLONENSIS* (Gm.)*. Crab Owl.

This magnificent Horned Owl, so like *Bubo maximus*, but at once distinguishable from that bird by the naked tarsi, is a constant tenant of the dark rocky ravines of Hongkong. The European cemetery in the Happy Valley is separated from the race-course by a broad road, and bounded in the front by a high wall with a central gateway. At the rear of this enclosure, which abounds in graceful tombs and funereal trees, rises a high hill, well-wooded, and cleft by a ravine tangled over by most luxuriant vegetation. In this lovely spot are found some of the choicest ferns and plants for which Hongkong is justly celebrated. Happening to pass one day, after I had stood enjoying the glorious view, I rambled up a narrow path, gun in hand. A Bulbul flew past me, and then another; and, as they perched within gunshot on a bush, I fired at them, when, to my astonishment, from under a gigantic black rock which rested on a smaller one, thus forming a natural cave, out flew a great Owl, and alighted on a branch close above me, with raised crest and ruffled feathers, evidently much bewildered and startled by the report of the gun. He was not, however, more astonished than myself, and by the time I had recovered myself he had also recovered himself, and, seeing me standing near, made off to the other side of the hill. I saw him settle on a tree, and thinking that an Owl by day was an easy prey, I pursued. But his eyes were too good; I could not get near him. I thereupon returned to his roost, and found, by the feathers and old casts, that the ledge underneath the rock must have been long tenanted. But what surprised me most was to find that the casts consisted chiefly of morsels of crab-shells and claws, together with a few bones of some small murine animals. Two days afterwards I again put the Owl out of the same haunt, but somehow managed to miss him.

* Certainly this species, and not *K. javanica*, as supposed by Mr. Swinhoe. Mr. Swinhoe speaks of the iris of *Ketupa ceylonensis* as "orange." I am informed by Mr. J. H. Gurney, that, in a specimen which was in the Zoological Society's Gardens some years since, the irides were of a very bright clear and pure yellow, without any tint of orange. It would appear therefore that the colouring of the irides in this species varies as it does in *Bubo maximus*, the very old individuals of which have much redder irides than the young ones.—P. L. S.

The shot alarmed him ; he never returned. Residents assure me that this bird is of frequent occurrence there, and that at night-time they may often be seen, seated on the tops of the houses facing the harbour. From the casts and excrement being frequently met with, I should certainly imagine that they were pretty abundant.

On my return from Macao I was fortunate enough to procure the specimen that I send herewith. It was in this wise. Mr. Wilford (the botanist sent out by Sir William Hooker) was out with me for a ramble in the neighbourhood of Jardine, Matheson and Co.'s grounds, close to a ravine, where a lot of small Chinese boys had gathered round us to see our sport. They pointed to some Kites that were diving at one another some distance over our heads, and for the amusement of the small boys, I fired at them twice. The shot must have tickled them, for they dropped the bone of contention, a putrid duck's head. But the report of the discharges reverberating along the ravine startled a dozing *Ketupa*, and out he came from his roost, and settled on a rock a long way up the hill. He flew out so quietly that we should probably not have observed him had it not been for the Kites, who soon spied him, and kept hovering over him, and flying down at him. Not enjoying their indignities, and observing that all near was pretty safe, the Owl quietly dropped under cover, as he evidently fancied, unobserved by us. Upon this I rushed up the hill, and got a good position on a large rock above the spot where he had sunk to rest, and left my comrade and his noisy juvenile Celestials to follow. As these clambered up the hill, they chatted and laughed, and made a great noise. The Owl, finding them too near, bounced out, and flapped as hard as he could up the ravine, past the rock on which I was sitting, whence I got an easy shot at him, and tumbled him over. The little boys soon scrambled after him, and drew out the magnificent fellow. I was hitherto under the impression that he was *Bubo maximus*, which I have met with at Amoy ; but imagine my joy, when, by the naked tarsus, I discovered a totally distinct bird.

He measured $21\frac{1}{2}$ in. in length ; wing from flexure 16 in. ; expanse about 3 feet 9 inches. Tail $7\frac{1}{2}$ in., somewhat graduated

and rounded, the outermost feathers being about 1 in. shorter than the central; the 4th and 5th remiges nearly equal, and longest in the wing. Eye about 1 in. in diameter; iris bright orange-yellow; skin round the eye broad, and purplish brown. Bill pale dingy greenish yellow, blackish on the apical half of the upper mandible, but not so at the tip. Inside of mouth pale fleshy king's-yellow. Tongue broad, fleshy, and notched at the tip. Legs of a dusky yellow, covered with small hexagonal scales, and a few broad scutella at the end of the toes; the soles rough, and covered with pointed asperities; outer toe reversible; claws bluish black, with pale yellowish bases, not much curved, and very blunt from use. Ear oval, $\frac{5}{8}$ in. in length, exposing the internal aperture in the half farthest from the eye. Feathery horns not very large or prominent.

The cesophagus starts from the glottis very wide, gradually narrowing to $\frac{4}{8}$ in., then for $1\frac{1}{2}$ in. becoming only $\frac{3}{8}$ in. in width. The proventriculus follows (length $1\frac{1}{2}$ in., largest diameter $\frac{5}{8}$): gizzard $1\frac{1}{2}$ in. long, somewhat conical, thick and hard; inside lining thick and yellow, with broad rugæ; empty. Cæca situated $2\frac{1}{2}$ in. from anus; right cæcum $4\frac{2}{8}$, left $3\frac{1}{2}$ in. in length, both bulging at their extremities into large sacs. Intestine *in toto* 44 inches long.

10. Scors — ?*. Cantonese, “*Se-chee-ying.*”

This pretty Horned Owl was brought to me alive at Canton, and, from the bareness of its breast and belly, had evidently been caught in the nest. It was very tame, and used to afford amusement to spectators by the odd way in which it lowered its head, swinging to and fro with expanded wing and ruffled feathers, while its disproportionately large dark eyes glared at the finger pointed towards it, and the bill continually snapped. In the daytime, when undisturbed, it remained in easy repose; but at night it flapped about in its place of confinement, and vainly sought hard to force a passage through the bars.

In the spring of 1859, my friend Mr. Holt, at Foochow, sent me two specimens of the same species from that place, but they appeared somewhat larger in size than the present one.

* Probably *Scops lempiji* (Horsf.), but rather dark in plumage.—P. L. S.

Length $8\frac{1}{2}$, wing 7, tail in. $3\frac{1}{10}$ Bill pale flesh-grey, with a pale yellowish rim to the mandibles. Eyes very large, about $\frac{8}{10}$ in. in diameter; iris golden burnt-sienna, but so narrow that this colour is seldom visible, the immense pupil filling nearly all the space between the lids. Skin round the eye madder-brown. Ear-conch very large and oval, nearly $\frac{3}{8}$ in. in length by about $\frac{4}{8}$ in width, the lunar-shaped orifice occupying about one-third of the oval on the part distant from the eye; colour of the conch-rim yellowish, inside light blue-grey. Legs feathered to the end of tarsus. Toes naked, light brownish flesh-colour; claws light brownish grey, with blackish tips.

There were numerous eggs in the ovary; oviduct folded zig-zag, semitransparent, and about 4 inches in length, terminating in a distinct cloaca. Proventriculus granulated, somewhat enlarging towards the gizzard, which was flabby and oval, about $\frac{1}{2}$ in. in length by $1\frac{3}{8}$ in breadth, lined inside with a fixed rugose cuticle of a yellow colour. The cæca were long and bulging at their ends, the left longer than the right; but unfortunately I have lost the measurements of these parts.

11. CAPRIMULGUS — ?

Probably the same species as that procured at Amoy. I did not obtain a specimen. I saw a pair in March, gamboling about the top of Monte Guya, in Macao, just after the sun had set. Mr. Bowring informed me that in the fall of the year they occurred abundantly in Hongkong, and might be seen in numbers every evening hawking after insects in the valley.

12. CAPRIMULGUS — ?

Our second species, with naked tarsus*. One was shot at Stanley, Hongkong, which was shown to me.

13. CYPSELUS AFFINIS, J. E. Gray.

I saw a small party of these one afternoon at Hongkong; but they do not appear to be permanent residents at any of the three places, as at Amoy.

14. HIRUNDO GUTTURALIS, Scop.

A few arrived in February; but in March they were to be

* This will probably be a *Lyncornis*. *L. cerviniceps*, Gould, is said to be from China.—P. L. S.

found everywhere, and soon commenced building-operations. It is the only and prevailing species. This bird has only *one* small cæcum.

15. EURYSTOMUS ORIENTALIS (Linn.). Cantonese, "*Leuh-ko-tsoey.*"

I had the pleasure of meeting a pair of these birds at Whampoa (the anchorage of Canton). While wandering under a group of lofty pines, I saw a bird sitting on a branch with head and body erect, while the tail and abdomen, from the shortness of its legs, seemed to lie along the branch. The red bill and brilliant green and blue plumage soon showed me what it was, as it flitted with quick and smooth flight into the open. It was presently joined by its mate, and they kept flying about, now resting on a thick bough, now again on the wing, circling round the clump of trees. They uttered occasionally a note not unlike the "*quack*" of our Goatsucker, which bird it also often resembled in flight, and in its habit of sitting for the most part along a branch instead of across it. They were rather shy of approach; so I had to take them on the wing, and was fortunate enough to secure the pair.

The male was larger than the female, and perhaps a little more brilliant in tints. The gizzard was oval, $1\frac{1}{2}$ in. long, $1\frac{1}{8}$ broad, and $\frac{7}{8}$ thick, slightly muscular, lined with a flesh-yellow moveable cuticle much wrinkled with rugæ, and containing insects—chiefly beetles and large bugs. Intestines somewhat fleshy, 19 in. long, and varying in thickness from $\frac{3}{8}$ to $\frac{1\frac{1}{2}}{8}$ in. Cæca $1\frac{1}{2}$ in. from anus; left $2\frac{3}{8}$, right $\frac{7}{8}$ in. in length, both bulging into black sacs at the apical third of their length.

16. HALCYON SMYRNENSIS (Linn.). Turquoise Kingfisher. Cantonese, "*Fe-tsoey.*"

Common.

17. ALCEDO BENGALENSIS, Gmel. Cantonese, "*Tow-yü-long.*"

Common.

18. CERYLE RUDIS (Linn.). Cantonese, "*Pun-tin-tso.*"

Common.

19. ORTHOTOMUS PHYLLORRAPHEUS, Swinh.

Abundant everywhere.

20. PRINIA SONITANS.

21. DRYMOICA EXTENSICAUDA.

22. CISTICOLA TINTINNABULANS.

23. ACROCEPHALUS MAGNIROSTRIS.

} All abundant, and evidently spending the summer in the south.

24. LUSCINIOPSIS CANTURIANS.

This interesting species of Warbler I first met with in Formosa during March 1855, when I was much struck by the resemblance of its habits to those of the White-throat (*Curruca cinerea*). I have since met with it at Amoy, but I think merely as a straggler. At Shanghai it was abundant, as also at Hongkong and Macao. In the last two places nearly every hedge or cluster of bushes had its *L. canturians*, creeping about unseen, and trolling out its abrupt song. When approached from the midst of its leafy retreat, it gives its alarm-note, consisting of a harsh "charr"; and if hard-pressed, quietly slips out the other side of the bush and flits to a further cover.

Bill wood-brown, with the edge of the upper mandible and the whole of the lower pale flesh-colour; inside of mouth chrome-yellow. Iris hazel. Legs pale brownish flesh-colour; claws wood-brown, paling on the soles.

25. LOCUSTELLA RUBESCENS, Blyth, J. A. S. B. xiv. p. 582 (?).

A Grasshopper-Lark alighted on the deck of the "White Cloud" on our way down the Canton River. It hopped into the saloon close to my feet, and I had the full opportunity of determining its species. It was evidently the same as that once procured at Amoy. I tried to secure it, but there were too many open windows in the saloon.

26. PHYLLOSCOPUS FUSCATUS, Blyth.

This little fellow I often observed, and feel sure that some at least nest near Canton.

27. REGULOIDES PROREGULUS (Pall.).

Very abundant in the fir-trees about Hongkong during February and March.

28. *REGULOIDES CHLORONOTUS*, Hodgs.

I watched for some time several of the former and one of this species of *Reguloides* pursuing a swarm of gnats in a small pine-plantation at Hongkong. The two birds resembled each other a good deal, and at a distance were not distinguishable; but as they were much busied with their occupation, I approached within a few paces. In the midst of their pursuit they would frequently give utterance to the melancholy protracted note "sweet," somewhat sharply emitted. But the *R. chloronotus* at times stopped, and, ruffling his feathers, struck up a little musical ditty not unlike that of the Willow-Wren (*Sylvia trochilus*). I could observe no difference in the common note of the two birds. The abundance of food in this particular spot no doubt was the cause of the large numbers of these birds to be found there; for on ordinary occasions you rarely meet with more than one of the *R. proregulus* at a time, or a pair of the *R. chloronotus*.

29. *COPSYCHUS SAULARIS* (Linn.). Cantonese, "*Chuy-se-tsa.*"
Common at Canton and Macao.

30. *PRATINCOLA INDICA*, Blyth.

Common. Seen in Hongkong as late as March.

31. *RUTICILLA AUREORA*, Pall.

A few seen.

32. *RUTICILLA*, sp. nov. ?

I mentioned in my "Ornithology of Amoy" the fact of a second species of *Ruticilla* occurring at times in that place. In Hongkong I had the good fortune to meet with several of them. For a few days in the first week of March they were pretty abundant in the hills around the valley; but after that they were not seen, so that they were evidently on their migrations. I procured two pairs, which I forward for Mr. Selater's examination*.

In fresh examples the bill and legs were black in both sexes; the iris deep blackish brown. The inside of the mouth was blackish flesh-colour in the male, and pale flesh-colour in the female. The tongue was ciliated at the end.

* These specimens are scarcely distinguishable from *Pratincola ferrea* (Hodgs.) of Upper India. I do not consider them different.—P. L. S.

These birds were fond of perching on the tops of bushes, where they would stand in very upright positions, often darting into the air to seize an insect, or to take up some worm or beetle from the ground. Their actions were all quick, and almost instantaneous. The tail was rarely moved, and then up and down slowly, or occasionally thrown up with Robin-like motion. This simple fact I think is sufficient to show that this species is not a typical Redstart, though it assimilates to that genus in the red tail and brown plumage of the female. The thick bill and grey plumage of the male, however, would perhaps show its tendency to the *Saxicola*. Its ordinary note is a subdued kind of rattling noise; but I have heard one, that stood still for several minutes at a time, keep on emitting at intervals a loud sharp note approaching to the syllable "pew."

33. LARVIVORA — ? — *

I send a wretched specimen of this bird, the only one I could procure. I have never met with it anywhere but at Macao, where it is not uncommon in wooded spots, hopping about on the ground amongst the undergrowth, and hence very difficult to shoot. When I first heard the note, I could scarcely believe it to be that of a bird, so like was it to the single chirp of the grasshopper; but, creeping on my hands and knees into the thicket, I got a view of the little fellow hopping about, and looking much like a Robin. He would sometimes shake his tail up and down; at others he would throw it up, expanding and closing it. When two of them came together, the sibilant note was repeated more hurriedly and loudly, and then much resembled the chirrup of a shrew mouse.

Bill leaden brown, paler on the edges. Inside of mouth pale flesh-yellow. Legs and claws pale flesh-colour. Iris deep brown.

34. PABUS MINOR, Temm. Cantonese, "Pak-pay shew-low."

Common everywhere; but the individuals appear to be somewhat larger than those at Amoy, and are in most cases quite grey on the back, a few only having a greenish-yellow tinge. I can

* This specimen appears to me to be a young bird of *Erythacus akahige* (Temm.), Fauna Japon. pl. 21 b; and Mr. Gould is of the same opinion.—P. L. S.

see no further difference to justify a separation ; but there seems a strong tendency towards *Parus cinereus* of Java.

35. *ZOSTEROPS JAPONICUS*, Temm. Cantonese, "*Sheong-shee*."

An abundant resident at Hongkong, where it may constantly be seen, roaming from tree to tree along the roads in small parties. Its well-blended tints of yellow and green, and the snow-white ring that encircles its sharp black eyes, may be seen to advantage by the observer that stands under the tree whereon these sprightly little fellows are exploring the twigs and leaves for small insects. On the 2nd of April I had the good fortune to discover its nest at the end of a bough of a large-leaved tree. It was attached to several leaf-stalks about 8 feet from the ground, and might at first sight have been mistaken for some insect's nest. It consisted of a small cup, composed of delicate grasses, spider's-web, and moss, and resembled much the nest of a Humming-bird. This pretty little structure contained two clear white eggs, one of which was slightly punctured. The nest and eggs I enclose to Mr. Sclater.

36. *MOTACILLA BOARULA*, Linn.

I frequently saw this bird, and from meeting individuals with food in the mouth, I feel sure they breed in Hongkong. A male and female, procured in summer plumage, I transmit for comparison with the European bird*.

37. *MOTACILLA LUZONIENSIS*, Scop.

This bird was pretty abundant in February ; and in March I witnessed the assembling of immense flocks on the tops of the houses, evidently preparing for migrating. A few weeks later they had all gone.

38. *MOTACILLA OCULARIS*, Swinh.

A resident species. I enclose a male in complete summer plumage for comparison with the Indian species of the Pied Wagtail group. It greatly resembles *M. lugubris*, but the grey back in summer is a sure distinction.

* These examples do not appear to differ from the European *M. boarula*.
—P. L. S.

39. *BUDYTES FLAVA*, Linn. ?

Several of these were feeding in some freshly-ploughed fields at Macao. I could only secure one, and am still in great doubt as to the exact species to which it belongs.

40. *ANTHUS THERMOPHILUS*, Hodgs.

Very abundant.

41. *ANTHUS AGILIS*, Sykes.

Numbers of this lively species are constantly to be met with among the grass and underwood beneath the small pine-trees at Hongkong. As you stroll through a plantation of these firs, the little fellows spring up with a note "see" (strongly sibilant), and with a curved flight alight on the branches above, on which they walk up and down, often uttering their note and shaking the tail. Each step you take puts up one at least, and as soon as you have passed, they drop quietly on to the ground behind you, and resume their pursuit of food.

