

not sufficient to enable us to determine the degree of relationship between the avifauna of the Philippine and Celebean areas.

"The absence of the two genera *Criniger* and *Rhipidura* in Celebes constitutes one of the many peculiarities of its ornithology. *Criniger*, represented in the neighbouring Sula Islands by a peculiar species, possesses other representatives in many of the Moluccan islands and throughout the Indo-Malayan subregion.

"*Rhipidura* is still more widely and largely represented in the whole Australian region, and in the Indo-Malayan subregion, having representatives in all the islands of the Malay archipelago, excepting Celebes and the Sula Islands.

"Then, again, the presence of the two genera *Coracias* and *Myiarchus* is equally remarkable; for they are both unknown in any part of the Indo-Malayan region, and only reappear on the mainland of Asia.

"After rejecting all those species whose Celebean origin does not rest upon the most undoubted authority, I find that the number of birds inhabiting Celebes amounts to, at least, one hundred and ninety-three. Of this number sixty-five are peculiar to the island. Twenty more are found also in the Sula Islands, or the Sanghar group, making a total of eighty-five species peculiar to Celebes and the two groups just mentioned. Of the remaining one hundred and eight species, fifty-five have Indian affinities (that is, are elsewhere only found in the Indian region as opposed to the Australian), though many extend beyond the limits of the Indian region; fourteen are found in the Australian and not in the Indian region, and twenty-eight are common to both regions; eight more species seem to be confined to the Moluccan islands; and three, not included above, are doubtfully found beyond Celebes: these are *Elanus hypoleucos*, *Ephialtes menadensis*, and the Celebean form of *Iotreron melanocephala*."

This paper will be published entire in the Society's 'Transactions.'

The following papers were read:—

1. A Revised Catalogue of the Birds of China and its Islands, with Descriptions of New Species, References to former Notes, and occasional Remarks. By ROBERT SWINHOE, F.Z.S.

[Received March 15, 1871.]

1. GYPAETUS BARBATUS, Cuv.; Ibis, 1867, p. 413; P. Z. S. 1870, p. 430.

I have seen, in the museum attached to the Catholic Mission at Peking, a Bearded Vulture, procured by Père Armand David in the mountains west of that city. There is also a specimen of it in the British Museum, marked "China."

PROC. ZOOLOG. SOC.—1871, No. XXII.



## 2. VULTUR MONACHUS, L. ; Ibis, 1867, p. 413.

There are specimens of this Vulture in the Peking Museum, procured by Père David from the mountains in the north-west of the Chelee Province.

## 3. AQUILA CHRYSÆTOS, Cuv. ; P. Z. S. 1870, p. 443.

Eagles were several times seen by myself in the Nankow Pass, on the road from Peking to Mongolia, but I was not able to determine the species. Père David identifies the resident species of these mountains with the Golden Eagle, and mentions meeting with a large variety, with longer bill and white tarse ("Catalogue des oiseaux à Pékin," Nouv. Arch. du Muséum d'Hist. Nat. de Paris, tome iii. 1867), which Mr. Gurney tells me he has seen from Denmark and also from Algeria. Mr. Gurney adds that "the specimens were in other respects in the usual plumage of the *second year*. The Danish examples were certainly large and fine, the Algerian not particularly so. At present I have seen no sufficient difference to make me think that there are two species or races of Golden Eagle."

## 4. AQUILA BIFASCIATA, J. E. Gray.

*Aquila heliaca*, P. Z. S. 1863, p. 259 ; Ibis, 1865, p. 347.

Mr. Howard Saunders has demonstrated to this Society\* that the eastern form of Imperial Eagle differs, in its first plumage at least, from the European bird, and is apparently a distinct species. M. Milne-Edwards refers to Dr. Gray's name a bird sent from Peking by Père David, on which the Abbé remarks, "common on our mountains and in Mongolia." This species has been shot in the immature plumage in winter at Foochow ; and I have noticed it in adult plumage with white scapulars on Ape's Hill, Takow, S.W. Formosa.

## 5. AQUILA AMURENSIS, sp. nov.

*Similis A. clangæ, Pall., sed major.*

M. Milne-Edwards identifies the Tawny Eagle from Peking with *A. clanga* of Pallas ; and Père David notes the occurrence also at the same locality of the smaller allied form, *A. nævia*, Briss. A specimen from the Amoor, kindly sent me by Dr. v. Schrenck, is of large size, and, in Mr. Gurney's opinion, worthy of separation as a third species of this group. I enter this in the present list under the supposition that it will be the same as No. 5 of Père David's catalogue, which he also states to be "common in our mountains and in Mongolia." Mr. Gurney very obligingly compared the Amoor specimen with a female of *Aquila clanga* from Sarepta, on the Volga, and has given me the following measurements :—

	Entire length.	Wing from carpal joint.	Tail.	Tarsus.	Middle toe without claw.
<i>A. clanga</i> ♀ (ad.)...	31 in.	23 in.	11 in.	3½ in.	2¼ in.
<i>A. amurensis</i> ♀ (ad.)	33½ "	26¼ "	12½ "	4½ "	2¼ "

Mr. Gurney writes :—"In plumage, I do not find that it differs

\* See *antea*, p. 37.



from the adult of *A. clanga*, except in having the pale transverse bars on the secondaries lighter in their hue, and therefore more conspicuous, especially on the outer webs.

"It would seem that there are three races of Eagles, only differing in comparative size:—

"*Aquila nævia*. The smallest of the three, found in Egypt, Southern Europe, Smyrna, Palestine, India, and Sumatra (one specimen).

"*Aquila clanga*, Pall. The intermediate race, found at Sarepta, near the mouth of the Volga. Both it and the preceding have been obtained in European Turkey and in Palestine. I have also seen the Sarepta race from Mesopotamia; but how far it extends eastward I do not know.

"*Aquila* (from Amoorland). The largest race. How far it extends westward I do not know."

6. *HALIAËTUS ALBICILLA* (L.); Ibis, 1865, p. 347; P. Z. S. 1863, p. 259.

From the river Yangtze northwards. Seen only occasionally in the south. An immature bird flew on board a ship in the harbour of Swatow, and allowed itself to be captured, in the winter of 1867–68. It fell into my hands. Its iris was clear yellowish brown; cere light bluish grey; feet lemon-yellow, with black claws.

7. *HALIAËTUS PELAGICUS*, Pall.; P. Z. S. 1863, p. 260.

Père David saw this giant Eagle once at Peking, and says that it is well known to the Chinese.

8. *ARCHIBUTEO AQUILINUS*, Hodgs.

*Butaquila aquilina* et *B. leucocephala*, Hodgs.

*Butaquila hemilasius*, Schleg. Faun. Jap.

*Buteo lagopus*, David, Catalogue des oiseaux à Pékin.

*Falco hemilasius*, Temm. et Schleg. Faun. Jap.

In January 1868 a large male Buzzard was shot by Consul Caine at Swatow. Mr. Gurney has determined it to be of this species. Its cere was greenish yellow; iris straw-yellow, redder round the pupil; legs dingy orange-tinted yellow, with black claws. It is not in mature plumage. Père David has sent specimens of the same to the Paris Museum, and writes that it is not rare at Peking and breeds there.

9. *BUTEO ASIATICUS* (Lath.).

*Buteo japonicus*, Temm. et Schleg. Faun. Japon.; Zoologist, 1858, p. 6227; Ibis, 1860, p. 46, 1861, pp. 24, 326, 1863, pp. 210, 1870, p. 87; P. Z. S. 1863, p. 260.

South China to Hainan, and Formosa in winter.

10. *SPIZAËTUS NIPALENSIS*, Hodgs.

*Spizaëtus orientalis*, Temm. et Schleg. Faun. Japon.; Swinhoe, Ibis, 1863, p. 211.

Formosa.



11. *SPILORNIS CHEELA* (Daud.).

*Spilornis hoyi*, Swinhoe, Ibis, 1866, pp. 304, 307, 399, 1867, pp. 409, 410.

Formosa; Amoy (China).

12. *SPILORNIS RUTHERFORDI*, Swinhoe, Ibis, 1870, p. 85.

Hainan.

13. *POLIORNIS POLIOGENYS* (Temm. et Schleg.); Swinhoe, Ibis, 1863, p. 88, 1864, p. 429, 1865, p. 545, 1866, p. 136, 1867, p. 411; P. Z. S. 1862, p. 315, 1863, p. 260, 1870, p. 600.

*Buteo pygmaeus*, Blyth, Ibis, 1865, p. 29.

Formosa; coast of China. Goes as far south in winter as the Tenasserim Provinces.

14. *PANDION HALIAETUS* (L.): Swinhoe, Zoologist, 1858, p. 6227, 1860, p. 7102, 1861, p. 7642, 1864, p. 9224; Ibis, 1860, p. 46, 1861, p. 24, 1863, p. 209, 1865, p. 347, 1870, p. 86; P. Z. S. 1863, p. 260.