42. *ANTHUS RICHARDI*, Vieill.

A few spend the summer in the south.

43. *MYIOPHONUS CÆRULEUS* (Scop.).

In the solitudes of the rocky ravines at Hongkong this bird may often be seen. It is very shy, and loves to stand for hours in the cavernous retreats afforded by the large black rocks that lie in massive confusion along the gullies or water-courses on the hill-sides. If you wish to see the bird, you have only to go to some solitary part of the valley, and, seating yourself on a rock, keep quite still for a few minutes. You are sure soon to see a Cavern-bird make his appearance on a rock near you. He at once spies you, and, flying off to a safer distance, appears to advantage on a neighbouring boulder. See! he runs up it; and, leaning his body forward on his long black legs, he keeps raising and depressing his tail, at the same time opening and shutting it in a shuffling manner. He then darts, with a single sharp note approaching a scream, among the leaves of a bush, the deep purple and blue of his plumage glistening in the sunlight. He has seized a caterpillar, and returns with it in his bill to the rock, whence he eyes the intruder on his solitude, while he beats and

devours his capture. He is then lost to view beneath the bushes under which he has just flown to search for earth-grubs. You watch on. Presently you see him emerge some distance up the hill, and darting with a straight flight, and screaming along the rocks, he disappears among them, where

“Speluncæque tegunt, et saxea procubat umbra.”

44. *GEOCICHLA*, n. sp.

The only specimen of this bird met with was at Whampoa, on the 18th of April. It was feeding on the ground, and on being disturbed, flew up to a tree with undulating flight, looking much like a *Campephaga*. The bill and legs were black; iris dark brown. General plumage smoke-grey, with a white belly and a distinct white eyebrow. I send the bird for Mr. Sclater's inspection*.

Gizzard heart-shaped, $\frac{7}{8}$ in. long by $\frac{5}{12}$ deep, somewhat muscular, with a moveable yellowish rugose epithelium, containing the remains of insects. Cæca $\frac{1}{2}$ in. from the anus; right one $\frac{1}{2}$ in. long, left $\frac{1}{3}$.

45. *TURDUS DAULIAS*, Temm.

46. *TURDUS PALLENS*, Pallas.

47. *TURDUS CHRYSOLAUS*, Temm.

48. *TURDUS CARDIS*, Temm.

These four Thrushes were seen in February and March, and appeared to be merely passengers.

49. *TURDUS* — ?

A species of Redwing, with grey-olive back in the male and orange-tinted flanks. Abundant, especially in Camoëns Garden, Macao, where they were nesting. I have occasionally met with them at Amoy; but, unfortunately, during my ramble in the south I managed to procure only a female. I enclose the bird for Mr. Sclater's inspection †.

* This bird is *Turdus sibiricus*, Gm., in nearly adult male plumage.—P. L. S.

† Evidently the young of the preceding (*Turdus cardis*), in the stage figured in the 'Fauna Japonica,' tab. 30. It agrees in structure com-

50. *TURDUS MANDARINUS*, Bp. Cantonese, "Woo-yay."

An abundant resident. Its sweet melody enlivens all the gardens. The male and female greatly assimilate, and in this respect differ much from the European Blackbird. Both sexes have yellow bills in the summer; but the plumage of the female is browner than that of the male. It builds chiefly on the boughs of the Banyan (*Ficus nitida*), making a nest scarcely distinguishable in aspect from that of the *T. merula*.

51. *PETROCOSYPHUS MANILLENIS* (Bodd.).

Numerous about the rocky hills.

52. *GARRULAX PERSPICILLATUS* (Gmel.). Cantonese, "Sampalow."

Frequents clumps of bamboos, where it chatters and makes a great noise, often bursting out into the loud notes "teo-teo," which appear to be the call from one to the other, and can be heard at a long distance. It is a great enemy to the eggs and young of small birds, and in habits approaches somewhat the Jays.

53. *LEUCODIOPTRON CANORUM* (Linn.).

This is the "Hwa-mei" or Song-Thrush of the Chinese. Mr. Blyth tells me that the true *Garrulax sinensis*, Linn., is from the Tenasserim Provinces. A few "Hwa-meis" may constantly be heard singing among the bushes on the almost precipitous sides of the lofty hills of Hongkong.

54. *ORIOULUS CHINENSIS*, Linn. (*O. acrorhynchus*, Vig.) Cantonese, "Wong-gang."

This Oriole occurred plenteously at Canton, and, from comparison of specimens, I find that both sexes vary considerably in size, in the height of the culmen of the bill, and in the extent of the yellow and black on the wings and tail, hence affording satisfactory proof of the identity of the two species, *O. sinensis* and *O. acrorhynchus*. I send specimens of both the supposed species for comparison*.

pletely with a male *Turdus cardis* in Mr. Gould's collection. It will be interesting to know if these birds really breed in this plumage.—P. L. S.

* Mr. Swinhoe's ten specimens all appear to be referable to one species—without doubt the true *O. chinensis*. But it is still necessary to examine

55. *PYCNONOTUS OCCIPITALIS*, Temm. Cantonese, "Pak-taou long."

An abundant resident.

56. *PYCNONOTUS CHRYSORRHODES* (Lafr.).

These are of a more roving disposition than the foregoing, and may often be met with in small parties on the hills, flying one after another from bush to bush. They have a loud chattering note, uttered while roving about; but the male at times, seated quietly on a branch, gives vent to a succession of sweet notes, some of which are very rich and full. I observed numbers of these Bulbuls, as well as the preceding, on the Tallow-tree (*Stillingia sebifera*), feeding on its ripe berries.

57. *PYCNONOTUS JOCOSUS* (Linn.).

This is evidently the same bird as that found in Bengal, and is described as *Turdus sinensis* in Shaw's 'Zoology,' from a Chinese drawing. It is not found in either Hongkong or Macao, but is very abundant in the neighbourhood of Canton, where numbers of them were to be seen in April, springing about over the large red flowers of the gigantic leafless *Bombax malabaricum*. They were at once to be distinguished by their peculiar voices; but their lofty curled and pointed crests gave them a very marked appearance.

58. *TCHITREA PRINCIPALIS* (Temm.).

This bird I cannot help thinking is not *T. principalis*, but a distinct species*. A female that I sent home on a former occasion was pronounced by Mr. G. R. Gray to belong to the Japanese species, but the females in all the species I have seen assimilate in a most remarkable manner. The male I procured in Hongkong I enclose. This is the fourth male I have seen, all resembling one another, and differing from the description in the 'Fauna Japonica.' The male in that work is thus described:—
'Les plumes du ventre et les couvertures inférieures de la queue

examples from the Philippines, as the bird described as *O. acrorhynchus* by Vigers (P.Z.S. 1831, p. 97) was from that locality.—P. L. S.

* I consider this to be the true *T. principalis*, but I have no Japanese specimens for comparison.—P. L. S.

sont blanchâtres, mais elles passent au noirâtre vers leur base. Toutes les autres parties de l'oiseau sont d'un noir de velours profond à reflets bleuâtres, et passant au noir-violet sur le dos et les ailes"—whereas the back of our bird is of a burnished pink-purple.

Iris dark blackish brown. Eye-skin and bill fine cobalt-blue, the latter with black tip. Legs violet-blue, with blackish claws. Gizzard roundish and somewhat flattened, $\frac{1}{2}$ in: in diameter, with a fixed rugose cuticle; containing remains of diptera and coleoptera. Intestine $6\frac{1}{2}$ in: in length; right cæcum $\frac{7}{8}$ in: from anus, the left $\frac{1}{10}$ higher, both about $\frac{1}{10}$ in: long and adnate, of an oval shape.

It is a grand sight to see this bird sitting upright on a branch, with its two tail-streamers hanging down, and quivering with the slightest breeze; but to see it spring on wing, and mark the whirling motion of the two long feathers, now coming together, now separating widely, and spinning in different directions as the bird skirmishes in the air, is truly a magnificent sight. They seldom dart out far on the wing, but keep a good deal within the limits of a large tree's branches. I have watched a pair of females engaged in the capture of insects. They stood very upright on the branch, with the tail almost horizontal, and leaping a little way into the air, would catch the fly and skip with it to another branch, seldom returning to the one they started from.

The yearling has the bill and legs brownish, the blue of the eye-skin being more or less sullied. I am told that white varieties occur near Canton.

59. HEMICHELIDON LATIROSTRIS (Raffles)*.

Very common.

60. HEMICHELIDON FERRUGINEA, Hodgson †.

I only saw this once. I enclose the specimen for Mr. Sclater's examination.

* This seems to be *Musicapa cinereo-alba* (Temm.) of the 'Fauna Japonica.'—P. L. S.

† Agrees well with Indian examples of this bird in Mr. Gould's collection.—P. L. S.

61. *XANTHOPYGIA NARCISSINA* (Temm.). Cantonese, "*Tsoey fa chay*."

Common about Canton. They often fly down to the ground or skim along its surface in the pursuit of an insect. In the various evolutions of flight, the bright golden colour of the rump and throat shows to advantage. I procured a female for the first time, and was surprised to find how much it differs from the male.

As the male only is figured by Temminck, I here give a sketch of the female :—

Bill, upper mandible black, lower bluish grey. Legs pale violet-grey. Iris dark. Inside of mouth pale yellowish flesh-colour. Upper parts obscure olive-green, with a blackish olive patch on each cheek. Wings and tail hair-brown, the former margined with paler. Some white feathers occur on the shoulder ; and the rump-feathers have whitish bases. Throat and indistinct eye-streak orange-yellow. Breast dingy olive-yellow. The remaining under-parts washed with ochreous.

Length 5 in., expanse $7\frac{1}{2}$, wing $2\frac{7}{8}$, tail 2.

62. *NILTAVA CYANOMELÆNA*, Temm. Cantonese, "*Moey fa tsoey*."

A few of these occurred in Hongkong in April, but in Canton for the first fortnight in that month they were remarkably abundant near the city walls. Almost every mound or grave-stone had its Blue Bird standing erect, on the look-out for the passing insect. I was much struck with the appearance of a brown bird, of similar habits and seen in similar positions. This I found to be the female of the blue,—the one I shot having an almost uniform olive-brown plumage. But a single blue feather on the crown of the head convinced me of the identity of the birds, before I had the opportunity of determining the sexes by dissection.

As the male only has been described in the 'Fauna Japonica,' I here extract from my journal the description of the female :—

Bill blackish brown. Legs greyish brown. Iris dark brown. Inside of mouth yellowish flesh-colour. Upper parts olive-brown ; rump redder ; tail fringed with reddish brown. Wings

brown, margined with reddish olive. Throat buff. Breast and axillæ olive, tinted with buff. Belly and vent white, touched with the same colour.

Length 6 in., wing $3\frac{6}{8}$, expanse 9, tail $2\frac{1}{2}$.

Testicles in the male small and *black*. Gizzard roundish, $\frac{5}{8}$ in. in diameter, lined inside with a moveable rugose cuticle of an ochreous colour, and containing for the most part small beetles, most of which were unbroken. Intestines thick and fragile, with *no* cæca.

63. CAMPEPHAGA — ?

This bird is occasionally seen at Amoy. I first met with it at Macao on the 21st of March, where its loud notes, repeated at intervals, attracted my attention. It was singing in a bush, but on being disturbed flew up to the branch of a tree, whence it continued to pour forth its notes. At Canton it was not uncommon. The immature bird is indistinctly barred on the under parts, the tints are much lighter, and a broad white bar occurs across the wing, visible when the bird flies. In this last characteristic of the immature dress this species approaches the *Pericrocoti*, which in most cases have a white under-wing band.

Mr. Blyth ignores the name which I have applied to it. I must therefore leave the identification of the species to Mr. Selater; and I think it is very probable that it will prove new*.

64. PERICROCOTUS CINEREUS (Lafr.).

This bird visited Hongkong in small flocks during the first week in April, when I was enabled to procure a nice series of males. A little later in the same month I saw a small party of them at Canton; but I am convinced that they were migrating, and merely passing over.

65. PERICROCOTUS CANTONENSIS, n. sp.

A smaller species than the preceding, and evidently resident at Canton. I send a male and female for Mr. Selater to examine

* This bird is a close ally of *Volvocivora lugubris* (Sund.) of India and *V. fimbriata* (Temm.) of Java, which, I suspect, is distinct from the Indian bird. The single specimen sent appears to agree best with the description of *V. melanoptera* (*Campephaga melanoptera*, Blyth, J. A. S. B. xv. p. 307), from Arracan.

and describe, and merely confine myself to the notes in my journal.

Length $7\frac{2}{3}$ in.; wing $2\frac{1}{2}$, tail $3\frac{4}{8}$, expanse $9\frac{2}{8}$. Bill and legs black. Inside of mouth flesh-colour. Eyes hazel. Gizzard roundish, muscular, and much flattened, lined with an adherent rugose cuticle of a brownish-yellow colour; containing remains of caterpillars. Testicles white, and elongo-ovate, $\frac{5}{12}$ in. long; the left one longer than the right. Intestine rather thin; cæca $\frac{1}{4}$ in. from the anus, about $\frac{1}{2}$ in. long*.

66. *DICRURUS MACROCERCUS*, Vieill.

This bird occurs, but not abundantly. Formosa is the only place where I have seen it in any abundance.

67. *LANIUS SCHACH*, Gm. (Sparrow King.) Cantonese, "Ma chow wong."

Very numerous everywhere. The bird in the south is smaller, and less rufous on the rump, than that at Amoy, and I dare say goes on decreasing in size towards the Straits, whence I have seen very diminutive varieties.

68. *LANIUS LUCIONENSIS*, Linn.

Passing over. I observed two one morning at Hongkong.

69. *CORVUS PECTORALIS*, Gould.

Common. The black species which occurs at Swatow and Foochow, and which Mr. Blyth tells me is *C. sinensis* of Gould, I did not see once at Canton.

70. *PICA SERICEA*, Gould.

Common everywhere.

71. *UROCISSA SINENSIS* (Linn.).

These handsome birds are often to be seen about the woods at Hongkong. You see a long-tailed form flying over the low trees with a direct flight, executed by short constant flaps, like that of a Magpie, the tail being held in nearly the same horizontal line as the body. The first disappears into a thick leafy

* This is certainly distinct from *P. cinereus*; but I rather doubt Mr. Swinhoe's male bird being in full plumage. The female shows a distinct yellowish bar on the wing. This ought to be red in the male by analogy, but is white. I should like to examine further specimens before describing it.—P. L. S.

tree, and is followed by a second, then a third and fourth, and sometimes more. Presently one shows himself on an exposed branch above, stretching out his red-billed head and whisking impatiently his two white-tipped tail-streamers. He sees you watching him, and at once sets up a cry of "pink-pink-pink," followed by a loud chatter, in which his comrades join, and you catch glimpses of violet and blue as they hasten from one tree to another in a contrary direction, until the distant sound of the "pink-pink" note tells your ear that the Redlegs are far through the woods.

72. *ACRIDOTHERES CRISTATELLUS* (Linn.). Cantonese, "Lent ko."

Very common. I dissected a female. Gizzard oval, about 1 in. long, $\frac{3}{4}$ broad, and $\frac{1}{2}$ deep; somewhat muscular, containing chiefly coleoptera; the inside was lined with a moveable cuticle, longitudinally as well as transversely furrowed. Cæca: left $\frac{5}{10}$ in., right $\frac{4}{10}$ in. in length. Around the intestines occurred several tape-worms (*Tenia*), the longest $1\frac{1}{4}$ inch, and about $\frac{1}{8}$ in. broad; whitish, and of nearly the same width to the end of the tail. The head was leech-like, and kept changing its form by its expansive and retractile power, at one time looking like a ball, then lengthening into a spatula,—then, the lip being drawn back, resembling a thistle-head. These curious little creatures lived some hours in water.

73. *GRACUPICA NIGRICOLLIS* (Paykull).

Somewhat rarer here than at Amoy.

74. *TEMENUCHUS TURDIFORMIS* (Wagler). Cantonese, "Fooley gang."

I first observed it in April, when large flocks of them arrived at Canton, and were to be seen on almost every tree. Is it found in summer also in Pegu? It is abundant at Amoy in summer, but its migrations do not extend so far northward as Foochow.

75. *TEMENUCHUS SERICEUS* (Lath.).

76. *TEMENUCHUS CINERACEUS* (Temm.).

I observed flocks of both these on the main opposite Hong-kong during February.

77. *COCCOTHAUSTES MELANURUS* (Gmel.).

Very abundant about Canton; evidently breeds there in great numbers.

78. *MUNIA MALACCA* (Linn.).

Flocks of these were observed at Macao and Whampoa.

79. *MUNIA MINIMA* (Lath.). Cantonese, "*Wo-kook*."

Very abundant. Most of the court-yards throughout the city of Canton have this bird nesting in their trees. The little fellows whisk about their pointed tails most vigorously, and utter their call-trill when you draw near their nesting site. The nest is a round domed construction of grasses and roots, not unlike that of a Wren, and generally contains three white eggs.

80. *MUNIA RUBRONIGRA* (Hodgs.).

I almost doubt whether this is a Chinese bird, as I have never yet met with it in a wild state. It is occasionally to be seen in cages, but I think comes from the Straits.

81. *MUNIA ORYZIVORA* (Linn.).

Wild at Hongkong during the early spring.

82. *LIGURINUS SINICUS* (Linn.). Cantonese, "*Kum sheong shee*."

Abundant.

83. *PASSER MONTANUS* (Linn.).

Found everywhere.

Several other Finches were offered for sale in the Canton bird-shops, all of which the dealers said came from Northern China; and this is not improbable, when we consider that such birds as *Loxia recurvirostra*, *Fringilla montifringilla*, and *Passer russatus* were among the number. They are brought down in numbers for sale by the Tien-tsin junks, that make half-yearly passages southwards. At all events, as I have never seen these birds in the open country, it is needless to swell my list with their names.

84. *EMBERIZA FUCATA*, Pall.

85. *EMBERIZA PERSONATA*, Temm.

86. *EUSPIZA AUREOLA* (Pall.).

} All more or less common,
and, I think, resident.

87. *EUSPIZA SULPHURATA* (Temm.).

Seen once at Hongkong.

88. *MELOPHUS LATHAMI* (Gray). The Macao Sparrow of Shaw's 'Zoology.'

In excessive numbers about Hongkong and Macao. The males are at least two years in completing their mature dress.

89. *ALAUDA CÆLIVOX*, Swinh.

Common in all open country that abounds in corn or pasture land; specially abundant near Macao.

90. *PICUS MAJOR*? Cantonese, "Shü-kai" (Tree-fowl).

This male specimen, which looks very like the European species, was brought to me alive at Canton. On a previous occasion I received a pair from Mr. Holt at Foochow. The one now enclosed to Mr. Sclater measured, when fresh, $9\frac{2}{3}$ in.; wing $5\frac{1}{2}$, tail $3\frac{1}{2}$, expanse of wing $14\frac{1}{2}$. Bill along culmen $1\frac{1}{2}$ in., from point to commissure $1\frac{1}{2}$; of a deep lead-colour, lighter on the gonyes and at the base. Inside of mouth flesh-coloured. Legs and claws deep leaden. Irides brownish carmine*.

Testicles over $\frac{1}{2}$ in. long, oval, and pure white; left one rather longer. Gizzard heart-shaped, not muscular, $\frac{7}{16}$ in. long; epithelium fixed, with close longitudinal rugæ; containing remains of beetles and minute pieces of rotten wood. Intestines 10 in. long, rather thick, with no cæca.

91. *CUCULUS TENUIROSTRIS*, Gray. Cantonese, "Pun-tow-shooey."

Very common and noisy in the city of Canton.

92. *EUDYNAMYS ORIENTALIS* (Linn.). Cantonese, "To-keun."

A figure occurs in Shaw's 'Zoology,' 1815, vol. ix. pt. 1. p. 103, under the term "*Cuculus mindanensis*," which is undoubtedly the female of the Canton bird; but it is marked "male," and

* This specimen agrees well with the bird figured by Mr. Gould in his 'Birds of Asia' as *Picus cabanisi*. According to M. Malherbe, however, this species is not his *P. cabanisi*, but *P. gouldi*. See Monogr. Picid. pl. 17. p. 62; but the distinctions between *P. cabanisi*, *P. mandarinus*, and *P. gouldi*, as there given, seem rather fine. We certainly doubt the fact of three species so nearly allied occurring in one country.—P. L. S.

its locality given as the Philippines, Cape, and Coromandel coast.

The loud notes of this bird first drew my attention to it in the city of Canton. I was told that this noise-producer was called the "Summer Bird" among the European residents, from its arriving at the commencement of the hot season. Its note may be syllabled "*cō'-ō'-ah*," pronounced loudly and with stress, which it keeps on repeating, the loudness and vigour increasing every time, until the sound suddenly stops. On hearing the call, you have only to look to some well-exposed tree or branch, and you are almost sure to see the bird; but it seems to prefer the leafless top branches of the gigantic *Bombax malabaricum*, where its large black form is plainly visible, bending forward and stretching its neck while the startling notes are emitted. If approached too near, the bird flies off with a *straight* flight,—looking, however, in form much like a Drongo Shrike. One that I was watching flew off to another large tree in which there was a Magnal's nest, and close to the nest a brown bird much like himself in form. The brown bird turned out to be the female, and set up a chattering noise on the arrival of her mate. She very probably had dropped, or had come to drop, an egg into the nest; for the Magnal (*Gracupica nigricollis*) soon returned to the tree, and seeing strangers so near his abode, charged them. The Magnal, however, was defeated and driven off, and the Cuckoos remained victorious. I was fortunate enough to procure a pair, which I enclose; but the bird was by no means uncommon, for I have heard no less than *three* males calling within ear-shot of one another.

Male.—Length $15\frac{1}{4}$ in.; wing $7\frac{1}{2}$; tail $7\frac{1}{2}$, with ten feathers. Bill pale bluish grey, becoming pale yellowish towards the tip. Inside of mouth flesh-colour. Iris clear carmine. Legs lead-colour, greyish at the joints and on the soles. Whole plumage greenish black.

Female.—Length 15 in.; wing $7\frac{1}{2}$, tail $7\frac{1}{2}$, expanse $19\frac{1}{2}$. Bill pale greenish ochre, varied with brown. Inside of mouth flesh-colour. Iris reddish brown. Legs leaden blue; soles yellowish grey; claws brownish grey. Tail a good deal worn and jagged at the ends and sides of the feathers, proving to a certain degree

that it is to the round domed nests of the Magnals (*Gracupica nigricollis* and *Acridotheres cristatellus*) that this bird chiefly resorts to deposit her eggs.

Tongue fleshy, sagittate, horn-edged and rounded at the tip ; basal half papillose, more conspicuously at the edge. Ear-conch moderate, nearly circular, with a lunate recess on the part furthest from the eye,—the inner edge of the ear and the outer angle of the eye being within the same plane. The eggs in the female were well developed, and some ready to drop ; the oviduct was large, measuring in length $5\frac{1}{2}$ in., and in diameter $\frac{3}{8}$ in., formed of a thick white elastic membrane, folded zigzag, and enlarging into a distinct cloaca.

The male had white oval testicles, about $\frac{1}{2}$ in. long. Proventriculus granulated, and narrowing as it joins the gizzard, which is somewhat ovato-circular, $1\frac{2}{3}$ in. long, well flattened, flabby, and capable of much extension : its interior cuticle moveable, nearly smooth, and of a pinkish colour, containing wild figs. Intestine 17 in. long, varying in thickness from $\frac{2}{8}$ to $\frac{7}{8}$. Cæca given off 2 inches from the anus, the one $\frac{7}{8}$, the other 1 in. in length, very thin, and of uniform size throughout.

93. CENTROPUS ——— ? (*C. lignator*, nobis.)

This small species, in mature plumage, I first met with in Kelung, Formosa. One was afterwards shot at Amoy, in immature plumage ; and in Hongkong I again fell in with the immature bird. Its "hoo-hoo," with the sounds "kä-toch, katoch," that immediately succeed, may often be heard on the bush-clad hill-sides of Hongkong. I enclose all three specimens for Mr. Selater's inspection, as it strikes me the species is probably new*.

Here is a note on the one procured at Hongkong:—Bill pale yellowish brown, with a tinge of pink ; culmen blackish brown. Inside of mouth pale flesh-colour. Iris ochreous, and eyelid pale ochreous. Naked skin round the eye bluish. Legs a violet lead-colour, with yellowish soles and edges to scutes. Proved to be a female on dissection. Gizzard lined with a move-

* This small *Centropus* seems not different from *C. affinis*, Horsf., of Java, Malacca, and India.—P. L. S.

able cuticle, containing several large hairy caterpillars of a species of brown moth.

94. *CENTROPUS SINENSIS* (Steph.).

This large and handsome species, so common in Foochow, is also abundant in the south; and one seldom visits the Happy Valley without being struck by its strange "hoo-hoo" resounding from the hills around. It is, however, a difficult bird to get a view of, being timid, and crouching in cover when approached. Like the foregoing small species, it is upwards of *three* years attaining to mature plumage,—during that time scarcely two specimens being found with the same markings. I procured a fine female in a wood on the other side of the island, near the village of Little Hongkong, on the 3rd of April. The eggs were largely developed, and evidently within a few days of being laid. Proventriculus $1\frac{3}{8}$ in. long, narrowing immediately before the gizzard, which is circular, somewhat flattened, flabby, and thin-skinned, lined with a thin, smooth, separable cuticle, and containing the remains of grasshoppers chiefly. Intestines $3\frac{1}{2}$ inches long; right cæcum 4 in., left $3\frac{1}{4}$, both bulging at their extremities. Oviduct long, and folded zigzag, being formed of a broad white elastic membrane terminating at the anus.

Besides the ordinary note, this bird sometimes utters a loud chuckle somewhat like the sound produced by pouring water from a bottle.

95. *TURTUR ORIENTALIS* (Lath.).

On the way down to Hongkong, a party of friends left the steamer for an afternoon's shooting at Swatow, and among the birds brought back was one of this species. I afterwards saw a pair early in March on the main near Hongkong.

96. *TURTUR CHINENSIS* (Scop.). Cantonese, "*Pan-kaou*."

The prevailing species. *T. humilis* did not occur, which is strange, considering how abundant it is from Hongkong to Shanghai during the summer months.

97. *PHASIANUS TORQUATUS* (Gmel.).

Found in the neighbourhood, and sometimes on the island of Hongkong itself.

98. *FRANCOLINUS PERLATUS* (Gmel.).

This bird is numerous in Hongkong, inhabiting the patches of bushes and fern that so frequently occur in nooks and depressions on the hill-sides, whence it is very difficult to flush it, even with a good dog. If you mark a bird down, you are by no means sure of putting it up again. It is a solitary bird, and does not associate in coveys. In the early mornings of April, and during the greater part of the day, if cloudy, you may hear them crying to each other on the hills around that enclose the Happy Valley. One male starts the song "*ke-kai, ke-kai, ka-karr,*" another on an adjoining hill defiantly repeats the notes; a third, still further, is heard, and even a fourth, until the notes are lost as it were in a distant echo. The first bird then commences again, adding greater emphasis to the last note, and the other birds take up the song in succession as before. When heard near, these notes sound harsh to the ear; but at a distance they have a pleasant, wild effect as they sweep over the sides of the towering hills. The flesh of this Francolin is white and insipid.

99. *COTURNIX DACTYLISONANS*, Temm.

Common; but, I think, merely as a winter visitant when corn takes the place of rice in the fields. Numbers are captured and brought to market in baskets; the best males being first selected, and confined separately in straw bags, for pugilistic purposes. For the table, they sell at 4s. or 5s. the dozen; but the warlike individuals fetch 1s. or 2s. apiece.

100. *COTURNIX CHINENSIS* (Linn.).

This diminutive and prettily-marked species is found in the neighbourhood of Canton, to which city it is carried singly or in pairs, and offered for sale in cages. It is by no means common, and is much esteemed as a cage-bird.

101. *TURNIX JOUDERA*, Hodgs. ?

This a good deal resembles the bird figured in Gray's 'Genera of Birds' with the above name, but is rather larger. You find it occasionally in the Hongkong markets mixed up with Quails, from which it is distinguished by Europeans by the name

“Button,” or “Button-Quail.” I have seen it occasionally in the possession of natives at Amoy.

102. *SQUATAROLA HELVETICA* (Gmel.).

Occurred during February, but not afterwards. One kept in an aviary at Amoy appears to have undergone no change in plumage as late as the end of May. Is this merely attributable to the effect of confinement on the bird's constitution; or is this race in any way separable from the European one?

103. *CHARADRIUS VIRGINICUS*, Bork. Cantonese, “*Mapaw-chuy*.”

A common bird near Canton; passes the summer there. The females do not appear to undergo so complete a moult as the males.

104. *ÆGIALITES CANTIANUS* (Lath.).

Common during February. The majority migrate northwards.

105. *ÆGIALITES PUSILLUS* (Horsf.).

Common about Hongkong in the rice-fields. Many stay to breed.

106. *ÆGIALITES GEOFFROYII* (Wagl.).

A large species: shot once at Amoy. One was shown to me that had been procured from a flock on the main opposite Hongkong.

107. *ARDEA CINEREA*, Linn.

Frequently seen.

108. *HERODIAS EGRETTA*? Cantonese, “*Pak haw*” (White Crane).

These birds are found in the neighbourhood of Canton, and are brought alive to market, where they may often be seen standing at some shop-door, the primary quills twisted together into a knot, and the eyes blindfolded by a feather passed through the underlid of each eye and tied over the head. They are called by Europeans “White Cranes.” I procured a pair, which I send for Mr. Sclater's inspection*.

* They seem to be *H. intermedia* (Wagler). See, for synonyms, Blyth's Catalogue, p. 279.—P. L. S.

	Length. in.	Wing. in.	Tail. in.	Bill. in.	Tip of bill to eye-angle. in.	Naked tibia. in.	Tarsus. in.	Mid-toe : in.	its claw. in.
Male.....	37 $\frac{1}{2}$	15	6	4 $\frac{1}{2}$	5 $\frac{1}{2}$	5	6 $\frac{5}{8}$	4 $\frac{2}{8}$	$\frac{5}{8}$
Female...	35	13 $\frac{1}{2}$	3 $\frac{1}{2}$	4	4 $\frac{5}{8}$	3 $\frac{5}{8}$	5 $\frac{7}{8}$	3 $\frac{7}{8}$	$\frac{5\frac{1}{2}}{8}$

Bill blackish brown ; base of *culmen* and *gonys* brownish yellow, gradually yielding to the bright chrome of the cere, which tends to greenish in the region of the eye. Iris king's-yellow. The *tibia* of the male is madder-brown on the highest part ; but this colour, as it descends, soon yields to the blackish brown which prevails throughout the remainder of the legs and claws.

In the female the yellow on the face is paler, and the tibia pale flesh-brown with a green tinge, which extends as far as the upper portion of the tarsus.

109. HERODIAS GARZETTA (Linn.).

Common.

110. BUPHUS COROMANDUS (Bodd.).

Common.

111. BUTORIDES JAVANICA (Horsf.). Cantonese, "*Shuy haou haw.*"

Met with near Canton. A male specimen in fine plumage was brought to me by a Chinese. Its bill was black, with an ochreous gonys ; lore yellowish green. Iris clear yellow. Legs yellowish sea-green on the upper surface, bright orange-ochre on the soles and under surface ; claws dark brown.

112. ARDEOLA PRASINOSCELES, Swinh.

Of frequent occurrence. A male was brought to me at Canton, and I enclose it for Mr. Sclater's inspection, and for that gentleman to pronounce if he does not really think it distinct from *A. leucoptera* and *A. speciosa**. The bill of this specimen was beautifully tinted with yellow and blue. Legs a fleshy yellowish, yellow and tinted with greenish on the toes ; claws brownish.

* I consider it to be *A. speciosa* (Horsf.). Mr. Blyth observes, in reference to this species, in a letter to Mr. Gurney, "It is curious that the Squacco Heron of Africa (chiefly), the *A. leucoptera* of India, and the *A. speciosa* of China, the Philippines, and Java, are so similar in winter dress as hardly (even if at all, with absolute certainty) to be distinguishable, yet in summer garb their colouring is most strikingly different."

The gizzard was of moderate size, and shaped like a bottle, containing the remains of small *crustacea*. The testicles were oblongo-ovate, and measured, one 1 inch, the other $\frac{1}{2}$ inch in long diameter. Curled in the intestines was a worm-like *Ascaris*, $1\frac{1}{4}$ in. long; and from off the skin under the feathers I picked a tick (*Ixodes*), about $\frac{3}{12}$ in. in diameter, with very thin red-brown feet and white, berry-like body.

113. ARDETTA CINNAMOMEA (Gmel.). Cantonese, "Fawhaw."
Common.

114. ARDETTA SINENSIS (Gmel.). Cantonese, "Wong gawhaw."
Common.

115. NYCTICORAX GRISEUS (Linn.). Cantonese, "Moon-shóó haw."

This is the sacred bird of the great Honam Temple, Canton. The court-yard in front of this temple contains some venerable banyans, as well as a few towering cotton-trees (*Bombax malabaricum*). On the higher branches of the former the small flat wicker-nests of the Night-Heron may be seen in all directions, some only a foot or so from others; and the croaking and flapping and fighting that goes on overhead bears some distant resemblance to the crowded deck of an emigrant steamer on first encountering a turbid sea. The granite slabs that form the pavement beneath these trees are so bedaubed with the droppings of old and young, that permission to scrape them clean daily might prove a fine speculation for the guano-collector. The birds, from the protection afforded them, were remarkably tame, and we could stand beneath the trees and watch them without their evincing the slightest fear. This was in April. Some might be seen *sitting* on their nests, with their long legs bent under them, the weight of their bodies resting for the most part on the tarsal joint; others standing on single leg close by, with shortened neck, the beak and head occasionally moving partially round as on a pivot; others flapped to and fro, ruffling up their head-gear, and occasionally sparring together. In their various movements, the dark-green-black of the head and back, with the thin snow-white occipital streamers flowing and quivering over the latter,

gave a quaint, though not ungainly, look to the birds. From some of the nests we heard a subdued chattering like the cry of young, and it was to feed these hungry mouths that the parents were constantly leaving the trees to seek for food at all times of the day, while others were returning with supplies. As the sun set, however, they became more active. While I sat watching them from a neighbouring roof-top in the evening, numbers of them emerged from the leafy darkness, and one by one settled on the stark bare outstanding arms of the cotton-tree. After resting for a little time like gaunt spectres on the tree top, off they went, one after the other, with a "*kwa*"—seldom more than two in the same direction. As darkness set in, many returned, and the noise and hubbub from the trees rose to a fearful pitch. Until night hid them from my view, I could see the old birds going and coming, and hear the clamour of the young. What kind of nocturnal slumbers the priests enjoyed in the temple below, I never took the trouble to inquire, though I have little doubt that from constant use the noise of these *croakers* has become quite essential to their good night's rest.

Though these birds moved about very much during the day, yet it strikes me that twilight is the most active time with them, and that in most instances the departures during the day were to seek food for the newly-hatched young, which would require feeding oftener at first, and perhaps with more choice food.

I sent my man up one of the trees, whence he brought down three nests, two of which contained eggs, and the third, two young birds and one egg. Judging from their size, one of these little birds must have been born at least *three* days before the other; and on opening the egg I found a live chick inside, which would have required at least two days before it could have ventured out. The varying stages of the embryos in the other six eggs confirmed this idea. I should say the differences between them could not have been more than *six* days, and certainly not less than *three*; so that the Night-Heron must commence sitting on the first egg laid, and while engaged in its incubation, keep on laying, at fixed intervals, the other two, which form the complement.

In the smaller chick procured the eye was just opened, and of

no determined colour. The bill and lore were of a yellowish flesh-colour, very pale, and tinged with blue. The legs of a similar colour, with pale claws. The head and back were covered with a long blackish down, and the rest of the body with more or less whitish down, somewhat resembling sheep's wool. The black down on the head was drawn out into long white tufts, which stood out from the head like a crown of thick threads.