Throughout China, Formosa, and Hainan.

15. *FALCO PEREGRINUS*, L.; Zool. 1858, p. 6226; Ibis, 1860, p. 46, 1861, p. 24, 1863, p. 210, 1867, p. 388, 1870, p. 84; P. Z. S. 1863, p. 260.

China, Formosa, and Hainan.

16. *FALCO SACER*, Schlegel; P. Z. S. 1863, p. 260.

*Buteo* —?, Ibis, 1861, p. 326, 1863, p. 88.

Pekin.

17. *HYPOTRIORCHIS SUBBUTEO* (L.); Ibis, 1860, p. 46, 1863, p. 89.

*Falco subbuteo*, P. Z. S. 1862, p. 315, 1863, p. 260.

Amoy; Pekin.

18. *HYPOTRIORCHIS AESALON* (L.).

*Falco aesalon*, Ibis, 1861, p. 327; P. Z. S. 1863, p. 260.

Amoy; Pekin.

19. *TINNUNCULUS ALAUDARIUS*, var. *JAPONICUS*.

*Tinnunculus alaudarius*, Swinh. Ibis, 1860, p. 47, 1861, p. 24, 1866, p. 293, 1867, p. 385, 1870, p. 84.

*Falco tinnunculus*, Ibis, 1861, p. 327.

*Tinnunculus japonicus*, Ibis, 1863, p. 211, 1864, p. 424; P. Z. S. 1863, p. 261.

China, Formosa, and Hainan.

20. *ERYTHROPUS AMURENSIS* (Radde); Gurney, Ibis, 1868, p. 41, pl. 11; P. Z. S. 1870, pp. 436, 448.

*Erythropus vespertinus*, Ibis, 1861, pp. 253, 327; P. Z. S. 1862, p. 315, 1863, p. 260.



Summers at Peking, and collects in large numbers in September before going south. Wanders in winter to India and Africa.

21. *TICHORNIS PEKINENSIS*.

*Falco cenchris*, var. *pekinensis*, Swinhoe, P. Z. S. 1870, pp. 442, 448.

Breeds on the western hills of Peking, and assembles in large numbers in September. Mr. Hodgson's drawing of the Nepal bird (in the British Museum) shows that it is this race of *Tichornis cenchris* that resorts to India.

The adult male has all the wing-coverts grey right up to the scapulars; the inner or short primaries are broadly bordered at their tips with whitish, rufous in the immature; the white on the under quills is  $3\frac{1}{4}$  inches short of their tips.

22. *PERNIS APIVORUS* (L.); David, Catalogue des oiseaux à Pékin.

Père David notes this as found about Peking in autumn. Schlegel has it from Japan (Musée des Pays-Bas, *Pernes*, p. 2).

23. *MILVUS GOVINDA*, Sykes; Swinh. Zoolog. 1858, p. 6227; Ibis, 1860, p. 47, 1861, pp. 25, 253, 326, 1863, p. 210, 1865, p. 546, 1866, p. 121, 1867, p. 236, 1870, p. 88.

*Milvus melanotis*, Ibis, 1865, p. 348, 1867, pp. 409, 411; P. Z. S. 1863, p. 260.

China, Formosa, and Hainan.

24. *MILVUS MIGRANS* (Bodd.).

*Milvus ater*, Gm.

A live specimen of this Kite, said to have been brought from North China, is now living in the Society's gardens.

25. *ASTUR PALUMBARIUS* (L.); P. Z. S. 1863, p. 261, 1870, p. 448.

I have an adult male from Peking, which does not differ from home-shot specimens.

26. *LOPHOSPIZA TRIVIRGATA* (Cuv.); Temm. Pl. Col. 303; Ibis, 1865, p. 547, 1866, p. 395.

Formosa. The Malay form.

27. *ACCIPITER NISUS* (L.); Zoolog. 1858, p. 6227; Ibis, 1861, p. 327, 1870, p. 84; P. Z. S. 1863, p. 261, 1870, p. 443.

*Accipiter* —? Ibis, 1860, pp. 47, 429, 1863, p. 88.

Peking, Amoy, and Canton.

28. *ACCIPITER STEVENSONI*, Gurney; Ibis, 1863, p. 447, pl. 11; P. Z. S. 1863, p. 261, 1870, p. 600.

*Micronisus*, sp.?, Ibis, 1861, p. 25.

*Accipiter gularis*?, Ibis, 1863, p. 89.

Canton to Peking.



29. *ACCIPITER GULARIS*, Schleg. F. J. t. 2; Gurney, Ibis, 1865, pp. 236, 547; P. Z. S. 1863, p. 261.

*Accipiter nisoides*, Blyth, Ibis, 1865, p. 28.

Formosa.

30. *ACCIPITER VIRGATUS*, Temm. Pl. Col. 109; Ibis, 1865, p. 108, 1866, p. 405.

*Micronisus gularis*, Ibis, 1863, p. 212.

Formosa.

31. *MICRONISUS BADIUS* (Gm.); Swinh. Ibis, 1870, p. 84.

Hainan.

32. *MICRONISUS SOLOËNSIS* (Horsf.); Pl. Col. 110, 129; Ibis, 1863, p. 89, 1866, p. 403; P. Z. S. 1862, p. 315, 1863, p. 261.

*Micronisus badius*, Ibis, 1860, p. 359.

*Accipiter virgatus*, Ibis, 1861, p. 264.

Amoy; Pescadores; Shanghai (Brit. Museum); Pekin.

33. *CIRCUS ÆRUGINOSUS*, L.; Ibis, 1865, pp. 349, 352, 1870, p. 87.

Swatow; Amoy; S.W. Formosa; Hainan.

34. *CIRCUS SPILONOTUS*, Kaup; Ibis, 1863, p. 213, pl. 5, 1865, pp. 230, 347, 1870, p. 87; P. Z. S. 1863, p. 261.

*Circus æruginosus*, Ibis, 1860, pp. 47, 359.

Amoy; river Yangtsze; Formosa.

35. *CIRCUS CYANEUS*, L.; Zoolog. 1858, p. 6227; Ibis, 1860, p. 47, 1861, p. 326, 1870, p. 88; P. Z. S. 1863, p. 261.

Amoy.

36. *CIRCUS MELANOLEUCUS*, Gm.; P. Z. S. 1862, p. 315, 1863, p. 261.

*Circus* —?, Ibis, 1861, p. 326, 1863, p. 88.

Tientsin.

37. *CIRCUS CINERACEUS*, Montagu.

River Yangtsze.

38. *CIRCUS PALLIDUS*, Sykes.

*Circus swainsonii*, A. Smith; P. Z. S. 1863, p. 261.

River Yangtsze.

39. *ATHENE PLUMIPES*, Swinhoe, P. Z. S. 1870, p. 448.

*Similis A. glauci, sed pedibus dense plumatis.*

Not common about the Pekin neighbourhood in autumn; is found also in the Lake-Baikal region, according to Tacsanowsky of Warsaw.



40. *ATHENE WHITELYI*, Blyth, Ibis, 1867, p. 313.

*Athene cuculoides*, Ibis, 1861, pp. 25, 265, 1867, p. 406; P. Z. S. 1863, p. 262.

*Ab A. cuculoidi alarum et caudæ fasciis paucioribus distinguenda.*

Amoy; Canton; Foochow; Szechuen. Goes south on the approach of winter.

41. *ATHENE BRODIEI* (Burt.).

*Noctua brodiei*, Burt. P. Z. S. 1835.

Tingchow (Fokien Province). One specimen of this was brought to me at Amoy in January 1867.

42. *ATHENE PARDALOTA*, Swinhoe; Ibis, 1863, p. 216.

*Differt a sp. præcedente ventre medio nigro guttato.*

Formosa.

43. *NINOX JAPONICA*, Temm. et Schleg.; Zool. 1858, p. 6228; Ibis, 1863, pp. 89, 215, 1864, p. 427, 1866, p. 307, 1870, p. 88; P. Z. S. 1862, p. 316, 1863, p. 262.

*Athene scutellata* (Raffles); Ibis, 1860, p. 47.

Amoy; Hainan; Formosa; Tientsin.

44. *BUBO MAXIMUS*, Sibb.; Zool. 1858, p. 6227; Ibis, 1860, p. 47, 1861, pp. 254, 327; P. Z. S. 1863, p. 262.

Amoy, North China.

45. *KETUPA CEYLONENSIS* (Gmel.); Ibis, 1861, p. 27; P. Z. S. 1863, p. 262.

Hongkong.

46. *SCOPS SUNIA*, Hodgs.

*Scops japonicus*, Schleg. Faun. Japon.; Zool. 1858, p. 6228; Ibis, 1863, p. 89; P. Z. S. 1863, p. 262.