In the larger chick, the eye was of a pale sea-green; the lore and bill were tinged with yellowish green. The long down of the head had opened out into filamentous ends. The legs were bluish sea-green above, and sienna-yellow beneath. The bare skin of the round projecting belly was sea-green, as also the dorsal skin. The colour of the down was light purplish grey, tipped with white on the crown, and giving place to white on the flanks and belly. The cry it uttered was a weak imitation of the old bird's croak.

The immature plumage of the yearling appears to undergo little change until the second winter, or until the bird is over two years old. One of the nests taken was covered by a bird in this first plumage, and the eggs were found to be narrower and of a darker blue than those of the mature bird. An individual in immature plumage was brought to me by a native, and the development of the testicles was proof positive that the bird in this plumage bred. It would be curious to inquire whether those in the mature plumage pair with those in the immature. I have certainly seen them together, but never ascertained whether two such owned the same nest.

Immature bird, ♂.—Iris reddish yellow or burnt sienna. Lore pale yellowish green, bluish towards the bill. Upper mandible and apical third of lower black; gonys, basal two-thirds of lower, and a line just above the edge of the upper mandible for two-thirds towards the base light yellowish green. Legs yellowish green, with pale brown claws.

Mature bird, ♀.—Lore bluish grey, with a slight tinge of yellow; bill black. Legs bright sienna-yellow, with a mixture of ochre; claws brownish black. Iris dark crimson.

A number of *Ascarides* were found in and about the intestines of this individual. They were of a yellowish flesh-colour, pointed at both ends, the longest measuring $3\frac{1}{2}$ inches.

Besides the colony of Night-Herons at Honam, there is another at the Old Man's Home, where a large pond is enclosed by a hedge of tall bushes and shrubs, and beyond this is a high wall all round. Among these bushes the Night-Herons muster in countless numbers, placing their nests on every suitable branch, though often only a few feet from the ground. They are held sacred by the priests in the adjoining temple, and no one is allowed to kill or disturb them.

116. *SCOLOPAX RUSTICOLA*, Linn.

Abundant during winter.

117. *GALLINAGO UNICLAVA*, Hodgs.

Perhaps commoner than the succeeding species in winter, but in summer nearly all retire. Among a number of Snipes shot in May, only *one* of this species occurred.

118. *GALLINAGO STENURA* (Temm.). Cantonese, "*Sha-chuy*."

Great numbers stay and breed in the neighbourhood of Canton.

119. *GALLINULA CHLOROPUS* (Linn.).

Abounds in some places.

120. *GALLICREX CRISTATA* (Lath.). Cantonese, "*Can-tum*."

A male specimen procured at Canton, which I forward for Mr. Sclater's examination*. Some years ago I procured one at Foochow.

Length $14\frac{1}{2}$ in., wing $8\frac{3}{8}$, tail $3\frac{1}{2}$. Bill $2\frac{1}{10}$ in., to angle $1\frac{1}{2}$; bare tibia $1\frac{1}{8}$, tarsus 3; mid-toe $3\frac{1}{8}$, its claw $\frac{6}{8}$. Bill greenish yellow, gradually yielding to vermilion as it approaches the basal *crest*, which mounts high on the forehead, and is bounded by a flesh-coloured line. Legs lead-colour, with a yellowish tinge, especially on the tarsus; claws brown. Tail consisting of ten feathers.

Gizzard oval, shaped like two shallow cups placed mouth to mouth, very muscular, $1\frac{5}{8}$ in. long, lined inside with a thick, broadly furrowed, moveable cuticle, and containing small shells, mussels, *Helices*, &c., many of which were in a pulverized state. Intestines 27 in. long: cæca situate $2\frac{1}{2}$ in. from anus; right one

* It is certainly *Gallix rex cristata*.—P. L. S.

2½ in. long, and bulging at the end; left one 2⅔ in., and of uniform size throughout.

121. *PORZANA PHOENICURA* (Penn.).

In a cage for sale at the city-gate. I was informed that it was caught in the neighbourhood of Canton.

122. *PORZANA ERYTHROTHORAX* (Temm.): Faun. Japon. pl. 78. p. 121. Cantonese, "*Louj kai.*"

The pretty female of this species that I forward home was procured at Canton.

Length 8 in., wing 4½, expanse 1. Tail consisting of ten soft feathers nearly 2 in. long. Bill: along culmen ⅞, along edge of under mandible 1 in.; of a leaden blue colour, blackish on the roof; the angle of the mouth reddish. Eye-rim vermilion; iris bright indian red. Tibia naked for ⅞ in., tarsus 1⅔ in.; mid-toe 1½ in., its claw ⅔. Legs bright madder-pink; soles pale dingy yellow, with sharp claws.

Tibial tendons rigid. Gizzard roundish, about ⅞ in. in diameter, flattened, and somewhat muscular, lined with a moveable greenish cuticle set with broad rugæ. Cæca situate 1½ in. from anus; left ⅔ long, right ½, both of uniform size throughout.

It would be needless to add here a list of the marine *Scolopacidae*, *Anseridae*, &c., because it is pretty certain that all these migratory sea-birds that are found at Amoy are also found at Hongkong, and therefore reference can easily be made to my Amoy list, if the reader should wish for a notice of them. I may, however, add to the list of Ducks the Shoveller,

RHYNCHASPIS CLYPEATA (Linn.),

which was brought in great abundance to the Hongkong market amongst other Ducks.

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[From THE IBIS, July 1862.]

Ornithological Ramble in Foochow, in December 1861.

By ROBERT SWINHOE, CORR. MEM. ZOOL. SOC. LOND. *K*

THOSE who are bound for Foochow, as was my case in December last, leave the steamer near the mouth of the Min river, where a boat waits for the mail and passengers. The sail is soon hoisted, and, with the help of six oars plied by six brawny natives (standing and pushing at them, as is the usual mode in this province, instead of the custom of sitting and pulling which prevails in most other places), we rattle along; the haze-capped hills protruding in bolder relief, and by their gradual convergence marking the inland course of the noble Min—a fine stream, no doubt, but tortuous, and not without its hidden dangers, which, thanks to the exertions of the consular and naval authorities, are fast being buoyed and beacons. Owing to the troubles at Canton, Foochow has of late years become a great mart for teas; and fine clipper ships, freighted with immensely valuable cargoes of that commodity, periodically wend down the river, homeward bound. Disasters annually occur, causing fearful loss to the insurers; and will still continue to occur, in spite of the beacons, until the underwriters have the foresight to advance a little capital and supply tug-steamers for the purpose of escorting these vessels beyond all the treacheries of a capricious stream. The discussion of this question, however, we must leave to those more intimately concerned; our readers in 'The Ibis' will scarcely be pleased with us for treating them with the mercantile. Let us drop the consul then for the present, and assume the naturalist. The flowing tide, useful for the purpose of carrying us the faster up stream, is not so well adapted for watching the habits of the winter wild-fowl which resort to the muddy flats and margins to feed at the first commencement of the ebb. But still, though not just now engaged in supplying exhausted nature, the sleek-plumed visitors are numerous enough, floating lazily on the water, preening their feathers, or sunning themselves with expanded wing and leg on the rocks and sandy beach. *Anser segetum* is the chief Goose, and its flights appear to exceed all calculation. The noise of our boat is too much for their suspicious ears, and stretching

their necks with a loud cackling, up they rise, and wheeling in long circles at length betake themselves further seaward. They do well to shun the approach of the white man, poor birds! for Colonel Hawker's murderous fowl-artillery is in possession of certain sporting residents at this port, and no less than thirteen of their brethren have gasped in death-pang from one fatal discharge. *Anser ferus* and *A. hyperboreus* also visit these waters, as well as a few Swans (*Cygnus minor*), both in mature and immature plumage, in January and February, when the cold season has reached its climax. *C. musicus* is said by Schlegel and Von Schrenck to be found in Japan and North China, and it is not impossible that a few of these are also included by sportsmen in the general term of *Swans*. What are those four white birds we see paddling gracefully away from us? They are too tame to be Swans. Yes, their long-pouched bills betray them; they are Pelicans—*Pelecanus crispus*. Different from most others of the feathered visitants of winter, these are not northern birds, but frequent the inland lakes and rivers, whence the freezing of their watery haunts drives them to seek subsistence in streams communicating with the sea. The Ducks about us are chiefly *Fuligula marila* and *F. cristata*, sitting like scattered dots over the surface of the water, with occasional parties of Sheldrakes, *Tadorna vulpanser* and *T. rutila*; but the latter is scarce near the sea, its habits leading it mostly to prefer fresh water. The Curlews are strutting about the mud, ever on the look-out to take wing at the approach of a boat, while certain smaller, sprightlier birds wading about among them—the first to give warning—are off already, with their shrill “*teo-teo*.” The wretched little telltales we recognize at once to be *Totanus glottis*. Of the other Sandpipers, *T. stagnatilis*, *T. calidris*, and *T. fuscus* appear to be rarer and more locally distributed, as also is *T. pulverulentus*. *T. ochropus* prefers generally the margins of inland waters, in company with the Golden Plover (*Charadrius virginicus*), where the Teal, Pintail, *Anas falcaria*, *A. clypeata*, and *A. boschas* also seek shelter from the cold sea-blasts. The cloud of small birds that rise with one accord—so unanimous in their evolutions, at times showing their white bellies like large flocks of falling snow, and at others becoming almost

invisible as their grey backs are turned with simultaneous uniformity—are the Snippits (so called), the constant winter residents of the Southern Chinese coast. They are usually considered to be the *Tringa subarcuata*, though, from the black-bellied garb they assume in summer, I take them to be a different species, perhaps entitled to Gray's name *T. chinensis*. *T. platyrhyncha*, *T. minuta*, *T. subminuta*, and *T. alpina* are earlier in their migrations, and are seen on the coast in September, chiefly on their way to more southerly regions, to pass up again in March or the commencement of April. They are often found in those months by inland salt-marshes, in company with the Great Snipe (*Gallinago megalis*, nobis), which also winds more southwards to hibernate. *Tringa temminckii*, on the contrary, remains all the winter with us, on the banks of inland pools or fallow paddy-fields, solitary or in small parties, and often in company with *Ægialites philippina*. The congener of this last, however, *Æ. cantiana*, is a mudlarker on the shores of the salt seas, and we of course notice abundant flocks of this species on the banks and flats of this river. Numbers of them spend the summer here, resorting, for the purpose of breeding, to sandy coves among secluded islands. At the hottest time of the year their nuptial tints become much faded, and their whole plumage undergoes such severe abrasion that some specimens present almost the appearance of albinos. *Æ. leschenaultii* is sometimes shot out of parties of the foregoing, but is rare and very locally distributed on the Chinese coast, though pretty common on the large sand-flats in Formosa. No signs here of *Streptopelia interpres*! He made his hurried transit southwards long ago; and *Avocetta*, *Platalea*, *Hematopus*, and *Lobipes*, in their migratory movements, depend too much on the freaks of a changeable winter to find them now on this mild December morning.

Our boatmen shout and stamp more loudly, and by vigorous exertion accelerate our advance. The hills grow nearer, and a sudden sweep brings us round in view of the "Pagoda anchorage." One steamer and a few ships are anchored in this small basin, while a bungalow or two, owned by storekeepers, huddled cozily on the sides of a green island topped by a pagoda, mark the resort of those that go down to the sea in ships. We rapidly pass



on. Sturdy fellows are these boatmen—nearly naked, in spite of the fresh-blowing breeze that drives us shivering into the cabin. Their well-turned limbs and straight eyes give them a nobler look than Southern Chinese usually possess ; but their hairless cheeks, the plaited tail wound round their bald pates, their yellow tint, and, above all, their loud-toned, varied jargon betray them natives of the Celestial Empire. They are, nevertheless, goodnatured, and seem anxious to drive the boat ahead. Standing to their oars, they swing the right leg forwards and stamp in concert, and join vociferously in chorus to the same continued boat-song. Far from showing signs of fatigue, their exertions get more furious, and their stamps and shouts louder, when any other boat tries to pass us. The high hills on each side look fresh and green, with their clayey sides scattered with huge black boulders of granite. Their formation is much the same as that of those at Amoy ; but the abundance of fir-trees and coarse grass that partly cover their nakedness is quite refreshing, and forms a striking contrast to the general hoary aspect of Amoy. Some have compared the views on this river to those on the Rhine ; but, it strikes me, the comparison is rather far-fetched. The black granite has its charms, nevertheless, at least to the builders so largely employed since the accumulation of white men at the town ; and the quarriers are ever at work, clearing the rock with sledge and wedge, and sliding the masses down the faces of the hills. As regards the social advancement of the little community at Foochow, as also their progress in architectural skill, the church, built entirely of solid granite, bears proud testimony. The towering hill of Koo-shan now appears on our right, boasting a height of 3000 feet, with its far-famed monastery of 70 priests, built in a recess on its undulating side at a height of 2000 feet. The large concourse of boats of all shapes and sizes, and the increasing accumulation of houses, show that the city cannot be far distant. At last we see it—a narrow bridge spanning the rapid river, its expanse sustained by numerous buttresses, and broken by a small island near the southern bank. What a stream of passengers are crossing to and fro, from the proud city to the Nantai side, whereon the roofs of foreign houses and factories appear most abundant ! The boat stops at the Steam-Company's agent's wharf. The bustle of landing the mail

and other goods takes place amidst loud cries and gesticulations, when we take our leave and repair up the hill to the pretty tier of government houses occupied by the consular establishment, and single out the residence of my esteemed friend, Mr. Holt. This gentleman, though rather addicted to the *otium cum dignitate* of civilized life, had not been entirely idle, but, assisted by a Chinese bird-stuffer supplied by me, had managed to get together a pretty decent collection of birds. The only novelty, however, was a *Pericrocotus* of very flammeous tints, which I had before seen from Java, and I think is described as *P. brevirostris* in Gould's 'Century.' This bird was bought from a child who was playing with it on a stick. I was pleased to find that a mercantile friend at Foochow was making some progress in the pursuit of ornithology. He possessed a copy of Morris's 'British Birds,' which he employed in identifying the Chinese species; but, like all tyros, he had marked most of the English birds as Chinese. I endeavoured to give him some hints on the subject, and I have great hopes of his usefulness in developing the ornithology of Foochow. He told me of some Black Woodpeckers he had seen in a tree close to his house, but that he had unfortunately not been able to procure a specimen. He assured me that they were not of the brown species allied to *Brachypternus badius* of Java, with which he was acquainted. This will therefore make the fourth species of the group found about Foochow. One curious bird, a stranger to me, was in his collection. It is a Wheatear, of a dusky plumage, mottled with white; and I take it to be the young of *Saxicola leucura*, which I see by 'Blyth's List' is also found in Upper Hindostan.

From the top of the Nantai Hill a fine view of the right and most interesting half of the valley of the Min is obtained—large tracts of cultivated paddy-land, divided here and there by green hills of modest undulation, which are ornamented with clumps of tall pines, banyans, and other umbrageous trees, and in places with bush and copse. In the distance, the high range that bounds the valley rises in varied tiers, surmounted oft with cone-shaped peaks, and oft with rude rounded bluffs. In the summer of 1857 I found the pine-groves abounding with numerous families of Goldcrests (*Reguloïdes proregulus*) and *Parus minor*, and frequented by occasional individuals of the handsome Grey Drongo (*Dicrurus*

cineraceus), sitting in stately attitude, with decumbent forked tail, at the ends of the leafless boughs, or making short sweeps into the air and snapping at the passing insect. Now the lofty boughs of this Chinese emblem of longevity stoop to the awakening breeze, and no sound is heard among them save the occasional "sweet" of a solitary *Reguloides* or the shrieking scream of the Kites, which are pursuing each other and courting in their own clumsy manner preparatory to their early nidification. The mournful wail of Boreas through the bending branches is heard loudest of all. There is life yet, though, in the copsewood below; for, see! a party of lively winter arrivals are twittering and frisking about 'twixt the ground and the bushes. It is easy to observe that they are the common Bunting (*Emberiza personata*). Sparrows (*Passer montanus*) are as noisy as ever on the adjoining wall; and the little Sailor Bird (*Orthotomus phyllorapheus*) cheers up his mate with his well-known loud note, as the contented pair thread their way through the close bents of the long coarse grass. Surely that lively little brown bird I have met before! It looks like a Chat as it flits away, expanding its reddish tail. Ah yes, it is *Pratincola ferrea*, for there is its black-tinted male consort; another and another; surely, quite a party of them. They are late in their migrations. The paddy is all cleared away from the fields, and we must not therefore look for many birds in that direction. The large flights of the Yellow-head (*Buphus coromandus*) have long sped to the south, shorn of the yellow feathers that adorned their heads, which, like the deciduous leaves of autumn, fall when the glowing season of summer is past, to be renewed again soon as the sap-o'erflowing trees hail the arrival of spring with their show of sprouting leaflets. The banyans of the courtyards throughout the city—the scene of their love-making and noisy sparrings during the amorous season of nidification—are now deserted; and their congeners, the White Egret (*Herodias garzetta*), alone return at nightfall, in scattered and diminished parties, to roost and to long for the advent of the pleasant season. A few wandering *Ardeole* occasionally rise as the gunner plods wearily through the muddy fallows; but the handsome Black Heron (*Ardetta flavicollis*) and the little Chinese Heron (*A. sinensis*) never greet his eye. The Heron, the Night Heron, and *Ardetta cinnamomea* have all become

scarce, the first having betaken himself for the time to the salt-fisheries, while the two last have turned wanderers and vagabonds over the face of the country. But the Snipes are here, though mostly to be met with in the wet, green patches of grass at the corners of fields. There they may be found mostly in wisps, but in this month generally singly. *Gallinago uniclava* is now commoner than the summer resident, *G. stenura*, which latter has a heavier and more direct flight. Woodcocks are rare in Foochow, but have been flushed once or twice among the hills. The Pheasant (*Phasianus torquatus*) is the chief bird here that incites the sportsman. It is found on the copse-covered hill-sides, but by no means so common as in the flat country about Shanghai. The Chinese nevertheless manage to get abundance of them, and may be seen nearly every day hawking them about the streets for 2s. a-piece. The hills also afford the Chinese Francolin (*Francolinus perlatus*) and the Bamboo Fowl—a species of *Arboricola* (I think, new, and which I have named temporarily *A. bambusæ*). Two other Partridges, one with *black* legs and the other with *feathered* legs, also occur; but as I have not yet seen them, I have no means of giving further notice of them.

As the gunboat 'Hardy,' that was to carry us to Tamsuy, in Formosa, grounded in her attempt to go down the river, we had a day at our disposal to ramble over the imposing hill, Koo-shan. In crossing the basin between the bridge and the mountain, we were astonished to find the sand-spits so destitute of birds. A few Sandpipers (*Tringoides hypoleuca*) appeared to be the only representatives of the winter arrivals, fluttering and skimming, with tremulous wing and merry note, in front of our boat, and alighting quite fearlessly a few yards off, where they continued their mud-probing pursuits, accompanied by frequent wagging of their posterior extremities. Some Wagtails were also running about close to the water's edge. I had the satisfaction of observing the three pied species noted before at Amoy. They are so similar, apparently, at first sight, that one feels disposed to rank them as varieties; but on deeper study of their relative characters and habits, each species is found to possess distinctive marks of its own, and to be governed by distinct laws of migration and distribution. *Motacilla luzoniensis* is the species perennially

with us in more or less numbers, many retiring in summer south-eastwards to Formosa and the Philippines. *M. ocularis* (which Mr. Blyth identifies with *M. dukhunensis* of Sykes) visits our coast in winter, and returns westward to the interior provinces to breed. But *M. lugubris* evidently comes on its brumal migrations from North China and Japan; and Amoy, so far as I have yet observed, appears to be its most southerly limit, only a very few occurring there each winter. Whether these three, to me obviously *species*, may be considered mere climatal varieties, I leave to the superior learning of those who have more studied this question than myself. Certain it is that such species as *Yunx torquilla* and *Passer montanus* are not subject to any change, though found under very varied circumstances both of food and climate throughout the greater part of the old world. The distinctions that mark the difference among these three forms of the Pied Wagtail are certainly constant in all the specimens in different stages of their development that I have examined. *Motacilla boarula* never undergoes a change either in form or colour, and its distribution is extremely wide; whereas the *Budytes* group, as every ornithologist well knows, often puzzles the most discerning by its numerous congeneric forms. One species of this group visits this coast from the interior regularly every winter; and those in full moulted plumage that I have procured in spring are in every way undistinguishable from the true *Budytes flava* of Linnæus. In Formosa, however, another species appears with a *green* head in summer garb; and had it not *brown* cheeks, I should feel inclined to refer it to the form prevalent in the British Islands—*B. rayi*.

A flock of Grackles (*Acridotheres cristatellus*) are busy searching for small mollusks as the tide recedes; and interspersed among them are a few of the Parson Crow (*Corvus pectoralis*). The black species, *C. sinensis*, is also found in Foochow, and can at once be recognized by its peculiar "*caw*," which much resembles in sound that of the large black species so abundant at Pe-kin (*C. japonensis*). A few of the Pied Grackle (*Gracupica nigricollis*) also occur at Foochow.

As we approach the flat ground at the base of the hill, we find the water divided into square fishing-beds, enclosed

with close-set withered branches some 8 or 10 feet high. The tide overtops them and enables the fish to float into the enclosures, whence their egress at the recess of the water is rendered impossible by the barrier of branches, and they thus become an easy prey to the successful cunning of the fishermen. The tide is now low; and as we approach the high hedges of the enclosures, we naturally wonder how the boatmen will manage to land us. The helmsman gives a cheering shout, the men bend to their oars, and in a few seconds we have charged through the mass. We look round expecting to see a large gap, and to hear the execrations of the fishermen, who are paddling about not far from us; but no, the osiers have sprung back to their former position, and no gap is visible. A mile of paddy-field brings us to the first temple and gateway, leading up a broad stoneway to the hill monastery. At this entrance large banyans and pine-trees are clustered about in truly picturesque style, and the mixed notes from their numerous feathered inhabitants fill our bosoms with ornithological hopes. Even on the gate-porch several birds are sitting and enjoying themselves with noisy chatter. As we approach they take to the trees, and by their sweet blue plumage and long tail we cheerfully recognize the handsome *Urocissa sinensis*. Numbers of the Bispeckled Jay (*Garrulus ornatus*) are here also, as noisy as usual. We observe *Turtur chinensis* and *T. gelastes* in abundance, and occasionally a late straggling couple of *T. humilis*. Other birds are also here in infinity, and among them we distinguish the *Ruticilla aurorea*, *Ianthia rufilata*, *Myiophonus cæruleus*, *Turdus daulias*, and *Enicurus speciosus*; but as we shall refer at the end of this article to the few worth recording that we procured, let us pass up the hill. The day was warm, and the ascent up the paved way very tedious; but the splendid view revealed at each of the three-stage lodges, each higher one giving a more extended view of the lovely vale beneath us, was extremely refreshing. The prospect over the valley, however, in the summer season is far more attractive, when the fields display one vast carpet of green waving rice, intersected by a labyrinth of streams connected with the river, which supply the agricultural system of the plain like so many silver arteries, the whole landscape being gilded to effulgence by the direct rays of nature's great regenerator. The hill-sides on either hand

were almost entirely denuded of trees, and showed small signs of bird or human life. A few grass-cutters, mostly females, were the only bipeds. We met several parties of them, with their loads of grass, jogging down the hill, laughing and chatting to one another in happy mood. These peasant-women, though much browned by their constant outdoor life, are justly celebrated throughout China for their beauty of form and often of features. They trim their hair, in quaint but tasteful style, with large, bent silver skewers; and their nether limbs, not cramped and banded as customary among most Chinese women, are often symmetrically formed, and revealed to an extent that many of our fair countrywomen would think extremely indelicate. But the same ideas of decency do not obtain in all countries. We now pass up to the monastery.

Let Bhudda's votaries ascend this height to pay their homage to the Kooshan shrine, and gaze with awe upon the wondrous relics therein preserved! We love not Bhudda's faith nor Bhudda's lore; so our readers need not be afraid of our going into ecstasies at all the *mirabilia* that the monastery contains. But we cannot pass without mentioning one relic that is interesting to a naturalist, though in a different light from what it is to the enlightened worshippers of the mighty Fo. It is what the Chinese believe to be one of the molars of that once incarnate deity, bequeathed by him to certain beloved disciples in the West, when he was about to shuffle off this mortal coil and return to that nonentical existence to which all good Buddhists aspire. By these worthy disciples it was deposited in this great monastery to be worshipped in awe, as a token of the great love their master bore mankind by deserting the bliss above to become flesh for their sakes. Suffice it to say that, if it actually did belong to Bhudda, that worthy must have entered flesh and inculcated his divine principles under the form of a *mammoth*; for there can be no doubt that it is a fossil tooth, and belonging to one of that series of Tertiary Mammals that Prof. Owen has introduced to the civilized world with so much learning and skill.

The monastery, with its numerous apartments and various ramifications, is all nestled in one group of handsome trees, the pines of which are of a gigantic size, and larger than any I have

seen elsewhere in China. I was in great hopes of meeting here some of the Woodpecker family; but a breeze had now sprung up, and scarcely a bird was anywhere to be seen. A few Tree Pipits (*Anthus agilis*) occurred, and one Cuckoo (*Cuculus striatus*), the latter in young plumage, and probably a stray bird late in its southerly migration. As some of us were in a botanical mood, the rich-clad hill repaid our ramble; but in an ornithological point of view the higher spots were singularly deficient.

I subjoin some notes on a few birds procured in this ramble, of which I have not hitherto given notices from examples in the flesh.

Garrulus ornatus (seu bispecularis) ♂, Dec. 9, 1861.

Length $13\frac{1}{2}$ inches; wing 7; tail 6, of 12 feathers. Bill deep neutral tint, with pale tip, and ochreous bases to both mandibles. Inside of mouth olive-black, with paler tongue. Iris pearly, with a deep-purple outer edge; skin encircling the eye light purplish brown, with a deep purple-black inner edge. Ear-covert larger than the eye, irregular oval, with the operculum slit perpendicularly through the middle. Legs and toes light ochreous flesh-colour, with light-brown claws.

Screeched harshly when wounded.

Dissection.—Heart $\cdot 8$ by $\cdot 6$ in. Liver, both lobes about 1 inch long; right rather lower down, and rounded at end. Each sterno-tracheal muscle divides on its way down the trachea, and ends at the peak in two lobes; the membrane between trachea and bronchi divided transversely by a thin pin-shaped cartilage $\cdot 3$ long. Trachea gradually contracting downwards. Œsophagus with thin semitransparent parietes, dilatable to $\cdot 7$. Proventriculus much granulated, $\cdot 6$ long, thick, and gradually enlarging towards stomach. Gizzard nearly round, $1\cdot 3$ long, $1\cdot 1$ broad, and $\cdot 8$ deep, with rather small roundish tendons, whence radiate strong muscles. Epithelium thick, ochreous, furrowed deeply in all directions, and filled with entire black seeds of some mountain berry, the soft parts of the same, large siliceous grits, and scanty remains of field-bugs. Intestine $21\frac{1}{2}$ in. long, varying in thickness from $\cdot 15$ to $\cdot 25$. Cæca situate 1 in. from anus, $\cdot 4$ long by about $\cdot 1$ thick, the right one rather higher than the left.

I found the nest of this species, in the summer of 1857, at Foo-

chow. It was placed on a thick lower bough of a high tree, right up against the trunk, and differed from that of *G. glandarius* in having a richer canopy. It contained four nearly fledged young.

Enicurus speciosus ♂, Dec. 9, 1861.

This bird appeared just as it was getting dusk, on the margin of a stream, wagging its deeply cleft tail, and looking much like a *Kittacincla*.

Length 10 inches; wing 4·21; tail 5·8, from tip to fork 3·4. Skin round eye bright purplish black. Iris deep hazel. Bill black; inside of mouth light orange-ochre, blackish on rictus, tip of tongue, roof, and inside of under mandible towards the tip. Ear-covert smaller than eye, roundish, perforated with a round aperture; skin of covert very white. Legs very pale flesh-colour, almost white; claws having a tinge of blackish. The shape of this bird's ear is in every respect similar to that of the *Myiophoni*.

Dissection.—Heart ·55 by ·4. Liver large: right lobe 1·2 long, entirely covering the intestines; left ·7. Œsophagus dilatable to ·3. Proventriculus ·4 long, at first expanding and then contracting. Gizzard somewhat heart-shaped, ·7 long, ·5 broad, and about ·3 deep. Epithelium thick, leathery, longitudinally furrowed, ochreous, containing remains of small insects.

Ianthia rufilata ♂, Dec. 9, 1861.

Acquiring the brilliant tints of the adult male.

Length 5·7 inches; wing 3·2; tail 2½, of 12 feathers. Bill black, purplish brown towards the base. Inside of mouth pale flesh-colour, with a touch of ochre; blackish on tip of tongue and inside of mandibles. Skin round eye blackish. Iris deep brown. Ear-covert larger than eye, roundish, with a downward diameter-bone. Operculum semilunate on the outward arc. Legs and claws deep purplish brown, with pale soles and edges.

Myiophonus cæruleus.

Three of these were seen near a rocky stream, perching at times on the branches of the trees, at others chasing one another backwards and forwards, threading the dark-leaved boughs of the banyan; the cock bird singing in flight a loud, lively strain, much after the manner of the *Petrocossyphi* or Rock Thrushes.

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ON NEW AND LITTLE-KNOWN BIRDS FROM CHINA.

BY ROBERT SWINHOE, F.Z.S., ETC.

Fam. PICIDÆ.

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In the valley of Foochow I observed among the pine-trees a brown species of Woodpecker feeding off some insects attached to the resinous gum that exuded between the scales of the bark. It continued active in its pursuit, running round and up the trunk, occasionally halting a few seconds and uttering a hoarse shaking note, not unressembling a laugh. I shot the bird, and found its head, base of bill, and many parts of its body smeared with the gum among which it was feeding. A female, which I afterwards procured from the same locality, had the head quite disfigured by the dried mass of resin, which glued the feathers of its crown together. This fact, I learn from Jerdon's book on 'Indian Birds,' has been observed before by Mr. Blyth and others, in the species of Indian *Brachypternus*. The Foochow brown Woodpecker is also a *Brachypternus*, at once distinguishable from its Indian congeners, *Micropternus phaiiceps*, Blyth, and *M. gularis*, Jerdon, and the small Malay species, *M. badius*, Horsf., by its much browner plumage, the under parts especially being of a deep dusky brown instead of chestnut, and by its long narrowed feathers with dark central lines on the crown and occiput. The Chinese bird, moreover, appears to be larger, the female being somewhat larger than the male. I propose to call this

BRACHYPTERNUS FOKIENSIS, sp. nov.

General colour brown, banded narrowly on the back with chestnut; quills and tail chestnut, banded broadly on the former and narrowly on the latter with brownish black; feathers of the head and neck narrowed and lengthened, in the male dusky yellowish grey, in the female light chestnut, with deep-brown central stripes, paler in the female. The masculine distinguishing mark is the patch of crimson specks (blood-tips to the feathers) that occur on the cheek just under the eye. Bill bluish grey, with more or less greenish yellow on the lower mandible; irides reddish brown; legs and claws greenish slaty.

♂. Length 8.5 inches; wing 5; tail 3.7; bill, at front, 1; tarse .8.
♀. Length 9.5; wing 5.3; tail 3.7.

I have never received this bird from any part of China but Foochow, where it is not particularly common. I have drawn my name from the province of which Foochow is the capital. On *Micropternus phaiiceps*, Blyth, M. Malherbe has founded two species—*Phaiopicus blythii* and *P. rufonotus*; but both Jerdon and Blyth consider these to be identical. The *Micropternus gularis*, Jerdon, is the *Phaiopicus jerdoni* of Malherbe.

While on the subject of the Woodpeckers, I should like to make a few remarks on the eastern races or so-called species of the *Picus major* group, namely, *Pici mandarinus*, *luciani*, *gouldii*, and *cabanisi*

of Malherbe's 'Monograph.' The form of this bird, found in the north-west Himalayas, and described by Jardine and Selby as *P. himalayanus*, and Hodgson's species, *P. majoroides*, from the south-west Himalayas, both appear to have the red breast-spot which, in the adult dress, adorns the breast of the Chinese bird. I will here add some remarks on our Chinese bird, made after a careful comparison of my series from China with the plates and descriptions in M. Malherbe's work.

PICUS MANDARINUS, Malherbe.—*P. major*, L., apud Von Schrenck and Middendorff.

M. Malherbe has described and figured four species of true *Picus* from China: of the exact locality of one of these only he speaks with confidence—his type of *P. mandarinus* from Whampoa in the Museum at Berlin. I have in my collection a specimen from Whampoa, three from Canton, three from Foochow, and one from Pekin. From Whampoa and Canton I have two skins which answer to the brown under-plumage of his *P. luciani*, but have broader and more black bands on the lateral rectrices. I have two from Canton answering to *P. mandarinus*, but with a less bright red spot on the breast. My three birds from Foochow correspond nearly to his *P. gouldi*, which I presume is from Shanghai, but are browner on the under parts, and also have indications of the red spot on the breast. My example from Pekin is of the bright under tints of *P. cabanisi*, with an equally bright red breast-spot; but has more white on the wings, and the almost white lateral rectrices of *P. luciani*. From a careful comparison of the skins of this variable Woodpecker in my possession, I have come to the conclusion that they are all certainly of one species; for if we were to go on such nice specific distinctions as those pointed out by M. Malherbe, every bird even out of a number from the same locality might be regarded as a distinct species. In one of my Canton birds the secret of the very brown under plumage is developed; it is a young male with the crown red. Hence I gather that the special brown plumage in this species is a mark of the young, the red pectoral spot showing itself and intensifying as the bird advances to maturity, while the under plumage at the same time whitens. The white on the wings and tail is always less in the young individual, and widens considerably with advancing age. No two specimens agree precisely in the size or distribution of the white on the wings or the bands on the tail. The further north the locality whence the birds are derived, the larger their sizes generally, and more conspicuous the white markings. My Foochow specimens are larger than those from Canton and Whampoa, and have more white on the wings and tail; while the bird from Pekin is as light on the under parts as *P. major*, though, being adult, it carries the characteristic bright red pectoral spot. At the same time, being from a northern locality, the white spots on its wings and the white bands on its tail are very largely developed. Had M. Malherbe known the exact localities of the individuals he describes from, and had he had a larger series of skins to examine,

I do not think he would have advanced such strong opinions as to the specific merits of the four species he has introduced into his excellent work.

Genus ALAUDA.

ALAUDA PEKINENSIS, sp. nov. Pekin Skylark.

Smaller than *A. arvensis*, L., with longer wings; paler, without the olive wash; head much less crested.

Length 7·5; wing 4·7; tail 3·1; tarsi ·9.

My two specimens from Pekin I have compared with six specimens of the English bird shot about the same season. Both my examples are males, one mature, the other a bird of the year. My younger specimen is, as usual in Larks, most distinctly marked, the eyebrow, lore, throat, and nape being nearly white, the latter spotted. The mature bird is more rufescent on these parts, but is otherwise generally paler. The six English Larks vary a good deal as to particular marks and length of wing. They are all longer than my two birds, and yet the longest-winged of the lot does not quite attain the alar length of our birds. They all unite in having their dark parts of a much richer brown, and their whole plumage washed with olive-yellow, which is by no means apparent in the Pekin birds; while the latter have much less crest.

ALAUDA CÆLIVOX, Swinhoe. South-China Lark.

Of much richer plumage than the North-China Lark, much smaller, with more developed crest.

Hab. Formosa, and from Canton to Foochow.

Length 6·5; wing 3·6; tail 2·4; tarsi ·9.

ALAUDA INTERMEDIA, sp. nov. Shanghai Lark.