*Scops bakkamæna* (Penn.); Ibis, 1860, p. 47; P. Z. S. 1862, p. 316. Amoy in winter; Pekin.

47. *LEMPIJIUS SEMITORQUES* (Schleg.).

*Ephialtes plumipes*, Hume, Scrap Book, Part 1, No. 2, p. 307.

*Digitis supra plumatis.*

Schlegel (Mus. des Pays-Bas, *Oti*, p. 24) cites specimens from Japan and Nepal. Père David has sent it from Moupin (N.W. corner of Szechuen).

48. *LEMPIJIUS GLABRIPES*.

*Ephialtes glabripes*, Swinh. Ann. & Mag. Nat. Hist. vol. vi. 4th series, p. 152.

*Scops semitorques*, Swinh. (*nec* Schlegel), Ibis, 1863, p. 217, 1867, p. 409; P. Z. S. 1863, p. 262.



*Scops* —?, Ibis, 1861, p. 29.

*Scops lempiji*, Ibis, 1861, p. 265.

*Digitis nudis*.

Amoy; Foochow; Canton; Formosa. Differs from the foregoing in having the toes always bare instead of feathered along their upper surfaces.

49. *LEMPIJIUS UMBRATILIS*, Swinh. Ibis, 1870, p. 342.

*Ephialtes lettia*, Ibis, 1870, p. 88.

Hainan.

50. *LEMPIJIUS HAMBROECKI*.

*Ephialtes hambroeki*, Swinh. Ann. & Mag. Nat. Hist. vol. vi. 4th series, p. 153.

*Scops japonicus*, Ibis, 1865, p. 348, 1866, p. 307.

Formosa. Of the *Lempiji* form and type, but small and rufous, and at first sight to be mistaken for *Scops japonicus*.

51. *SYRNIUM NIVICOLUM*, Hodgs. J. A. S. xiv. p. 185; P. Z. S. 1870, pp. 438, 443.

Pekin in autumn.

52. *PTYNX FULVESCENS* (Temm. et Schleg.).

Sent to the Paris Museum by Père David from the Moupin Mountains (N.W. Szechuen).

53. *BULACA NEWARENSIS* (Hodgs.).

*Bubo caligatus*, Swinh. Ibis, 1863, p. 218, 1864, p. 429.

Formosa.

54. *OTUS VULGARIS*, Flem.; Ibis, 1863, p. 89; P. Z. S. 1862, p. 316, 1863, p. 262.

Tientsin.

55. *OTUS BRACHYOTUS* (L.); Ibis, 1861, pp. 26, 327, 1863, p. 89; P. Z. S. 1863, p. 262.

Peking; Canton.

56. *STRIX CANDIDA*, Tickell.

*Strix pithecops*, Swinhoe, Ibis, 1866, pp. 396, 397.

S.W. Formosa.

57. *CAPRIMULGUS JOTAKA*, Temm. et Schleg. F. J.; Ibis, 1861, p. 327, 1870, p. 89; P. Z. S. 1863, p. 263, 1870, p. 439.

*Caprimulgus* —?, Ibis, 1860, p. 47, 1861, p. 30.

*Caprimulgus dytiscivorus*, Swinh. Ibis, 1860, p. 130.

*Caprimulgus swinhoei*, Blyth; Ibis, 1861, p. 263.

China.



58. *CAPRIMULGUS MONTICOLA*, Frankl. P. Z. S. 1831, p. 116.

*Caprimulgus stictomus*, Swinh. P. Z. S. 1863, p. 263.

*Caprimulgus pallidus*, Gray, Zool. Misc. p. 2.

*Caprimulgus* ———?, Ibis, 1860, p. 47, 1861, p. 30.

South China in summer. I have a very rufous and brightly marked female from Amoy, which I at first confounded with the following bird.

59. *CAPRIMULGUS STICTOMUS*, Swinhoe, Ibis, 1863, p. 250, 1866, pp. 315, 402.

Like the last, but smaller, with the toes, especially the middle one, conspicuously longer. Resident in Formosa.

60. *CYPSELUS PEKINENSIS*, Swinhoe, P. Z. S. 1870, p. 435.

This pale representative of *C. apus*, L., comes to Peking in large numbers in April (*David*) to breed, and leaves early in August. A bird from the Himalayas, brought home by Dr. Jerdon, agrees with my specimens; and it is probably this species, and not the true *C. apus*, which is found in India in winter.

61. *CYPSELUS PACIFICUS*, Lath. Ind. Orn. Suppl. p. 58; Ibis, 1870, p. 89.

*Cypselus vittatus*, Jard. Ill. Orn. ser. 2. pl. 39; Ibis, 1860, pp. 48, 429, 1861, pp. 254, 328, 1863, p. 253, 1865, p. 356; P. Z. S. 1863, p. 263.

Hainan to Peking, and in Formosa.

62. *CYPSELUS SUBFURCATUS*, Blyth; Ibis, 1863, p. 254, 1865, p. 355, 1866, p. 131, 1867, p. 227, 1870, p. 89; P. Z. S. 1863, p. 264.

*Cypselus affinis*, Ibis, 1860, p. 48, 1861, p. 30.

Hainan to Amoy, and in Formosa.

63. *CYPSELUS INFUMATUS*, Scater, P. Z. S. 1865, p. 602.

*Cypselus tinus*, Swinh. Ibis, 1870, p. 90.

*Cypselus tectorum*, Jerdon.

Hainan. I have compared my specimens with Dr. Jerdon's type from Upper Assam, and with Dr. Scater's type from Borneo in Mr. Wallace's collection, and find them all to be of the same species.

64. *CHÆTURA CAUDACUTA* (Lath.).

*Hirundo ciris*, Pall. Zoograph. Rosso-Asiat.

*Acanthylis caudacuta* (Lath.), P. Z. S. 1863, p. 263.

*Chætura nudipes*, Hodgs.; Ibis, 1860, p. 48.

Amoy. Common on the Peking mountains (*David*).

65. ? *CHÆTURA GIGANTEA*, V. Hass.; Pl. Col. 364.

*Acanthylis caudacuta*, Ibis, 1870, p. 90.

It is probably this species that makes the edible nests in the caves



of the islands off the south of Hainan, and not the preceding species, as I had at first supposed.

66. *HIRUNDO GUTTURALIS*, Scop. ; Ibis, 1860, pp. 48, 429, 1861, p. 30, 1863, p. 255, 1870, p. 240 ; P. Z. S. 1863, p. 287.

*Hirundo rustica*, Ibis, 1861, p. 254, 328, 1863, p. 89, 1867, p. 411.

*Hirundo panayana*, Gmel. Syst. Nat. 1788, i. p. 1018.

Throughout China and Formosa in summer. Like *H. rustica*, but much smaller and with broader bill.

67. *CECROPIS STRIOLATA* (Temm. & Schleg.).

*Hirundo daurica*, Ibis, 1860, p. 48, 1863, p. 255.

The striped-belly Swallows that abound in summer in Formosa and breed there belong to the species of this group found in the islands of the Indian archipelago. My specimens agree with one collected by Mr. Wallace at Flores. Seven specimens of this form show no signs of a white spot on the inner web of the outer rectrix.

68. *CECROPIS JAPONICA* (Temm. & Schleg.).

*Hirundo daurica*, Ibis, 1860, p. 48 ; P. Z. S. 1863, p. 187.

I believe my Amoy specimens to belong to this species, though I have not been able to compare them with skins from Japan. *Hirundo erythropygia*, Sykes, of India (Gould, B. of As. pl.) is easily distinguished from this by its *deep* rufous *unstreaked* rump, and by the faint narrow streaks of its underparts. An occasional specimen of our bird shows a faint white spot on the inner web of the outer rectrix.

69. *CECROPIS ARCTIVITTA*, n. sp.

*Hirundo daurica*, Ibis, 1861, p. 328, 1863, p. 89 ; P. Z. S. 1863, p. 287.

The striped Swallow that comes to Pekin to breed is of about the size of the Amoy species, but more faintly and narrowly striped on the underparts, and is easily distinguishable from that and all other species of this group that I have seen by the extreme narrowness of the rufous band across its rump. (Depth of band in *C. japonica* 1·2, in this bird ·7). I was formerly under the impression that the Pekin bird was the true *H. daurica*, L. (*H. alpestris*, Pall.) ; but I have now no doubt that both Linnæus and Pallas applied their names to *H. rufula*, Temm. (Gould, B. of As. pl.). The Himalayan species, *H. nipalensis*, Hodgs. (*H. daurica*, Gould, B. of As. pl.), has the rump-band nearly as narrow as in ours, but its broad rufous nuchal collar prevents its being confounded with ours. The white spot on the external rectrix is also occasionally seen in the Pekin birds.

70. *COTYLE RIPARIA* (L.) ; Ibis, 1861, p. 328, 1863, p. 89 ; P. Z. S. 1863, p. 287.

Pekin in summer.