Capt. Blakiston has brought from Shanghai two Larks, which occupy a position so entirely between *A. pekinensis* and *A. cælivox*, that it is impossible to refer them to either. They constitute an intermediate race, which might by analogy be expected to occur on the boundaries that divide the northern race from that of the south; and certainly, geographically speaking, the Yangtze River may be considered the dividing-line of the northern area of China from the southern. This bird may perhaps be regarded as a hybrid form between the two species, which in this locality may be supposed to meet. I could not discover any striking differences in the song of the Shanghai bird from that of *A. cælivox*, nor yet from that of the Pekin Lark. But in size and general appearance the three appear certainly distinct.

The Shanghai species may be characterized as intermediate to *A. pekinensis* and *A. cælivox*, with proportionately longer wings than either, and less crest than the latter. Its first primary quill is more nearly of a length with the second than in the Pekin Lark.

Length 6·8; wing 4·2; tail 2·8; tarsi ·9.

Genus ANTHUS.

Neither Von Schrenck nor Middendorff notice a Rock-Pipit from Siberia or the Amoor; nor has one yet been noted from Japan. I have never traced the form in any part of China. We are, however, indebted to Capt. Blakiston for the capture of a specimen of this group, allied to *A. obscurus*, L., on the banks of the Yangtze River, 150 miles inland. This skin closely tallies with one in Mr. Gould's collection from Ireland; but ours has a whiter face and cheek, and the pectoral spots, which blend away obscurely in the Irish skin, are in ours distinct and well marked. On the specific merits of the various forms of Rock-Pipit procured in different parts of Great Britain and Europe I will leave European naturalists to dispute. For the present, until the acquisition of a larger number of specimens shall prove the Chinese bird identical with the varying forms of the West, I propose to consider ours as distinct, under a specific designation taken from the name of its discoverer. It may, however, be only a well-marked race, to which the British forms may be found occasionally to assimilate; or it is just possible that the specimen procured in Ireland may be one of the several Eastern birds that in some unaccountable way has found its way to the shores of Great Britain.

ANTHUS BLAKISTONI, sp. nov.

Bill blackish brown on culmen and tip, light brown on remainder; legs blackish brown, paler on tarsi; upper parts light yellowish brown, grey on the nape; crown and back with centres of feathers deep brown; lore, eyebrow, and chin cream-white; under parts cream-white, spotted on the breast and streaked on the flanks with brown; axillaries pure white; wings brown, feathers edged paler; coverts and tertiaries broadly edged and tipped with cream-white, forming a double bar across the wing; tail brown, the central feathers yellowish brown, edged paler; the outer lateral tail-feather, on the entire outer web, and great part of inner near the apex, white; second lateral edged exteriorly and largely tipped with white.

Length 5; wing 3·7; tail 2·7; tarsi ·85.

ANTHUS GUSTAVI, n. sp.

This species, which visits the island of Amoy for a few days, about the middle of May, may I think be regarded as a summer visitant to the south of China. Mr. Blyth has examined a specimen, and assures me that it differs from all the Indian species he is acquainted with; and I can find nothing in Europe approaching it. It is more nearly allied to some Australian forms. It is about the size of *A. pratensis*, L. I have named it after Gustavus Schlegel (son of Dr. Schlegel of Leyden), who was the first to procure the bird at Amoy.

Length 6; wing 3·1 to 3·4; tail 2·3; tarsi ·88; bill, along front, ·5.

Bill and feet strong, approaching *Corydalla*, the former with a slight upward curve; throat, axillaries, and centre of belly pure white; upper parts yellowish brown, with a rich chestnut-tinge, the

centres of the feathers carrying very broad stripes of brownish black. In the majority of skins, the feathers of the back are broadly edged with yellowish white; breast and flanks with chestnut-ochre, spotted on the former and streaked on the latter with brownish black; the spots run in single line up either side of the lower neck close to the bill; eye-streak, lore, cheeks, and under neck ochreous; central tail-feathers blackish brown, edged with olive-chestnut; the outer lateral being nearly white, with a darker outer web; the second lateral has only a broad longitudinal pale streak along the inner web; wings blackish brown, edged with olive-brown, the coverts and some of the tertiaries being broadly edged and tipped with cream-white, forming a double bar across the wing; under wing for the most part whitish, with a slight rust-tinge. Bill, upper mandible, and tip of lower deep brown; edge of upper and basal two-thirds of lower pale flesh-colour; inside of mouth pale yellowish; eye-rim blackish brown; iris deep hazel; ear oval, aperture occupying the half furthest from bill; legs and claws brownish flesh-colour. Some specimens are more strongly washed with rusty ochreous, especially on the under wing and under tail-coverts. Some have more olive on the upper parts than others. They vary also in size and intensity of the blackish markings, as also in the pale yellow edgings to the dorsal feathers; but none depart from the well-marked general characters. This Chinese bird may perhaps be considered one of the most striking and handsome species of the difficult and already well-stocked genus *Anthus*.

SALICARIÆ.

CALAMOHERPE FUMIGATA, n. sp.

This migratory species, which passes Amoy in May to the interior of China, I obtained in sufficient abundance in 1861. I place it in this genus, as both in size and form it is more nearly allied to our *C. orientalis*, Schleg., and the *C. turdoides* of Europe than to any others of the *Salicariæ* that I am acquainted with. Its hind toe is much shorter than that of *C. orientalis*, and its hind claw smaller; its tail is much more graduated, each feather ending in a long projecting tip. Perhaps no birds puzzle the classifier so much as do the different species of Reed-birds. Almost each species may be regarded as occupying a section of its own. I do not of course in this include races of the same form from different localities, which have been ranked as species, as, for instance, the *Calamoherpe turdoides*, and its eastern representative, the *C. orientalis*. It is just as well for the facility of determination that such birds should be separated, and this cannot well be done without the trinomial nomenclature, unless subgenera are formed for their specific reception. As naturalists are so averse to admit the double specific name (one of the species, and the other of the locality whence any bird is derived, which shows a sufficient variation to entitle it to be noted, though scarcely strong enough to permit of its being styled a separate species), we must continue forming subgenera,—though, in

my opinion, with regard to the Reed-birds, and to several other groups, double specific names might almost be allowed. We will not now, however, attempt to propose a new subgenus for the reception of this new species; but only point out that, in the character of its tail, this bird is not a typical *Calamohærpe*, if we regard *C. turdoides* as the type.

♂. Length 7·5; wing 3·3; tail 2·7; bill, along culmen, ·7; tarsi 1·1; hind toe and claw 7·5.

♀. Length 7·2; wing 3·1; tail 2·7.

The five lateral rectrices much graduated, all strongly mucronate; first primary quill broad, pointed, and short; the second about one-twelfth shorter than third, which is the longest in the wing.

Bill deep brown on upper mandible and apical half of lower, pale on the edges of both; basal half of lower ochreous, becoming brighter yellow on the rictus, base, and basal edge of upper; inside of mouth bright yellow; legs and claws deep flesh-brown; upper plumage dusky chestnut-brown, tinged with olive, ruddier on the back, wings, and tail; a whitish streak runs over the eyes; throat, centre of breast, and belly white; cheeks and lower neck smoke-grey; sides of breast, axillæ, flanks, and vent brownish buff; irides chestnut-brown.

A younger bird had the bill deep greyish brown on culmen, bluish grey on gonyes, with the rest of the bill pale flesh-colour, yellowish at base and rictus; inside of mouth pale yellow; legs and claws light yellowish or flesh-brown; the under parts have less smoke-grey and buff, and the upper parts are lighter.

All the specimens have several thread-like filaments proceeding from the ends of the occipital feathers. This peculiarity is more observable in the *Drymoicæ* and *Prinicæ* than perhaps in any other group of Warblers. I have of this species eight specimens, all procured at Amoy in May 1861.

CALAMODYTA SORGHOPHILA, n. sp.

This Sedge-Warbler, of which I procured only one specimen at Amoy in May 1861, is smaller than the Continental *C. aquatica*, and more nearly resembles the British *C. phragmitis*, L., from which it differs in the form of its wing, and almost in the unspotted appearance of its upper parts. Upper mandible of bill blackish brown, edge of upper and whole of lower yellow-ochre; rictus and inside of mouth yellow; irides ochreous brown; legs and toes plumbeous, with paler soles; upper parts ochreous olive, with a few rather faint streaks of blackish brown; eyebrow and cheeks ochreous, more buff-coloured on the lores; over the eyebrow a black streak marks each side of the head; under parts yellowish buff, much paler on the throat, under neck, and centre of belly; wing-coverts and tertiaries deep hair-brown, margined with ochreous olive; quills hair-brown, edged with light chestnut-brown; tail pale hair-brown, margined with reddish olive, which colour also tinges the rump; inner edges of the under wing edged with very pale rusty ochre.

Length 4·6; wing 2·23; tail 1·88; tarsi ·7; bill, along culmen, ·42.

First quill very small, narrow, and pointed, about ·34 long; second quill ·28 shorter than the third and fourth, which are equal and longest; the fifth quill ·15 shorter than the third and fourth; the sixth ·22 shorter than the fifth. Tail much graduated, the *rectrices* being narrowed at their tips; tarsi thick; toes and claws strong, the hind toe and claw especially so.

LOCUSTELLA MACROPUS, n. sp.

The Grasshopper-Larks, when procured, are the easiest of all the Reed-birds to distinguish. For if there is any doubt from their external appearance, one has only to examine the tibial tendons. In all three species procured at Amoy, these have proved quite rigid, like those of gallinaceous birds. Mr. Blyth tells me this holds good in the *L. rubescens* of India, and I expect it will be found also so in the European species. It was first brought to my attention by an intelligent Chinese bird-stuffer I used to employ, who was rather astonished to find them so hard as to blunt his scissors. I have, curiously enough, three good species of *Locustella* from Amoy. One, a male of a very richly coloured species, was procured in our garden on the 2nd September, and is evidently a winter visitant to South China. This turns out, as I had expected, to be *L. ochotensis* (Midd. Siber. Reise), from the Amoor and North Japan (Capt. Blakiston). The other two are both summer birds with us, being generally found about in May. The first of these, shot 31st May, 1861, at Amoy, approaches nearer to *L. raii*, but can at once be distinguished by its much larger feet.

Length 5·1; wing 2·3; tail 2; bill, along culmen, ·41; tarsi ·68.

Bill blackish brown on upper mandible; edge of upper and greater part of lower pale flesh-colour; gonys, near tip, brownish and darker flesh-coloured; rictus and inside of mouth pale yellow; legs, toes, and claws very pale yellowish flesh-colour.

First quill minute; second quill rather shorter than third, which is longest. Tail soft and graduated. Our single specimen has only a very few faint spots on the breast, with none on the flanks and under tail-coverts. In point of colouring it is very similar to some phases of the dress of the European *Locustella*, of which it is in fact the Eastern representative.

LOCUSTELLA MINUTA, n. sp.

This again is allied in colouring to the *L. raii*, but is a very diminutive species, strongly marked and spotted; it may perhaps turn out to be a resident species in South China. I have one, shot at Amoy on 18th May, 1861; and Capt. Blakiston procured a pair in Canton in October. The Canton birds are strongly washed with yellow, and are therefore, I presume, birds of the year.

Length 4·7; wing 2·15; tail 1·6, the feathers much graduated; tarsi ·65; bill, along culmen, ·38, to gape ·6.

Bill blackish brown on the culmen and the small apical part of

the gonyx ; the rest of it and inside of mouth pale yellowish flesh-colour ; legs and toes large and thick ; claws thin and pointed, hind claw long and Pipit-like, all of a deep brownish flesh-colour, with paler edges and soles.

First quill diminutive ; second one-twelfth shorter than third, which is longest. Colouring similar to *L. raii*, and perhaps as variable, according to the stage of its plumage.

I have a few other novelties, perhaps more interesting than the above, from China, but I have not now leisure to add them to this list ; I must therefore reserve them for a future paper.

[From the PROCEEDINGS OF THE ZOOLOGICAL SOCIETY OF LONDON,
March 24, 1863.]

[From THE IBIS, January 1863.]

7284 b
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ADDITIONS AND CORRECTIONS

TO THE

ORNITHOLOGY OF NORTHERN CHINA.

BY

ROBERT SWINHOE, CORR. MEM. ZOOL. SOC.

(Plate III.)

R

To commence with the birds of Talién Bay (for notes on which see 'Ibis,' vol. iii. p. 251).

10. *EMBERIZA RUSTICA*, Pall., should be *E. cioides*, Temm. Faun. Japon; the same as *E. ciopsis*, Bp.

12. *ALAUDA LEAUTUNGENSIS*, Swinhoe.

This bird is closely allied to *A. cristata*, S. of Europe, but appears to me to be distinct. It belongs to Boié's subgenus *Galerida*, most of the species of which are generally understood to inhabit desert tracts. In this respect our species differs, for in Talién it seemed quite as partial to the corn-fields as the true *Alauda*. None of the Russian ornithologists (Pallas, Midden-

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2 Mr. R. Swinhoe on the Ornithology of Northern China.

dorff, or v. Schrenck) notice a Crested Lark throughout Siberia; I feel, therefore, a greater confidence in considering my bird distinct.

17. COLUMBA LEUCOZONURA, Swinhoe.

This is certainly the Pigeon which Pallas, in his 'Zoograph. Rosso-Asiat.' (i. p. 560), describes as a rock-frequenting variety of *C. œnas*, whence Bonaparte names it *C. rupestris*. My name must therefore sink into a synonym.

Now let us turn to the birds of Peking ('Ibis,' vol. iii. p. 323). To this list my investigations, since my arrival in England, enable me to make several necessary corrections; and a fine series of skins, collected by Mr. Fleming, of the Royal Artillery, and kindly submitted for my inspection by Mr. Whiteley, naturalist, of Woolwich, places it in my power to record several important additions.

3. EAGLE BUZZARD. *Buteo* — ?

The want of a defined tooth in the beak in my specimen led me to refer this bird to the genus *Buteo*. It is a specimen of the Saker Falcon—*Falco sacer* of Schlegel.

5. PIED HARRIER. *Circus* — ?

The bird observed by me must have been *Circus melanoleucus* (Gm.), as Mr. Whiteley's collection contains one of that species. It cannot therefore be referred to our Amoy Harrier, which Mr. Gurney identifies with *C. spilonotus*, Kaup.

9. ACCIPITER NISUS ?

This specimen, as well as those procured by me in South China, are all referred by Mr. Gurney to the true *A. nisus* of Europe.

From Mr. Whiteley's series I am enabled to add to the Peking list four other *Accipitres*, namely,—

(1.) POLIORNIS PYRRHOGENYS, Schleg. Faun. Japon.

There are in Mr. Fleming's collection a pair of Buzzards, in worn plumage, which Mr. Gurney considers to be of this species.

(2.) THE HOBBY. *Falco subbuteo*, L.

(3.) ACCIPITER SOLOËNSIS, Horsfield.

(4.) ACCIPITER GULARIS, Schleg. Faun. Japon. ?

Larger than the last, with longer bill, but without the streaks on the throat. The British Museum has one of this species from Shanghai. This must, for the present, be doubtfully referred to the Japanese bird.

10. TAWNY OWL. *Otus brachyotus*, L. ?

Erase the note of interrogation.

To the Owls I can now add

(1.) OTUS VULGARIS, Fleming.

(2.) SCOPS JAPONICUS, Schleg. Faun. Japon.

Probably identical with *S. bakkamaena*, Pennant, of India.

(3.) NINOX JAPONICA, Temm. Faun. Japon.

Mr. Gurney considers the single specimen of this to be rather referable to the Japanese than to the Indian and Malasian *N. scutulatus*, Raffles.

13. SWALLOW. *Hirundo rustica*, L.

The oldest name for this form of the Common Swallow appears to be *H. panayana*, Gmelin, and not *H. javanica*, Sparrm.

14. TIGER-SWALLOW. *Hirundo daiirica*.

Should be *H. daiirica*, Linn., nec Pallas. The synonym applied by the latter is *H. alpestris*.

15. SAND-MARTIN. *Cotyle riparia* ?

Is undoubtedly the *C. sinensis* of J. E. Gray. It is smaller than, and quite distinct from, *C. riparia*. I have lately procured this species at Amoy.

To these three Swallows we can now add a fourth; for Mr. Fleming's series contains a mature specimen of a House-Martin (*Chelidon*), but unfortunately with its wings clipped. I exhibited this bird, with the rest of the North-China skins lent me by Mr. Whiteley, before the Zoological Society, on the 25th of November; and I will consequently extract from the paper then read my remarks on the differentiation of this species from its fellows of the

genus. "In this genus there have hitherto been only two recognized species—the European Martin (*C. urbica*, L.) and the Cashmere Martin (*C. cashmiriensis*, Gould), the Nipal Martin (*Delichon nipalensis*, Moore) being of an intermediate form between the true Martins and the Sand-Martins. The Cashmere Martin is at once distinguishable from its English congener by its much smaller size, by its deep-brown axillaries, and by its shorter and much less furcate tail, as also by the browner colour of its upper parts. That it is a good species there can be no doubt. Mr. Whiteley's specimen, in the steel-blue colour of the upper parts, assimilates to the European species, but differs from it strikingly in its smaller size, in its much less emarginate tail, in its deep-brown axillaries, and in having the whole of the upper tail-coverts pure white instead of steel-black at the tips. Its breast, moreover, shows no sign of the partial brown band of the House-Martin. Now, strange enough Capt. Blakiston has brought from Hakodadi, Japan, another Martin, which, on the other hand, resembles *C. cashmiriensis* in its proportions, in the colour of the back, and in the almost even tail, but differs from it in having a black chin, black instead of brown axillaries, and in having the ends of the lower tail-coverts broadly tipped with black. Capt. Blakiston assures me that his specimen is a mature male, shot in July."

The species of the genus *Chelidon* will therefore now stand as follows:—

(1.) *C. urbica*, L.

Hab. In Europa.

(2.) *C. cashmiriensis*, Gould.

Minor præcedente: cauda brevior, subfurcata; partibus superioribus atris, vix purpureo-splendentibus: axillaribus fuscis.

Hab. In Cashmiria.

(3.) *C. blakistoni*, n. sp.

Simillima *C. cashmiriensis*, sed mento, axillaribus et tectricum infra-caudalium apicibus atro-fuscis: gula nivea: subtus fuscescens, rachidibus plumarum multarum, præsertim crissi et etiam uropygii, fuscis.