71. *COTYLE SINENSIS* (J. E. Gray); Swinh. Ibis, 1863, p. 257, 1866, p. 134; P. Z. S. 1863, p. 288.

South China and Formosa.

72. *PTYONOPROGNE RUPESTRIS*.

*Cotyle rupestris* (Scop.); P. Z. S. 1870, p. 445.

Common in the mountains about Peking. Père David says that in winter many are found together in caverns in a torpid state, and that these on mild days recover from their sleep and fly about over the rocks in the open.

73. *CHELIDON LAGOPODA* (Pall.); Ibis, 1863, p. 91; P. Z. S. 1863, p. 287.

*Chelidon whiteleyi*, Swinh. P. Z. S. 1862, p. 320.

Seen in summer about the hills of Peking and of Ichang, up the Yangtze. Very scarce. Père David found it nesting in the rocks of San Yu. It avoids the neighbourhood of houses.

74. *EURYSTOMUS ORIENTALIS* (L.); Ibis, 1860, p. 48, 1861, p. 31, 1866, p. 129; P. Z. S. 1863, p. 269.

Canton; Foochow. A summer visitant. Does not quite agree with specimens from India, nor yet with those from Java and Lombok.

75. *HALCYON SMYRNENSIS* (L.); Gould, B. of As. pl.; Ibis, 1860, p. 48, 1861, p. 31, 1868, p. 59, 1870, p. 93; P. Z. S. 1863, p. 269.

Shanghai to Hainan.

76. *HALCYON PILEATUS*, Bodd. Pl. En. 673; Ibis, 1860, p. 49, 1870, p. 93.

*Halcyon atricapilla*, P. Z. S. 1863, p. 269.

Hainan to Peking.

77. *HALCYON COROMANDELIANA*, Scop. Ibis, 1863, p. 259.

*Halcyon coromanda*, Ibis, 1866, p. 138.

Formosa.

78. *ALCEDO BENGALENSIS*, Gm.; Swinh. Ibis, 1860, p. 49, 1861, pp. 31, 328, 1863, p. 260, 1867, p. 408, 1870, p. 92; P. Z. S. 1863, p. 269.

Hainan to Peking, and in Formosa. The bird in Formosa is usually to be distinguished from the continental race by a blue spot on each side of the breast near the bend of the wing; but this peculiarity occurs also occasionally in birds on the main.

79. *CERYLE RUDIS* (L.); Ibis, 1860, p. 49, 1861, p. 31, 1867, p. 408, 1870, p. 92; P. Z. S. 1863, p. 269.

Hainan to Wanchow, and upper waters of the Yangtze. Chinese specimens rarely have white spots on the black band of the tail.



## 80. CERYLE LUGUBRIS, Temm. Pl. Col. 548.

A bird shot at Ningpo and described to me by a friend answers to this species.

## 81. MEROPS DAUDINI, Cuv. ; G. R. Gray's Hand-list of Birds.

*Merops philippensis*, Ibis, 1865, pp. 230, 348, 1870, p. 91.

*Merops philippinus*, Ibis, 1866, p. 129.

Procured at Swatow. For the edification of our Indian friends it is well to state here that the so-called *M. quinticolor* from India is not the same as the Javan bird. The former differs from the latter in having the under neck blotched with chestnut, and the tail green instead of blue. The Indian species should stand as *M. erythrocephalus*, Brisson, Av. iv. p. 563.

## 82. UPUPA EPOPS, L. ; Zool. 1858, p. 6229 ; Ibis, 1860, p. 49, 1861, pp. 254, 328, 1867, p. 236 ; P. Z. S. 1863, p. 264.

From Canton to Peking. I described in the 'Zoologist' for 1858, and in the P. Z. S. for 1863, the peculiar way in which the Hoopoe produces its notes, by puffing out the sides of its neck and hammering on the ground at the production of each note, thereby exhausting the air at the end of the series of three which make up its song. Before it repeats its call it repeats the puffing of the neck, with a slight gurgling noise. When it is able to strike its bill the sound is the correct "hoo-hoo-hoo;" but when perched on a rope and only jerking out the song with nods of the head, the notes more resemble the syllables "hoh-hoh-hoh." Mr. Darwin makes use of this last fact to show that some birds have instrumental means to produce their music (Descent of Man, ii. p. 62). It is not to this point, however, that I wish at present to call attention; but to the fact of the bird's puffing out the sides of its neck. It is generally supposed that the song of a bird is produced by actions of the lower larynx on air passing up the bronchial tubes, onwards and outwards through the main tube or trachea. The trachea of the Hoopoe is not dilatable; but its œsophagus is; and the puffing of its neck is caused by the bulging of its œsophagus with swallowed air. There is no connexion between the œsophagus and the trachea, and apparently no organ at the entrance to the former that could modify sound; what action, then, can this swallowed air be made to take in the production of the bird's notes? Pigeons have strikingly large air-crops, which they empty with each long coo, and refill before they coo again. Many birds swell out the throat when calling or singing, and others move it up and down; these actions must also be caused by the swallowed air in the œsophagus, and must modify the sounds in some way as variously used, adding power and richness in some cases, or giving ventriloquistic effect in others. This question seems never to have been inquired into before; and I throw out the hint in hopes that others may help to elucidate the matter with their investigations. As regards Pigeons, Mr. W. B. Tegetmeier suggests "that the dilated œsophagus and crop serve as a chamber of resonance, the air in



which, being thrown into vibration, may be expelled to produce a louder sound."

83. *UPUPA CEYLONENSIS*, Reichenbach; Blyth, Ibis, 1866, p. 366, 1870, p. 91.

*Upupa longirostris*, Jerdon, Birds of India, i. p. 393.

Hainan. Also from Java and Ceylon (*Cabanis*); Siam and Burmah. My skins from Hainan agree perfectly with a specimen from Burmah sent me by Mr. Blyth.

84. *ÆTHOPYGA CHRISTINÆ*, Swinh. Ann. & Mag. Nat. Hist. 4th ser. vol. iv. p. 436; Ibis, 1870, p. 236.

Hainan.

85. *ÆTHOPYGA ABRII*, J. Verr. Rev. et Mag. de Zool. 1867, p. 173, pl. 15.

Western Szechuen (*David*); Western Yunnan (*Anderson*).

86. *ARACHNECHTHRA RHIZOPHORÆ*, Swinh. Ann. & Mag. Nat. Hist. 4th ser. vol. iv. p. 436; Ibis, 1870, p. 237.

Hainan. To distinguish this from its ally *A. flammixillaris*, Blyth, I gave the character of its frontal feathers being iridescent like its throat. M. Jules Verreaux, however, has a specimen from Penang with the forehead showing a few feathers of the same mark. A more constant distinguishing character would appear to be the paleness and dinginess of the yellow of the belly and underparts in our bird as contrasted with the bright yellow of the same in its ally.

87. *DICÆUM CRUENTATUM*, L.; Ibis, 1867, p. 405, 1868, p. 63, 1870, p. 239.

Fokien; Hongkong; Hainan.

88. *DICÆUM MINULLUM*, Swinh. Ibis, 1870, p. 240.

Hainan.

89. *MYZANTHE IGNIPECTUS*, Hodgs.

Tingchow (Fokien Province). I would here note that a specimen of *Piprisoma agile*, Tickell, from India, collected by Mr. Beavan, seems to me undistinguishable from another of *Prionochilus obsoletus* (Müll. & Schleg.) from Flores, collected by Mr. Wallace.

90. *ZOSTEROPS SIMPLEX*, Swinh. P. Z. S. 1862, p. 317, 1863, pp. 203, 297; Ibis, 1863, p. 294, 1866, p. 121, 1870, p. 348.

*Zosterops*, sp., Zool. 1858, p. 6229.

*Zosterops japonicus*, Ibis, 1860, pp. 55 & 131, 1861, p. 35.

Hainan to Wanchow, and in Formosa.



91. *ZOSTEROPS ERYTHROPLEURA*, Swinh. P. Z. S. 1863, pp. 204, 298, 1870, p. 448.

*Zosterops japonicus*, Ibis, 1861, p. 331; P. Z. S. 1862, p. 317. Shanghai to Pekin.

92. *ZOSTEROPS SUBROSEUS*, Swinh. P. Z. S. 1870, p. 132.

Hankow.

93. *SITTA VILLOSA*, Jules Verreaux, Nouv. Arch. du Muséum, tome i., Bull. p. 78, pl. 4; P. Z. S. 1870, pp. 436, 438.

*Sitta pekinensis*, David, Cat. des ois. à Pékin; Swinh. P. Z. S. 1870, p. 438.

Pekin. Allied to *S. canadensis*, L., of North America.

94. *SITTA AMURENSIS*, n. sp.

The Nuthatch from Amoorland, instead of being white-bellied like that from Trans-Baikal and Northern Japan, is rufous underneath, approaching in that respect *S. caesia* of England and Western Europe. It differs from that species, however, in its shorter bill and tarse, and more slender legs and toes. It has a distinct white eyebrow, its under neck and breast are pure white, and its belly and flanks buff; its under tail-coverts deep cinnamon, spotted with white. It otherwise agrees with *S. caesia*, and is of about the same size. It ranges down to Pekin in winter.

95. *SITTA SINENSIS*, J. Verr. MS.; Ibis, 1865, p. 107.

I observed a small Nuthatch near Ningpo, but did not succeed in securing it. Père David sent to Paris a single specimen of the same from Kinkiang, which will be described by M. J. Verreaux in due course. A larger form of the same type has been sent by Père David from the Moupin Mountains.

96. *CERTHIA FAMILIARIS*, L.; P. Z. S. 1863, p. 270.

*Certhia fasciata*, David, Cat. des ois. à Pékin.

A rare visitant to Pekin in winter (*David*). I have a specimen from Pekin from Père David, and another from Amoorland from V. Schrenck, which do not appear separable from the home species.

97. *CERTHIA HIMALAYANA*, Vig.

Received at the Paris Museum through Père David from the Moupin Mountains (N.W. Szechuen).

98. *TICHODROMA MURARIA*, L.; P. Z. S. 1863, p. 270.

Foochow; Pekin (*David*).

99. *PNOEPYGA SQUAMATA* (Gould).

Sent to the Paris Museum from the Moupin Mountains by Père David.



100. *TROGLODYTES FUMIGATUS*, Temm. Man. d'Ornithol. iii. p. 161.

Pekin (*David*).

101. *ORTHOTOMUS LONGICAUDA* (Gm.); Swinh. Zool. 1858, p. 6229.

*Motacilla longicauda*, Gmel. Syst. Nat. 1788, i. p. 954.

*Orthotomus phyllorrhapheus*, Swinh. Ibis, 1860, p. 49, 1861, p. 32, 1862, p. 258; P. Z. S. 1863, p. 294.

South China. Gmelin's name applies specially to the China bird, so that its Indian ally will have to take the next in priority of its numerous synonyms.

102. *PRINIA SONITANS*, Swinh.; Zool. 1858, p. 6229; Ibis, 1860, p. 50, 1861, p. 32, 1863, p. 302, 1870, p. 345; P. Z. S. 1863, p. 294.

South China; Hainan; Formosa.

103. *HOREITES ROBUSTIPES*, Swinh. Ibis, 1866, p. 398.

Formosa. Like *Horornis assimilis*, Hodgs., from Nepal, but with shorter wings, much shorter tail, and longer and stronger hind claw.

104. *HOREITES BRUNNEIFRONS*, Hodgs.

Specimens forwarded by Père David from the Moupin Mountains have been thus identified by M. J. Verreaux.

105. *DRYMÆPUS EXTENSICAUDA*, Swinh. Ibis, 1860, p. 50, 1861, p. 32, 1863, p. 299, 1865, p. 544, 1870, p. 345; P. Z. S. 1863, p. 294.

*Drymæpus flavirostris*, Swinh. Ibis, 1863, p. 300 (young bird, individual variety).

Throughout Southern China westwards to Szechuen, in Hainan, and in Formosa. It autumn it acquires a light bill and a very long tail, the whole of its plumage being often suffused with a strong tinge of ochreous. It then much resembles *D. longicauda*, Tickell, of India. In spring the bill turns black, and the long tail is exchanged for a much shorter one, when it approaches the *D. inornata*, Sykes, of India.

106. *SUYA STRIATA*, Swinh. Ibis, 1862, p. 304, 1863, p. 301.

*Prinia striata*, Swinh. Journ. North China Asiat. Soc. May 1859; Ibis, 1860, pp. 186, 360.

North-west Formosa; Szechuen. Varies much in size.

107. *SUYA SUPERCILIARIS*, Anderson, P. Z. S. 1871, anteà, p. 212.

Procured by Dr. Anderson at Momien (Yunnan Province).



108. *RHOPOPHILUS PEKINENSIS*, Swinh. Ibis, 1868, p. 62 ; P. Z. S. 1870, pp. 436, 443.

*Garrulax* no. 175, David's Catalogue.  
Pekin.

109. *CISTICOLA SCHÆNICOLA*, Bp. ; Ibis, 1863, p. 303, 1870, p. 345 ; P. Z. S. 1863, p. 295.

*Cisticola tintinnabulans*, Swinh. Ibis, 1860, pp. 51, 131.

*Calamanthella tintinnabulans*, Swinh. Journ. North China Asiatic Society, vol. ii. May 1859 ; Ibis, 1860, pp. 186, 360, 1861, p. 32.

*Cisticola cursitans*, Ibis, 1861, p. 329.

Throughout China, Hainan, and Formosa.

110. *CISTICOLA VOLITANS*, Swinh. North China Asiat. Soc. May, 1859 ; Ibis, 1860, pp. 186, 360, 1863, p. 304.

North Formosa.

111. *CISTICOLA MELANOCEPHALA*, Anderson, P. Z. S. 1871, p. 212.

Procured by Dr. Anderson at Sonda (Yunnan).

112. *CALAMODYTA ORIENTALIS* (Temm. et Schleg.).

*Calamoherpe orientalis*, Swinh. Ibis, 1863, p. 305 ; P. Z. S. 1863, p. 293, 1870, p. 427.

*Acrocephalus magnirostris*, Swinhoe, Ibis, 1860, p. 51, 1861, pp. 32, 329.

Canton to Shanghai in summer. Père David notes that it passes Pekin in autumn. Mr. Wallace procured the species in Batchian, Morty, and Lomboek.

113. *CALAMODYTA FASCIOLATUS* (G. R. Gr.).

*Acrocephalus fasciolatus*, G. R. Gray, P. Z. S. 1860, p. 349.

*Calamoherpe subflavescens*, Elliot, P. Z. S. 1870, p. 243.

M. J. Verreaux received a specimen of this bird from the Lake-Baikal region ; and as it was impossible to suppose that it could be referred to a Moluccan species, and there was nothing else like it, Mr. D. G. Elliot described it as a new species. Lord Walden first pointed out its identity with the Batchian species. In passing to and from its summer quarters it must go through China ; and so I introduce it into the China List, though it has not actually been obtained in China.

114. *CALAMODYTA INSULARIS*.

*Acrocephalus insularis*, Wallace, Ibis, 1862, p. 350.

*Calamoherpe fumigata*, Swinhoe, P. Z. S. 1863, pp. 91, 293.

The close affinity of this bird to the last led me to compare it with the second Moluccan species, and I was delighted to find it the same. It comes to Amoy in May in large numbers, and disappears again almost immediately, probably into the interior of China or



beyond. Mr. Wallace says he got *C. fasciolatus* in Batchian, Gilolo, and Morty, and *C. insularis* in Gilolo and Morty, that they occurred sparingly, and that it always struck him that they were out of place, for, with the exception of *C. orientalis*, there was nothing like them to the east or west.

115. CALAMODYTA BISTRIGICEPS, Swinh. P. Z. S. 1863, p. 293.

*Acrocephalus bistrigiceps*, Swinh. Ibis, 1860, p. 51.

*Locustella* (à sourcils noirs), David, Catalogue.

*Lusiniopsis*, sp., Swinh. Ibis, 1861, p. 412.

Amoy; Pekin. Allied to *C. agricola*, Jerd., of India, but with a black line on each side of its crown.

116. ARUNDINAX AËDON, Pall.

*Arundinax olivaceus*, Blyth, P. Z. S. 1862, p. 316.

*Turdus aëdon*, Pall. Zoogr. t. i. p. 459; P. Z. S. 1863, p. 294, 1870, p. 432; Ibis, 1863, p. 91.

Tientsin and Pekin in summer. "Comes to nidificate in our (Pekin) marshes, and leaves again in September" (David).

HERBIVOX, n. gen.

Bill moderate, with long lunate aperture to nostril; legs and feet large and strong, with powerful hind toe and claw; wing rounded, with the first four quills graduated, the fourth being the longest; tail moderately graduate. A bush-loving form of *Calamohërpe*. I propose this genus for the three following birds, including *Salicaria cantillans*, T. & S., of Japan, as they have the above characters in common, and do not range happily in any genus hitherto suggested. My *Arundinax flemingi* is of similar form with the above, but has a square tail; this I would place in the subgenus *Herbivocula*.

117. HERBIVOX CANTANS.

*Salicaria cantans*, T. & S. Faun. Jap. t. 19; Ibis, 1866, p. 397.

Procured from the interior of Formosa; not known from China.

118. HERBIVOX CANTURIENS.

*Arundinax canturiens*, Swinh. Ibis, 1860, p. 52, et pp. 131, 357.

*Lusiniopsis canturiens*, Swinh. Ibis, 1861, pp. 32, 328.