Hab. In Japoniæ ins. Yesso.

(4.) *C. lagopoda*, Pallas.

Similis *C. urbica*, sed minor, subtus nivea: cauda minus furcata: axillaribus saturate fuscis: tectricibus supracaudalibus niveis, rachidibus plumarum tenuissime fuscis.

Hab. In Siberia (Pallas); in China boreali (Fleming).

Before the Zoological Society I pointed out the undoubted distinctness of Mr. Whiteley's bird, from Peking, from the European bird, and proposed to name it after that gentleman. But I find, on reference to Pallas's 'Zoographia Rosso-Asiatica' (vol. i. p. 534), that the Martin therein described, from Siberia, under the above name, and referred by Pallas himself, and since then by Middendorff* and von Schrenck†, to *C. urbica* of Linnaeus, answers in every respect to the bird from Peking, and by no means tallies with the European House-Martin. I feel therefore bound to lay aside my name, and to apply to it the older denomination given to it by Pallas, which has hitherto been considered synonymous with *C. urbica*.

18. WARBLER.

The bird observed by me was probably the same as one in Mr. Fleming's collection, which is identical with Mr. Blyth's *Arundinax olivaceus*. This again answers to *Salicaria aëdon*, Pallas, as figured in v. Schrenck's Amur-Reise, i. pl. 12. There is also in this series a specimen of *Salicaria cantillans*, Schlegel.

19. GRASSHOPPER-LARK.

This must have been *Locustella ochotensis* (*Sylvia ochotensis*, Midd. Reise, p. 185, pl. 16. figs. 7, 8), described from Siberia. Capt. Blakiston's Hakodadi series contains one of this bird.

22. BLUE-THROATED WARBLER.

Mr. Fleming has brought from Peking two skins of this bird, both of which have the red spot on the breast, in place of the white spot, and are therefore referable to *Cyanecula cærulecula* (Pallas).

24. BLUE-TAIL.

Our specimens of this bird agree with Japanese examples, which differ from *Ianthia rufilata*, Hodgson, of the Himalayas, in having a white eyebrow-mark where the latter has only a bright blue one, and in being more dingy on the upper parts.

* Sib. Reise, p. 189.

† Amur-Reise, p. 388.

The Siberian specimens in the British Museum, marked *cyanura*, again differ from both in having a rufescent eye-streak, and in having the throat and breast reddish buff-colour instead of white. Ours will stand as true *Ianthia cyanura* (Schleg.) of the 'Fauna Japonica.'

To the Robin-Warblers I can now add a South-China bird lately procured from Peking, which I described in 'The Ibis,' vol. iii. p. 262. My description, however, was from a bird not fully matured; I mean the *Larvitora gracilis*, Swinhoe. This species much resembles *L. cyanea* of Northern India in form, and a good deal in colouring; but its wings are shorter and its bill longer. *L. cyanea* has the lower neck, breast, and flanks a fine reddish buff, instead of pure white as in our species,—its chin and two streaks proceeding from it only being white. It also has a narrow white eye-streak, which is wanting in our species. As I have before described only the immature bird, I will now add a short note of the peculiar features of the adult male:—

LARVIVORA GRACILIS, mihi.

Supra cyanea: subtus nivea: linea a rictu colli latera utrinque ad ulnam descendente nigra: remigibus fuscis: rostro nigro: cruribus pedibusque pallide carneis.

27. RIBBON-TAILED FLYCATCHER.

From the skins brought home by Mr. Fleming, this appears to be *Tchitrea incei*, Gould, which differs from *T. affinis*, of Malacca, in having a much smaller bill.

30. PIED-TAIL FLYCATCHER.

This is the *Muscicapa leucura* of Gmelin and the *M. albicilla* of Pallas. Our skins of this bird agree with those from India; but I have not been able to compare them with specimens of the *Erythrosterna parva* of Europe, as there are none of the latter in the British Museum.

To the Flycatchers I can now add

Xanthopygia leucophrys, Blyth, of India.

Strange that this species should occur in the north, and not the ordinary *X. narcissina* of Japan.

Niltava cyanomelæna (Schleg.), *Muscicapa cyanomelæna* of the Faun. Japon.

33. BROWN WREN. *Phylloscopus fuscatus*, Hodgson.

This is identical with skins in the British Museum from Siberia, marked *Sylvia sibirica*, Pallas.

34. CROWNED WREN. *Phylloscopus coronatus* (Schlegel).

All doubt about this species is at an end, as Mr. Fleming has brought specimens of it from Peking.

39. PALE REDWING.

Should be *Turdus pallens*, Pallas (*T. obscurus*, Gmelin). *T. pallidus* of Gmelin is the *T. daulias* of the 'Fauna Japonica.'

40. RED-TAILED FIELDFARE.

This is, I find, the winter plumage of *Turdus ruficollis*, Pallas.

To these Thrushes we may add, from Peking,

Turdus sibiricus, Pall.,

T. fuscatus, Pall., and

Petrocincla manilensis, Gmelin.

41. MONTICOLA — ?

This Thrush has turned out, as I surmised, a new species. In my note, p. 332, I observe "abundant" has been misprinted for "aberrant." Our species is rather a tree-bird than a rock-bird, like the Himalayan species *cinclorhynchus*, to which it is closely affine, and which has rightly enough been made the type of another genus, *Oræcetes*. The bird I procured was not quite mature; but Mr. Fleming's specimen (a fine adult male) afforded me an opportunity of describing it at the meeting of the Zoological Society. Our species is smaller in size, and has a shorter and more robust bill, than *O. cinclorhynchus*, which is at once distinguishable from ours by its throat and neck being blue-grey like the crown, by the blue edging of its wings and tail, and by its having the white that adorns the wing extending over the six inner tertiary quills instead of only over the second and third consecutive feathers.

ORÆCETES GULARIS, n. sp. (Plate III.)

Crown of the head, extending down the back of the neck, and carpal region of the wings clear French or lazuline grey. Loral space, sides of the neck, under parts, rump, and upper tail-coverts deep reddish buff. Auriculars, onwards to the back, back, sca-

pulars, and lesser wing-coverts black. Wings and tail hair-brown, with a surface-wash of pale grey, chiefly conspicuous on the basal half of the latter; the feathers of the wing edged with pale buff, the greater coverts and tertials being strongly tipped with the same. A white spot, comprising the basal portions of the outer webs of the 2nd, 3rd, 4th, and 5th tertiaries, ornaments the wing. The singularly distinctive character whence I have taken its name consists in a white line, which, starting from the centre of the chin, runs down in front quite to the breast, broadening as it descends to the form of an isosceles triangle, a line of black spots edging for some distance the rufous that flanks its sides. Bill blackish brown, with bright yellow rictus inside the mouth. Legs and claws brown, strongly washed with ochre. Iris deep brown.

Total length 7 inches; wing 4; tail $2\frac{8}{10}$.

43. PIED WAGTAIL.

Under this head we may note my species, *Motacilla ocularis*, a specimen of which, in full summer plumage, with grey back, is comprised in Mr. Whiteley's series. This bird resembles *M. lugubris*, though more delicately formed; but is always distinguishable by the carpal region being grey instead of black, and in its summer plumage by its grey back. There is, moreover, less white on the wing. Mr. Blyth identified my bird with *M. dukhunensis*, Sykes; but as I have taken the trouble to examine this species in the East Indian Museum, I can confidently assert that *M. dukhunensis* is one of the *M. alba* group, and not one of the White-winged group so conspicuous for the black line through their eyes.

45. YELLOW QUAKETAIL.

The specimens of this bird brought by Mr. Fleming agree with *Budytes cinereocapilla* of Europe, the wing-coverts only being a little more distinctly tipped with yellow.

46. WOOD WAGTAIL.

This is the true *Nemoricola indica*, Gmelin, as Mr. Whiteley's specimens testify.

51. JAPANESE LARK.

Our two specimens of the Peking Lark do not agree with the

Japanese bird in Capt. Blakiston's collection, which seems to be a true Woodlark. Ours are of the size and form of *Alauda arvensis*, L., but paler, without any sign of the greenish yellow with which English Larks are tinged in winter. Though both males, they have moreover no appearance of crests. I am inclined to think that they will turn out to be distinct; but for the present I will follow the Russian ornithologists in classing the Peking species with the British bird.

To the Larks I must now add a Shore-lark identical with *Otocorys penicillata* of Gould.

59. The RUDDY HAMMER is *Emberiza pithyornis* of Pallas (Zoogr. Rosso-Asiat. ii. p. 37).

To the Buntings I must add a bird, procured by Mr. Fleming, allied to *Emberiza cioides*, which answers entirely to a new species from Kumaon, described by Mr. Moore as *E. stracheyi*. In full plumage these birds are at once distinguishable by their black heads and chin, marked with a stripe of white over the crown, another along the eyebrow, and a third from the lower mandible to the nape.

Among the Finches Mr. Whiteley has one I have not noted, the *Carpodacus erythrinus*, Meyer.

72. BLACK CROW.

This has wrongly been set down as *Corvus japonicus*. It is rather the Chinese representative of *C. corone*, L., which Mr. Gould has designated *C. sinensis*. I have since seen *C. japonicus* in Capt. Blakiston's collection, from Japan. It has a strong bill, like a Raven.

To the Crow group I may add a Chough. The only specimen of this bird in Mr. Fleming's collection is immature, and has clipped wings. It will probably turn out to be the true *Fregilus graculus*, L., which, as I see from the East Indian Museum, also occurs in Java.

78. RED-CHEEKED STARLING.

This was wrongly referred to *Sturnus pyrrhogenys*. Mr. Fleming's bird is doubtless *S. dauricus*, Pall., which also occurs in India and Java.

80. GREEN WOODPECKER, Temm. *Gecinus canus*.

Capt. Blakiston has, from the Yangtsee River, a smaller species, with black hind neck, referable to *G. guerinii*, Malherbe.

81. LARGE PIED WOODPECKER.

This differs from all the four southern forms described by M. Malherbe. It has the tail of *Picus luciani*, and the body of *P. cabanisi*. All I can at present say of it is, that it is one of the difficult *P. major* group, which seem to vary too much in the same locality to admit of splitting into numerous species. I will endeavour to work out my series from various parts of China, with the help of M. Malherbe, and hope to be able to publish the results at some future date.

82. PIED WOODPECKER.

This is a wonderfully close representative of *Picus hyperythrus*, Vigors, of the Himalayas,—too close, indeed, for me to attempt to separate it. It has, however, less red on the sides of the neck than usually occurs in the specimens I have seen from the Himalayas, and the back appears to be more banded.

83. SMALL PIED WOODPECKER.

This species is evidently distinct from any of those figured in M. Malherbe's Monograph of the *Picidae*. It is one of the black spark-headed group allied to *P. mitchelli*, but differs from all in having the cheek and moustache-streaks brownish grey instead of black. For this species I now propose the name

PICUS SCINTILLICEPS, n. sp.

Affinis *P. mitchelli*; sed strigis auricularibus mystacibusque griseo-fuscis: capitis vertice cano: naribus strigaeque oculari albis: subtus fusco-ochraceus, nigro longitudinaliter striatus: supra maculis fasciisque albis latioribus: occipite nigro; in maribus solum utrinque flammeo ornato. Long. tota 6, aë 4, caudæ 2·1, poll. et dec. Brit.

84. Mr. Fleming's collection contains a specimen of the veritable English Cuckoo, *Cuculus canorus*, L.

To the Drongo Shrikes I have to add that curious bird, *Chibia hottentota*, L., of the plains of India, which I lately noted from Amoy. This has since been procured at Peking.

106. SNIPPIT. *Tringa* — ?

This turns out to be the true *Tringa pectoralis*. I have also procured it at Amoy.

109. LESSER SNIPPIT.

This bird appears to be *Tringa subminuta* of Middendorff (Sibir. Reise, ii. p. 22).

To the Snippits we may add the Common Dunlin, which is also abundant, *Tringa alpina*.

Among the Sandpipers must be included *Totanus fuscus* and *Terekia javanica*.

121. CURLEW.

My specimens I did not carefully examine at the time. I find now that they have no white on their rumps. They were young birds, and therefore hard to identify; but I am strongly of opinion that they are to be referred to *Numenius australis*, Gould, of Australia, already noticed by v. Schrenck as occurring in Amoorland (Amur-Reise, i. p. 426).

To this group we must also add the Bar-tailed Godwit, *Limosa lapponica*, from Peking.

Among the Herons, Mr. Fleming has brought away *Ardetta sinensis*.

Mr. Fleming's collection also comprises a Rail and a Crane, respectively identical with the species found in India—*Rallus indicus*, Blyth, and *Porzana bailloni* (Vieill.).

159. JAVAN TERN.

Sterna javanica, Horsf., I find is not a true *Sterna* after all. Our bird appears to be the true *Hydrochelidon nigra*, L.

In conclusion, I have to record my best thanks to Mr. Whiteley for permitting me to examine and take notes from his series of Peking birds before they were distributed.

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[From the PROCEEDINGS of the ZOOLOGICAL SOCIETY OF LONDON,
November 25, 1862.]

ON SOME TIENTSIN BIRDS, COLLECTED BY MR. FLEMING,
R.A., IN THE POSSESSION OF MR. WHITELEY. BY ROBERT
SWINHOE, ESQ., CORR. MEMB. K

A collection of birds, made in the neighbourhood of Tientsin by Mr. Fleming of the Royal Artillery, having come into the possession of Mr. Whiteley, that gentleman has placed them in my hands for inspection and identification. The series comprises only two novelties which have not hitherto been described; but most of the birds are interesting on account of the locality. I will proceed, without further comment, to give a list of them, with what few remarks I may deem necessary.

1. POLIORNIS PYRRHOGENYS, Temm. Faun. Japon.

There are here two skins, in worn plumage, which Mr. Gurney considers the same as the Japanese species.

2. CIRCUS MELANOLEUCUS, Gmelin.

I observed this bird myself near Tientsin. The single specimen in this collection is rather large.

3. FALCO SUBBUTEO, L.

4. FALCO VESPERTINUS, L.

5. ACCIPITER SOLOENSIS, Horsf.

There are two Sparrow-Hawks, one of which, a male, is evidently this species, and agrees well with specimens procured in the South of China. The other is also a male, but apparently different. It is, however, identical with skins in my collection from Canton, Amoy, and Formosa. I should be inclined to consider this *A. gularis*,

Temm., of Japan, were it not that the black streaks on the throat are wanting. Mr. Gurney is inclined to consider it an undescribed species.

6. OTUS VULGARIS, Fleming.

The European species.

7. SCOPS BAKKAMÆNA, Pennant.

Probably synonymous with *S. japonicus*.

8. NINOX JAPONICUS.—*Strix hirsutus japonicus*, Faun. Japon.

This Mr. Gurney considers the Japanese rather than the Indian bird.

9. ARUNDINAX OLIVACEUS, Blyth.

This agrees perfectly with an Indian specimen in the British Museum, as also with a figure in Von Schrenck's work on the Zoology of Amoorland, named *Salicaria (Calamoherpe) aëdon*, Pall. On referring to Pallas's 'Zoographia,' I find the bird there described as *Turdus aëdon*,—*Muscicapa aëdon* being quoted as a synonym from an older work, viz. Pallas's 'Travels.' The specific name *aëdon* ought therefore to have the precedence; but as the larger Nightingale is designated by that term, I should say it would be as well to retain Blyth's name.

10. SALICARIA CANTILLANS, Temm. Faun. Japon.

Apparently this bird, hitherto only known from Japon.

11. CYANECULA SUECICA, L.—*C. cærulecula*, Pall.

The red-spotted variety, in every way similar to the European bird.

12. CALLIOPE CAMTSCHATKENSIS, Gmel.

13. IANTHIA CYANURA, Pallas.

Agrees with Japanese specimens, which differ from *I. rufilata*, Hodgs., in having a white eyebrow-mark, where the latter has only a bright blue one, and in being more dingy in the upper parts. The Siberian specimens in the British Museum again differ from both in having a rufescent eye-streak, and in having the throat and breast buff-colour instead of white.

14. LARVIVORA GRACILIS, mihi, Ibis, 1861, p. 262.

This pretty species I have procured in the South of China, whence I described and named it in the 'Ibis.' It much resembles *L. cyanea* of Blyth in form, and a good deal as to colouring. Its bill, however, is longer, and its wings shorter. Instead of having the under parts pure white, as in this species, *L. cyanea* has the lower neck, breast, and flanks a fine red buff, the chin and two streaks proceeding from it only being white. *L. cyanea* is also distinguished by a narrow pure white eye-streak.

15. PRATINCOLA INDICA, Blyth.

16. TCHITREA INCEI, Gould.

A male, female, and mature male in white dress of this species, which differs from *T. affinis*, of Malacca, in having a much smaller bill.

17. ERYTHROSTERNA ALBICILLA, Pallas.—*E. leucura*, Gmelin.

Agrees with Indian specimens of this bird in the Museum.

18. XANTHOPYGIA LEUCOPHRYS, Blyth.

It seems strange that this species should occur in the north, instead of the ordinary Japanese species, *X. narcissina*, Temm.

19. NILTAVA CYANOMELÆNA, Temm. Faun. Japon.

One specimen.

20. PHYLLOSCOPUS CORONATUS, Temm. Faun. Japon.

21. ANTHUS RICHARDI, Vieillot.

22. NEMORICOLA INDICA, Gmelin.

Identical with Indian specimens in the British Museum.

23. BUDYTES CINEREOCAPILLA, Savi.

Almost identical with those from South Europe, the wing-coverts only being a little more distinctly tipped with yellow.

24. MOTACILLA BOARULA, L.

25. MOTACILLA OCULARIS, Swinhoe.

Like *M. lugubris*, but with perennially grey back, less white on the wings, and carpal region grey instead of black. Of *M. dukhunnensis*, Sykes, with which Mr. Blyth compares this bird, I have seen a specimen in the Indian Museum. It is not one of the white-winged group, and wants the black eye-streak—approaching rather *M. alba*, L.