*Calamohërpe canturiens*, Ibis, 1863, p. 306, 1867, p. 408, 1870, p. 345; P. Z. S. 1863, p. 294.

Hainan to Shanghai, and in Formosa.

119. HERBIVOX MINUTA.

*Arundinax minutus*, Swinh. Ibis, 1860, p. 52.

*Arundinax miniatus*, Swinh. Ibis, 1860, p. 357.

*Calamohërpe minuta*, Ibis, 1863, p. 306, 1870, p. 345; P. Z. S. 1863, p. 294.

Amoy; Hainan; Formosa.



## 120. HERBIVOCULA FLEMINGI.

*Arundinax flemingi*, Swinh. P. Z. S. 1870, p. 440.

*Salicaria cantillans*, P. Z. S. 1862, p. 316, 1863, p. 294.

Tientsin (*Fleming*), Pekin (*David*). I saw two sizes of this in the Paris Museum from Pekin, but I scarcely think they are separable. There was only one specimen of each to judge from. A specimen has been received from Trans-Baikal.

121. CALAMOHERPE CONCINENS, Swinh. P. Z. S. 1870, p. 432.  
Pekin.

## 122. CALAMODUS SORGHOPHILUS.

*Calamodyta sorghophila*, Swinh. P. Z. S. 1863, pp. 92, 293.  
Amoy.

123. DUMETICOLA AFFINIS, Hodgs. Cat. Specim. Brit. Mus. Mamm. & Birds, App. p. 151.

*Dumeticola thoracica*, Blyth, J. A. S. xiv. p. 584.

Received at the Paris Museum through Père David from the Moupin Mountains. Has also been sent from Lake Baikal.

124. LOCUSTELLA HENDERSONII, Cass. Proc. Phil. Acad. Sciences, 1858, p. 194 ; P. Z. S. 1863, p. 293.

*Locustella rubescens*?, Ibis, 1860, p. 358, 1861, pp. 32, 328.

*Locustella macropus*, Swinh. P. Z. S. 1863, p. 93.

China generally.

## 125. LOCUSTELLA CERTHIOLA, Pall.

*Motacilla certhiola*, Pall. Zoogr. p. 509.

Pekin. The Paris Museum has specimens sent by Père David ; and I have a head, also sent by him from Pekin. Trans-Baikal (*Tacsanowsky*).

126. LOCUSTELLA RUBESCENS, Blyth, J. A. S. xiv. p. 582.

*Locustella ochotensis*, Midd. Sib. Reise, t. 16, 17, 18 ; Ibis, 1863, p. 91 ; P. Z. S. 1863, p. 293.

Amoy. Received from Trans-Baikal. Found near Calcutta in winter (*Blyth*). Indian specimens have the throat and belly white, and have no yellow on the underparts, and represent the bird in the winter dress. A Baikal specimen in breeding-plumage is yellowish beneath with black spots on the breast. A specimen shot in September at Amoy is intermediate.

127. LOCUSTELLA LANCEOLATA, Temm. Man. d'Ornith. iv. p. 614.

*Locustella minuta*, Swinh. P. Z. S. 1863, pp. 93, 293 ; Ibis, 1866, p. 293.

*Locustella* allied to *L. raii*, Swinh. Ibis, 1861, p. 412.



Amoy ; Canton ; Pekin (*David*) ; Lake Baikal (*Tacsanowsky*). Has been shot in Europe.

I have lately received from Trans-Baikal a bird of this group, which I at first thought might be *Calamoderpe maackii*, of V. Schrenck ; but it seems to be a novel form, and I would propose to designate it

LOCUSTELLA TACSANOWSKIA, n. sp.

Bill black, bright yellow on the basal half of the lower mandible. Legs and toes yellowish flesh-colour. Upper parts olive-brown ; wing- and tail-feathers hair-brown, broadly margined with olive-brown. Underparts and slight superciliary streak yellowish, with the breast, flanks, and tibiae washed with olive-brown. Length 5 inches ; wing 2.2 ; tail 1.9, much graduated, outer rectrix  $1\frac{1}{2}$  shortest. First primary of wing broad, .6 long, second  $\frac{1}{2}$  inch shorter than third, which is slightly shorter than the fourth.

The nearest in form to this bird is the *Locustella ochotensis*, from which, however, it can readily be distinguished by its smaller size, short and blunt bill, unspotted upper parts, and light untipped tail.

The Curator of the Museum at Warsaw, M. Tacsanowski, sent this bird to M. Jules Verreaux, labelled *Dumeticola thoracica*, juvenis. It is likely to occur as a winter visitant in China ; but as it has not been yet found in that country, I do not number it in my list.

128. TRIBURA LUTEIVENTRIS, Horsf. P. Z. S. 1845, p. 30.

*Calamodyta affinis*, Gray & Mitch. G. of B. pl. 49.

Sent to the Paris Museum by Père David from Moupin.

129. TRIBURA SQUAMICEPS, Swinhoe, P. Z. S. 1863, p. 292 ; Ibis, 1866, p. 397.

Canton ; Formosa.

130. SYLVIA CURRUCA, Linn. Fn. Suec. 247.

*Curruca garrula*, Bris. Av. iii. p. 384. n. 7.

Very rare at Pekin, but common at Ordo (*David*). Mr. Gould has a specimen from Kalgan.

131. PHILACANTHA NISORIA (Bechst.).

*Nisoria undata*, P. Z. S. 1870, p. 430.

Pekin (*David*).

132. OREOPNEUSTE DAVIDII.

*Abornis davidii*, Milne-Edwards, Nouv. Arch. d. Mus. 1864, t. i. pl. 2. fig. 1.

In structure this species is neither an *Abornis* nor a true *Phyllopneuste*, and may with propriety be ranked in a separate genus in company with *P. agricolensis*, Hume, of India. In coloration it resembles my *Araudinax flemingi*, and might at the first glance be



mistaken for that bird. It is thus described by Milne-Edwards:—"Above of an olive-brown tint; a greyish-white eye-streak stretches from the base of the beak to the nape, and then curves towards the similar streak on the other side. Throat greyish white; breast and belly tinted on their sides with clear brown, greyish white washed with yellow towards their middle. Tarse yellowish."

Nests in the high mountains near Pekin (*David*).

133. *PHYLLOPNEUSTE FUSCATA* (Blyth); Swinh. Ibis, 1863, p. 306, 1870, p. 345; P. Z. S. 1863, p. 295.

*Phylloscopus fuscatus*, Blyth, J. A. S. xi. p. 113, xii. p. 965; Ibis, 1861, pp. 32, 330, 1863, p. 93.

*Phyllopneuste sibirica*, Midd. Sib. Reise, ii. tab. 16. figs. 4-6.

As in the case of *P. sylvicultrix*, there is certainly much variability in the size and measurements of these brown Willow-Wrens; but I have not yet succeeded in discriminating them as species (*cf.* Tristram, 'Ibis,' 1871, p. 110). I have not been able to detect any differences in the notes and habits of those I have come across. The spotted eggs taken in Formosa, alluded to by Mr. Tristram, cannot, I fear, be trusted to, their authenticity depending on the statement of a Chinaman.

134. *PHYLLOPNEUSTE TENELLIPES* (Swinh.); P. Z. S. 1863, p. 295.

*Phylloscopus tenellipes*, Swinh. Ibis, 1860, p. 53.

Amoy; Pekin (*David*).

135. *PHYLLOPNEUSTE CORONATA* (Temm. & Schleg.); Ibis, 1863, p. 307; P. Z. S. 1863, p. 297.

*Phylloscopus coronatus*, Ibis, 1860, p. 54, 1861, p. 330, 1863, p. 93; P. Z. S. 1862, p. 317.

Amoy; Pekin (*David*).

136. *PHYLLOPNEUSTE XANTHODRYAS*, Swinh. P. Z. S. 1863, p. 296.

Amoy.

137. *PHYLLOPNEUSTE PLUMBEITARSUS*, Swinh. Ibis, 1870, p. 345; P. Z. S. 1863, p. 296.

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

A small species with short thick bill and small feet; lesser and greater wing-coverts both tipped with yellow, forming a double bar across the wing; primary quill .6 in. long, second one-third of an inch shorter than the third.

Pekin; Hainan.

138. *PHYLLOPNEUSTE BOREALIS*, Blasius, Naumannia, 1858, p. 313; Ibis, 1862, p. 68.

*Phylloscopus sylvicultrix*, Swinh. Ibis, 1860, p. 53, 1866, pp. 135, 295, 394.



*Phyllopneuste sylvicultrix*, Ibis, 1863, p. 307; P. Z. S. 1863, p. 295.

*Phyllopneuste javanica*, Bp. (*nec* Horsf. quæ *Zosterops*), Consp. Av. i. p. 290.

*Sylvia (Phyllopneuste) eversmanni*, Midd. (*nec* Bonap.) Sib. Reise, Vög. p. 178, t. 16. f. 1-3.

*Sylvia flavesces*, G. R. Gray, P. Z. S. 1860, p. 349.

*Phyllopneuste kennicotti*, Baird, Trans. Chicago Acad. Sci. 1869, i. p. 313, pl. 30. fig. 2.

This Willow-Wren passes through Amoy each spring and autumn in immense numbers; and I have a large series which vary in size and length of parts, but can barely be separated into large and small races, as intermediate sizes occur. I have seen our species from the Tenasserim province, and have two skins of the same from Flores, collected by Mr. Wallace, and marked *S. flavesces*, G. R. Gray. Dr. V. Schrenck has sent me the same from the Kurile Islands labelled *Sylvia eversmanni*; and we have received many from Trans-Baikal through Madame Verdey of Paris. Further, I have examined two specimens from North Russia, collected by M. Mèves, and kindly lent me by Messrs. Salvin and Godman, to whom they belong. These are marked *P. eversmanni*, and are also identical with our China bird. Dr. Hartlaub's *P. borealis* is founded on a specimen from the shores of the sea of Okhotsk; and on carefully reading his description of it, and comparing it with the so-called *P. javanica* (a Java specimen), I find no material difference between them, further than I can match from my series of specimens from China. Finally, Mr. Tristram insists that the type of *P. kennicotti*, Baird, from Alaska, which has been submitted to his inspection, is no other than our Chinese friend. This species thus shows itself to be a great wanderer, resorting in winter to the Malayan peninsula and archipelago, and seeking a summer home in the high latitudes of Asia, extending even to Russia (and apparently to Heligoland) on the European side, and to Alaska on the American side. During its migrations it occurs in Formosa; and I have seen it in the Leyden Museum from Japan.

139. *REGULOIDES PROREGULUS* (Pall.), Ibis, 1867, p. 408, 1870, p. 345; P. Z. S. 1863, p. 297.

*Motacilla proregulus*, Pall. Zoogr. i. p. 499.

*Reguloides chloronotus*, Ibis, 1860, p. 54, 1861, pp. 33, 330.  
China generally.

140. *REGULOIDES SUPERCILIOSUS*, Ibis, 1863, p. 307, 1866, p. 135, 1867, p. 408, 1870, p. 345; P. Z. S. 1863, p. 297.

*Motacilla superciliosa*, Gmel. Syst. Nat. 1788, i. p. 975.

*Reguloides proregulus*, Ibis, 1860, p. 54, 1861, pp. 32, 330, 1862, pp. 257, 258.

China generally; Formosa.

141. *ABRORNIS FULVIFACIES*, Swinhoe, P. Z. S. 1870, p. 132.

Szechuen province.



142. *CRYPTOLOPHA TEPHROCEPHALA*, Anderson, P. Z. S. 1871, p. 213.

A copy of *Cryptolopha* (olim *Culicipeta*) *burkii*, but with the green of the crown changed to grey. Procured at Bhamo (Burmah) by Dr. Anderson, and sent from Moupin to Paris by Père David.

143. *REGULUS JAPONICUS*, Bp. Consp. Av.; P. Z. S. 1870, p. 451. North China.

144. *REGULUS HIMALAYENSIS*, Blyth; Gould, B. of As. pt. xxi. Sent from Moupin by Père David to the Paris Museum.

145. *RUTICILLA AUROREA* (Pall.); Swinhoe, Ibis, 1860, p. 54, 1861, pp. 33, 329, 1862, p. 261, 1863, p. 299, 1870, p. 344; P. Z. S. 1863, p. 291, 1870, p. 438.

*Phœnicurus reevesii*, Gray, Zool. Misc. p. 1. Throughout China; Hainan; Formosa.

146. *RUTICILLA HODGSONII*, Moore, P. Z. S. 1854, pl. 58. Procured by Père David at Moupin.

147. *RUTICILLA RUFIVENTRIS* (Vieill.).

*Ænanthe rufiventris*, Vieill.

Ordo Mountains, N.W. of Pekin and Moupin (*David*).

148. *RUTICILLA FRONTALIS*, Vig.; Gould, Cent. pl. 26. Sent by Père David from Moupin; Pekin (*David*).

149. *RUTICILLA FULIGINOSA*, Vig. P. Z. S. 1831; Ibis, 1861, pp. 409, 410, 1863, p. 298, 1866, p. 399; P. Z. S. 1863, p. 291.

*Saxicola leucura* (?), Ibis, 1862, p. 257.

Mountain-torrents of Southern China and Formosa.

150. *CHÆMARRORNIS LEUCOCEPHALA*.

*Phœnicura leucocephala*, Vig. P. Z. S. 1830; Gould, C. B. pl. 26.

Ichang gorge of the Upper Yangtze. Sexes similar in colour; the male has a larger foot than the female.

151. *LARVIVORA CYANE* (Pall.), Ibis, 1866, p. 315.

*Motacilla cyane*, Pall. Itin. iii. Append. 3, i. p. 472.

*Larvivora gracilis*, Swinh. Ibis, 1861, pp. 262, 409, 1863, p. 92; P. Z. S. 1862, p. 316, 1863, p. 291.

*Larvivora cyanea*, Hodgs. (?); Ibis, 1860, p. 358. China generally.

152. *LARVIVORA SIBILANS*, Swinh. P. Z. S. 1863, p. 292.

*Larvivora* —?, Ibis, 1861, p. 34.

Macao.



## 153. NOTODELA MONTIUM.

*Myiomela montium*, Swinh. Ibis, 1864, p. 362, 1866, p. 392.

Formosa. Distinguishable from *M. leucura*, Hodgs., of the Himalayas by the underparts being coloured as the back, instead of being black.

154. IANTHIA CYANURA (Pall.), Ibis, 1861, p. 329, 1863, pp. 91, 298; P. Z. S. 1862, p. 316, 1863, p. 290.

*Motacilla cyanura*, Pall. Itin. ii. Append. p. 709.

*Lusciola cyanura*, Faun. Jap. t. 21; Ibis, 1860, p. 131.

*Nemura rufilata*, Swinh. (nec Hodgs.), Ibis, 1860, p. 54.

*Ianthia rufilata*, Ibis, 1862, pp. 261, 264.

Throughout China, and in Formosa.

155. TARSIGER CHRYSÆUS, Hodgs.; Jard. Contr. Orn. 1850, pl. 61.

Sent to the Paris Museum by Père David from Moupin.

156. TARSIGER SUPERCILIARIS, Hodgs.; Jard. Contr. Orn. 1849, pl. 29.

Sent to Paris with the last.

157. HODGSONIUS PHENICUROIDES, Hodgs. J. A. S. xvi. p. 136.

*Callene zonura*, J. Verr. Nouv. Arch. 1869, Bull. p. 35.

Received at Paris through Père David from Moupin.

158. ERITHACUS AKAHIGE (Temm.).

In the Museum at Pekin, collected by Père David.

159. COPSYPHUS SAULARIS (L.); Zool. 1858, p. 6228 (*Gryllivora*); Ibis, 1860, p. 54, 1867, p. 409, 1870, p. 343; P. Z. S. 1863, p. 291.

*Gracula saularis*, Gmel. Syst. Nat. 1788, i. p. 397.

Southern China westwards to Szechuen, and in Hainan.

160. KITTACINCLA MACRURA, var. MINOR, Swinh. Ibis, 1870, p. 344.

Hainan.

161. CYANECULA CÆRULECULA (Pall.); Ibis, 1863, p. 91; P. Z. S. 1863, p. 291.

*Cyanecula suecica*, Ibis, 1861, p. 329, 1867, p. 394; P. Z. S. 1862, p. 316.

China generally.

162. CALLIOPE CAMTSCHATKENSIS (Gm.); Ibis, 1861, pp. 329, 410, 1863, p. 299; P. Z. S. 1862, p. 316, 1863, 292.

China generally.



163. *GRANDALA CÆLICOLOR*, Hodgs. ; G. R. Gr. & M. Gen. of B. pl. 50.

Sent to Paris from Moupin by Père David.

164. *SAXICOLA LEUCOMELA*, Pall. Zoogr. t. 28.

Mountains west of Pekin (*David*).

165. *SAXICOLA ISABELLINA*, Rüpp. Atl. t. 34.

*Saxicola saltatrix*, Ménétriés.

Inhabits the high plains near Pekin, sings admirably, nests in the deserted holes of *Spermolegus mongolicus* (*David*).

166. *SAXICOLA CENANTHE*, L.

Central mountains of extreme Ordo (north-west of Pekin), where it breeds (*David*).

167. *PRATINCOLA INDICA*, Blyth, J. A. S. xvi. p. 129 ; Swinh. Ibis, 1860, p. 54, 1861, pp. 33, 329, 1863, p. 298, 1870, p. 344 ; P. Z. S. 1862, p. 317, 1863, p. 291.