26. ZOSTEROPS JAPONICUS, Temm. Faun. Japon.

The true *Z. japonicus* differs from our southern species, *Z. simplex*, mihi, in its larger size, in rust-coloured flanks, and in wanting the first primary quill-feathers.

27. TURDUS SIBIRICUS, Pallas.

In full male plumage.

28. TURDUS PALLENS, Pallas.

29. TURDUS FUSCATUS, Pallas.

30. PETROCINCLA MANILLENSIS, Gmelin.

31. *ORCETES GULARIS*, n. sp.

In my visit to Peking, I procured a specimen of this bird in not quite mature plumage, and noted it in my list in the 'Ibis,' 1861, p. 332, no. 41, as a new species. Mr. Fleming's specimen, being a fully matured male, affords me an opportunity of now describing it. It is closely allied to that interesting and beautiful form, *O. cinclorhynchus* of the Himalayas, being, like it, a tree-bird, rather than a rock-bird. Our species is smaller in size, and has a shorter and more robust bill. *O. cinclorhynchus* is at once distinguished in having the throat and neck a blue-grey, like the crown, in having the wings and tail edged with blue, and in having the white spot that adorns the wing on the six inner tertiary quills, instead of on only the second and three consecutive feathers. I will now proceed at length to define the species.

ORCETES GULARIS, n. sp.

Crown of the head, extending down back of neck, and carpal region of the wings clear French or lazuline grey. Loral space, sides of neck, under parts, rump, and upper tail-coverts deep reddish buff. Auriculars, onwards to the back, back, scapulars, and lesser wing-coverts black. Wings and tail hair-brown, with a surface-wash of pale grey, chiefly conspicuous on the basal half of the latter. The feathers of the wing edged with pale buff, the greater coverts and tertials being strongly tipped with the same. A white spot, comprising basal portions of the outer webs of the second, third, fourth, and fifth tertiaries, ornaments the wing. The singularly distinctive character whence I have drawn its name consists in a white line which, starting from the centre of the chin, runs down in front quite to the breast, broadening as it descends to the form of an isosceles triangle, a line of black spots edging for some distance the rufous that flanks its sides. Bill blackish brown, with bright yellow rictus, and inside to mouth. Legs and claws brown, strongly washed with ochre. Iris deep brown. Total length 7 inches, wing 4, tail $2\frac{8}{10}$.

32. *OTOCORYS PENICILLATA*, Gould.

This is identical with a skin from the Altai Mountains in Mr. Gould's collection, marked *O. sibirica*; but as no authority is given for that designation, I have preferred retaining the above name, which is synonymous with *O. albigula*, Brehm.

33. *EMBERIZA RUTILA*, Pallas.

A fine male.

34. *EMBERIZA STRACHEYII*, Moore.

This agrees well with a mounted skin from Kumaon, in the East Indian Museum, bearing the above denomination.

35. *FRINGILLA MONTIFRINGILLA*, L.36. *CARPODACUS ERYTHRINUS*, Meyer.

37. FREGILUS GRACULUS, L.

An immature specimen, with clipped wings. It is smaller than our English specimen, and has smaller tarsi; these may, however, be attributable to its immaturity. The true *F. graculus*, L., appears also to occur in Java, apud Moore.

38. STURNUS CINERACEUS, Temm.

39. STURNUS DAURICUS, Pall.

40. YUNX TORQUILLA, L.

41. GECINUS CANUS, Gmel.

A female.

42. PICUS MAJOR, L.

One specimen of this form is most closely allied to *P. luciani* of Malherbe; but as the two examples I have, from the same locality, differ a good deal in many points held to be of specific value, I do not well see how the numerous variations from the normal *P. major* throughout China can be properly identified by the apparently unstable characters pointed out by M. Malherbe.

43. PICUS HYPERYTHRUS, Vigors.

The female specimen in this collection and a male in my own do differ slightly from the Himalayan specimens: ours have more rufous on the neck, and the back more banded with black and white; but the general characters are so entirely the same that I do not feel justified in separating them.

44. CUCULUS CANORUS, L.

One skin, identical with English specimens.

45. DICRURUS MACROCERCUS, Lath.

46. CHIBIA HOTTENTOTA, L.

Very similar to Indian specimens.

47. LANIUS BUCEPHALUS, Temm. Faun. Japon.

48. CHARADRIUS LONGIPES, Temm.

In fine summer plumage.

49. TRINGA SUBARCUATA.

In fine summer plumage.

50. TEREKIA JAVANICA.

In fine summer plumage.

51. TOTANUS FUSCUS.

In fine summer plumage.

52. *TOTANUS CALIDRIS*, L.

In fine summer plumage.

53. *LIMOSA RUFA*.

In fine summer plumage.

54. *ARDETTA SINENSIS*, Gmel.55. *RALLUS INDICUS*, Blyth.

Identical with Indian specimens.

56. *PORZANA BAILLONI*.

Identical with British specimens.

I have purposely deferred to the last a skin, unfortunately with the wings clipped, of a species of House Martin (*Chelidon*). Of this genus there have hitherto been only two recognized species—the common European Martin (*C. urbica*, L.) and the Cashmere Martin (*C. cashmerensis*, Gould), the Nepal Martin (*Delichon nipalensis*, Moore) being of an intermediate form between the true Martins and the Sandmartins. The Cashmere Martin is at once distinguishable from its English congener by its much smaller size, by its deep brown axillaries, and by its shorter and much less furcate tail, as also by the browner colour of its upper parts. That it is a good species, there can be no doubt. Mr. Whiteley's specimen, a mature bird, in the steel-blue colour of the upper parts assimilates to the European bird; but differs from it strikingly in its smaller size, in its much less emarginate tail, in its deep brown axillaries, and in having the whole of its upper tail-coverts pure white, instead of partially steel-black. Its breast, moreover, shows no sign of the partial brown band of the House Martin. Now, strange enough, Capt. Blakiston has brought from Hakodadi, Japan, another Martin, which, on the other hand, assimilates to *C. cashmerensis* in its proportions, colour of the back, and almost even tail; but differs from it in having a black chin, black instead of brown axillaries, and in having the ends of the lower tail-coverts broadly tipped with black. For the Japanese species I would suggest the name *C. blakistoni*, after its discoverer; and for the Pekin bird the name *C. whiteleyi*, after the gentleman to whom this collection belongs, and to whom we are indebted for the privilege of exhibiting before this Society this interesting series of North China birds.

Note.—Since the above was read before the Society, I have perused carefully the description of the House Martin of Siberia, given in Pallas's 'Zoographia Rosso-Asiatica,' and find that the bird therein described at full length answers in every respect to Mr. Whiteley's bird from Pekin, and does not agree with the European Martin (*Chelidon urbica*, L.), to which it has been wrongfully referred by later Russian ornithologists. The name of the Pekin species will therefore have to stand *Chelidon lagopoda*, Pallas.—R. S.

a bar of rich chestnut near the tip of all the feathers of the flanks; thighs cinnamon-brown; bill and legs blackish brown.

Total length, $9\frac{1}{2}$ inches; bill, 1; wing, $5\frac{1}{8}$; tail, 4; tarsi, $1\frac{3}{4}$.

Female similarly coloured.

The young, at about a month old, have acquired much of the colouring of the adults, but the centre feathers of the back and shoulders are darker, with lighter edges, giving this part of the plumage a very sparkling appearance.

NUMENIUS RUFESCENS, Gould.

Head, neck, upper and under surface reddish fawn-colour, deepest and most conspicuous on the rump and tail-feathers; down the centre of each of the feathers is a streak of blackish brown, broadest and most conspicuous on the back, rump, and upper tail-coverts; primaries blackish brown, strongly toothed on their inner margins with greyish white; tail-feathers irregularly crossed with blackish brown; thighs light buff.

Total length, 23 inches; bill, 7; wing, $12\frac{1}{2}$; tail, $3\frac{3}{4}$; tarsi, 5.

This is a very fine species, about the size of *Numenius arcuatus* and *N. australis*, from the former of which it differs in the absence of the white rump, and from the latter in its rufous colouring.

10. ON A BIRD SUPPOSED TO BE THE FEMALE OF CROSSOPTILON AURITUM, PALLAS, FROM NORTHERN CHINA. BY ROBERT SWINHOE, F.Z.S., H.M. CONSUL AT FORMOSA.

My friend Dr. Lamprey, of the 97th Regiment, stationed at Tsin-tsin, sent me, while I was at Amoy, the bird I now exhibit, in skin, with the statement that he had seen several of the same species, all of which were similar in plumage. My specimen I have taken to the British Museum, and compared, with the kind assistance of Mr. G. R. Gray, with Hodgson's bird from the Himalayas. That they are closely allied species there can be no gainsaying; but of their distinctness there can be little doubt. Our bird is much larger, has longer tarsi, bill higher at the base, white throat, with longer ear-feathers, deep brown plumage, and a differently shaped tail. From the development of its cheek-skin, its form of bill, as well as the appearance of its plumage, it bears the mark of an old bird; and from the shape of its tail one would infer that it was a male. But, on examining its legs, we find no spur, only a hard callosity, such as distinguish the females of the *Phasianidæ*. I am rather inclined, therefore, to concur with Mr. G. R. Gray in considering the bird a female, but the masculine form of tail is rather a difficulty. In comparing it with the specimen of *Crossoptilon* in the Museum, it is, however, easy to see that the tail of the Peking bird is proportionately smaller, and, judging from analogy, it is rather improbable that the mature male would wear such a dingy livery. Now, supposing this bird to be a female, we have no hesitation in saying that it is not the female of the *Crossoptilon* from Thibet; we must, therefore, compare it

with the description of the *C. auritum* given by Pallas in his 'Zoo-graphia Rosso-Asiatica,' vol. ii. p. 86. Pallas makes no mention of proportions and measurements, and, further, he tells us that the only skin he received from China had no legs; but the shape of the tail, with its eighteen side-feathers and four curved central feathers, answers very nearly, as well as the white throat and ear-plumes, the latter $1\frac{1}{2}$ inch long. But in general colour, and in many respects, they differ. Pallas's bird has the black plumelets on the crown bluish black; throat and ears white; the neck, the whole body as far as the rump, together with the bases of the wings, of one uniform bluish leaden; interior quills same colour as the back; primaries brown, the second, third, and fourth being margined exteriorly with white; tail with the four central tail-feathers curved and comose, of a bluish black; the four nearest *rectrices* on each side widest and entire, curved inwards, and nearly equal in length, blue at their extremities, the rest of the side-feathers decreasing gradually in length, the greater part of *their basal halves* being white, the apical portions bluish black.

Ours, from Peking, has the small plumes on the crown *purplish* black, bordered by an indistinct whitish occipital band. Throat and ears white. Neck deep shining black. Back, belly, and entire wings deep chocolate-brown; vent silky and paler. Rump and tail dingy white, the stems of the tail-feathers deep chocolate-brown, the ends of the tail-feathers being more or less deeply tipped with purplish black, the four central feathers being comose, and the nine others on each side being almost equally graduate and curved inwards.

Now the objections I take against considering this bird the female of *C. auritum*, Pall., arise first from its style of colouring. The male of *C. auritum* has the entire body a bluish leaden. In our bird, consequently, if a female of the same species, we might expect to find a uniform brown. But no; ours has a *black* neck and a *white* rump. The white margins to the quills might be a sexual difference; but it strikes me, from Pallas's description, ours has much smaller and somewhat differently shaped wings. In the tail, too, we should expect greater similarity of colouring, if not of form. In the colouring of its tail *C. auritum* more nearly approaches the *C. tibetanum*, Hodgs. The four central feathers are bluish black; the four next on each side, of *nearly equal* length, are tipped with blue; whereas the entire tail of our bird is dingy white, tipped with purplish black, the four feathers next to the central ones being graduated in much the same proportion as those that follow. I think, therefore, after due deliberation, that our bird, which there seem to be valid reasons for considering a female, is a species the male of which will be more beautiful than either the *C. tibetanum* or the *C. auritum*. If I am rightly informed, our specimen hails from Mantchuria, whereas Pallas's bird came from Mongolia, and Hodgson's from Thibet. For the present, therefore, I appropriate to myself the advantage of the doubt, and propose to introduce this as the female of a new species, which I propose to name *Crossoptilon mantchuricum*.

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Notes on the Ornithology of Northern Japan.

By ROBERT SWINHOE, F.Z.S. *R*

A CASUAL notice in 'The Ibis' (1859, p. 205) of two new species of *Lusciniopsis*, described by Mr. Cassin in the 'Proceedings of the Academy of Natural Sciences of Philadelphia' for 1858, pp. 191-196, has recently led me carefully to peruse the article there referred to. As the avifauna of Japan necessarily lies within the scope of the ornithology of Eastern Asia, to which I particularly devote my attention, I would solicit permission to add a few remarks to the interesting papers already given on this subject by Captain Blakiston (Ibis, 1862, p. 309, and 1863, pp. 97-100).

Captain Blakiston, in his first paper, refers to the article on Japanese birds in Perry's 'Expedition to Japan' (vol. ii. pp. 219-235), but he neglects to add to his Hakodadi list one bird in particular which Mr. Cassin there notes as for the first time observed in Yesso. This is the *Accipiter gularis*, Temm. The occurrence of this small Hawk in the northernmost island is interesting. With regard to such wandering creatures as *Lobipes hyperboreus*, their discovery in Japan is nothing astonishing, as we have already observed them periodically abundant on the Chinese coast.

Mr. Cassin's paper in the Philadelphian 'Proceedings' is entirely devoted to a collection of birds made at Hakodadi, concerning which I have the following remarks to make.

No. 4, *Passer montaninus*, Pall. ? The bill and feet of the Tree-sparrow (so-called) of Hakodadi are noticed as much stronger than those of French specimens. I have specimens from several parts of China varying greatly in these peculiarities, even in birds from the same locality, and therefore cannot regard them as other than individual variations.

No. 6, *Alauda japonica*. The Japanese Lark is doubtless a Wood-Lark, and I think future observation will prove it to be a tree-frequenting species. In form of bill and in many respects it is very similar to the European *Alauda arborea*, L.

No. 11, *Anthus japonicus*, T. & S. This is the first bird not noticed by Captain Blakiston. I cannot help thinking that it will turn out to be the winter plumage of *Anthus cervinus*, Pall., which is a winter visitant to South China, and probably retires to Japan and North China to breed.

No. 18, *Lusciniopsis japonica*. This is undoubtedly the *Locustella ochotensis*, Middendorff, 'Sibirische Reise,' which von Schrenck, in his 'Amurland,' wrongly considers identical with *L. certhiola*, Pall., a much larger bird. Of this species Captain Blakiston also procured a specimen, and in his first paper referred it by mistake to *Calamoherpe cantillans*. In his second paper, at my suggestion, he corrected the mistake (Ibis, 1863, p. 98). His specimen agrees with another that I procured from Amoy during its winter migration, and both these correspond entirely with the description and excellent figure in Middendorff's work. I think a reference to the plate in the 'Sibirische Reise' will convince Mr. Cassin of the truth of my assertion; but I cannot well understand what induced that able ornithologist to place this and the following form (two such unmistakable *Locustella*) in the genus *Lusciniopsis*, which Prince Bonaparte proposed for the reception of that delicate-footed bird the *Pseudoluscinia savi*, or Savi's Warbler.

No. 14, *Lusciniopsis henderstonii*, appears to answer well to my *Locustella macropus* (P. Z. S. 1863, p. 93), that being probably the bird noted from Amoorland by von Schrenck as the Euro-

pean *Locustella*, of which it doubtless is the closest Eastern representative. If really the same (and I strongly suspect them to be so), my name must sink into a synonym, and the species stand as *Locustella hendersonii*.

No. 19, *Sitta sibirica*, Pallas.

Sitta roseilia, Bp., noted by Captain Blakiston in his first list (p. 322), is here quoted as *S. sibirica*, from Pallas's name *Sitta europæa*, var. *sibirica*. Mr. Cassin makes the same remark as Captain Blakiston does in his second paper, on the identity of this form with the *S. uralensis*, Licht.

No. 20, *Squatarola helvetica*, L., is included in Cassin's list, as also is *Charadrius morinellus*, L. The former is well known from Eastern Asia; but surely the latter must refer to the allied form *C. mongolicus*, Pall., though Cassin appears rather positive as to the identity.

No. 23, *Scolopax solitaria*, Hodgs.

The Snipes have been very little studied, and are not at all well known. The Great Snipe, procured by Captain Blakiston from Hakodadi, was the Australian large species *Gallinago australis* (Lath.), and certainly not *G. solitaria*, Hodgs., of India.

No. 24, *Totanus brevipes*, Vieill.

No. 25, *Totanus glottis*, L.

No. 26, *Tringa magna*, Gould.

No. 28, *Tringa minuta*, Leisler.

These would all be naturally expected to occur, as they have also been found on the Chinese coast by myself and others.

No. 29, *Numenius*, about the size of *N. longirostris*, but with shorter bill, smaller than *N. major* or *N. arcuatus*. It is not stated, however, whether this species has a white or a barred rump. If the latter, it would then be the *N. australis*, Gould, which is common in North China and Amoorland, and which we should expect to find in Japan *en route* to Australia. The *Numenius tahitiensis* with the barred rump, allied to *N. phaeopus*, procured from Hakodadi, and noted in Perry's 'Expedition,' vol. ii. p. 228, is very probably the same as the *N. uropygialis*, Gould, of Australia, which occurs throughout the Indian Archipelago, the Philippines, and Formosa. In the latter island, as I have reason to believe, it breeds.

The two remaining birds of Cassin's list are also new to the

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Hakodadi locality—*Limosa lapponica*, L., and *Hematopus ostralegus*, L. The latter bird is well known from Amoorland and China; but the record of the former is certainly interesting, if really correct. The long-legged *Limosa melanura*, L., occurs plentifully in India, and its range has been traced across Eastern Asia into Australia; but the short-legged form is not noted as an Indian bird. In China we get only the closely allied *L. uropygialis* of Australia, which is always to be distinguished by its barred instead of white rump. I suspect, therefore, on closer examination it will be found that the Hakodadi specimens are of the Australian species, which probably, with the Curlew and Snipe, breed in Mantchurian latitudes, and, returning to winter in Australia, touch at the Japanese shores.

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