China generally, Hainan, and Formosa. Distinguishable at all ages from *P. rubicola* by its black axillaries and unspotted uropygials. Chinese specimens are more rust-coloured on the upper parts, and especially on the rump, than Indian ones.

168. *PRATINCOLA FERREA*, Hodgs. Ibis, 1862, p. 258 ; P. Z. S. 1863, p. 291.

*Ruticilla*, sp. nov. ?, Ibis, 1861, p. 33.

South China.

169. *ACCENTOR ERYTHROPYGIUS*, Swinh. P. Z. S. 1870, p. 124, pl. 9, & p. 447.

*Accentor alpinus*, Midd. Sib. Reise, Vögel, p. 173.

Western Hills of Pekin in September. Middendorff met with young birds on the cliffs of the south shore of the Sea of Okhotsk in July. Young birds have also been received from the Trans-Baikal region.

170. *ACCENTOR NIPALENSIS*, Hodgs.

Sent by Père David from Moupin. Has also been received from the Trans-Baikal.

171. *ACCENTOR MULTISTRIATUS*, David, Ann. Mag. Nat. Hist. April 1871.

Procured by Père David at Moupin. Closely allied to *A. strophiatatus*, Hodgs., of the Himalayas.

172. *ACCENTOR IMMACULATUS*, Hodgs.

Sent by Père David from Moupin.



173. *ACCENTOR MONTANELLUS* (Pall.).*Accentor temminckii*, Brandt.

Comes to Peking with the great cold (*David*). Sent in summer plumage from the Trans-Baikal.

174. *ACCENTOR RUBIDUS*, Temm. & Schleg. F. J. t. 32.

Père David saw the head of a bird procured at Peking, which he identified with that of *A. modularis*, L.

175. *PARUS MINOR*, Temm. & Schleg. F. J. t. 33; Swinh. Zool. 1858, p. 6229; Ibis, 1860, p. 55 et p. 131, 1861, p. 332, 1862, p. 257; P. Z. S. 1870, p. 437.

Amoy to Peking, and westwards to Szechuen.

176. *PARUS CÆSIUS*, Tickell.*Parus cinereus*, Ibis, 1870, p. 348.

Hainan. Our specimens agree with those from India. The Java bird, *P. cinereus*, Vieill. (*P. atriceps*, Horsf.), can be readily distinguished by the black of the head extending beyond the white nuchal spot, and separating it from the grey of the back.

177. *PARUS COMMIXTUS*, Swinh. Ibis, 1868, p. 63.*Parus minor*, Ibis, 1861, p. 34; P. Z. S. 1863, p. 270.

Like *P. cæsius*, but with some of the green tint on the back that marks *P. minor*, in fact intermediate to the two species. Canton to Foochow.

178. *PARUS MONTICOLA*, Vig.; Gould, C. B. pl. 29.

Sent by Père David from Moupin to the Paris Museum.

179. *PARUS INSUPERATUS*, Swinh. Ibis, 1866, p. 308.

South Formosa. A smaller race than the last, with the white on the tips of the tertiary quills confined to their tips, and not extending to their margins; barely separable.

180. *PARUS VENUSTULUS*, Swinhoe, P. Z. S. 1870, p. 133.

Ichang Gorge, on the Upper Yangtze.

181. *PARUS CASTANEIVENTRIS*, Gould, P. Z. S. 1862, p. 280; B. of As. pl.; Ibis, 1863, p. 295.

North Formosa.

182. *PARUS PEKINENSIS*, David; Ibis, 1870, p. 155.

Peking. Very like *Parus ater*, L., but with a few of the black coronal feathers lengthened and showing conspicuously over the white nuchal spot.



183. *PÆCILE KAMTSCHATKENSIS*, Bp.*Parus palustris*, Ibis, 1861, p. 331.*Parus kamtschatkensis*, P. Z. S. 1863, p. 270, 1870, p. 437.

Resident at Pekin (*David*). Among specimens of this species received from Trans-Baikal through M. Tacsanowsky is a very interesting form of Marsh-Tit, remarkable for its resemblance to the American *P. carolinensis*. This I have named *P. baicalensis* (Ann. & Mag. Nat. Hist. April 1871).

184. *PÆCILE CINCTA* (Bodd.).*Parus sibiricus*, Gm.

Woody mountains west of Pekin (*David*). From Moupin Père David has sent to Paris a handsome *Machlolophus*, which has not yet been described.

185. *ORITES GLAUCOGULARIS* (Gould).*Mecistura swinhoii*, v. Pelzeln, Reise v. d. Novara, t. 3.*Mecistura caudata*, P. Z. S. 1863, p. 270.*Parus trivirgatus*, Ibis, 1860, p. 131.

Ningpo to Pekin, and westwards to Ichang.

186. *ORITES OURATENSIS*, David, M. S.; Swinhoe, P. Z. S. 1870, p. 430.

A species of *Orites* with red eyelids was in the Pekin Museum, and has been sent to Paris. It was found by Père David in the mountains west of Pekin. It has not yet been described.

187. *ÆGITHALISCUS CONCINNUS*.*Ægithaliscus anophrys*, Swinh. Ibis, 1868, p. 64.*Psaltria concinna*, Gould, B. of Asia, pt. vii.

Fokien and Chekiang Provinces, and westward to Szechuen.

188. *ÆGITHALISCUS FULIGINOSUS*.

*Mecistura fuliginosa*, J. Verr. Nouvelles Arch. du Muséum, t. viii. Bulletin, p. 36.

"General colour dusky brown, forming a brown band on the breast; face and throat silvery grey; a half collar on the anterior part of the neck and middle of the abdomen, pure white on the first, and taking a rosy tint on the flanks; wings and tail brown, the latter white on the external barbs of the four lateral quills." (*J. Verreaux*.)

Sent by Père David from Moupin.

189. *ÆGITHALUS CONSOBRINUS*, Swinh. P. Z. S. 1870, p. 133.*Ægithalus pendulinus*, Radde, Reisen, Band ii. p. 195.

Procured at Sha-se, near Ichang (Hoopih). Radde found it breeding in Amoorland.

190. *SYLVIPARUS MODESTUS*, Burton, P. Z. S. 1835, p. 154.

Sent from Moupin by Père David.



191. *MOTACILLA ALBOIDES*, Hodgs., var. 1. *FELIX*.

*Motacilla luzoniensis*, Ibis, 1860, pp. 55, 429, 1861, p. 35, 1862, p. 259, 1863, p. 308; P. Z. S. 1863, p. 274.

*Motacilla felix*, Swinh. P. Z. S. 1870, p. 121, fig. 1.

Like the Indian black-backed *M. alboides* (*leucopsis*, Gould, *luzoniensis*, auct.), but with the pectoral black, in summer plumage, advancing higher, to within half an inch of the lower mandible. Southern China and Formosa.

Var. 2. *SECHUENENSIS*, Swinh. P. Z. S. 1870, p. 122, fig. 2.

The pectoral black in summer reaching to the lower mandible. Szechuen (W. China).

192. *MOTACILLA PARADOXA*, v. Schrenck, Amurland, Vög. p. 341, t. xi. fig. 2.

The pectoral black forming a large round patch on the breast. Mongolia. Forwarded to Paris by Père David.

193. *MOTACILLA HODGSONI*, G. R. Gray; Blyth, Ibis, 1865, p. 49.

*Motacilla francisci*, Swinh. P. Z. S. 1870, p. 123; Ibis, 1870, p. 345.

Like *M. personata*, Gould, of India, but with the back black instead of grey.

Hainan; Szechuen, extending to Nepal.

194. *MOTACILLA FRONTATA*, Swinh. P. Z. S. 1870, p. 129.

*Motacilla*, sp.?, Ibis, 1867, p. 390.

Amoy in winter.

195. *MOTACILLA BAICALENSIS*, n. sp.

*Motacilla dukhunensis* (?), P. Z. S. 1870, p. 130.

The representative in Eastern Asia of *M. alba*, L., of Europe; with clearer plumage, smaller bill, wing of a lighter brown, with much more white, especially on the wing-coverts. In full summer plumage the pectoral black contracts on the throat, and falls short of the chin. It has a very close ally in *M. dukhunensis*, Sykes, of India, but may be distinguished from that by its larger bill, greater amount of white on the wing-coverts; and in nuptial dress by the form of the pectoral patch. Occasional specimens from Trans-Baikal have a black line uniting the back of the eye with the black of the nape, but otherwise similar to the typical bird. This I would propose to distinguish as var. *temporalis*. It will probably be the bird procured in Lombardy in the collection of Count Turati of Milan (see Baron de Selys-Longchamps in Ibis, 1870, p. 451). Numerous skins of the Baikal Wagtail have been received through Madame Verdey of Paris; and it is doubtless the species observed by me on the Upper Yangtze (P. Z. S. 1870, p. 130).



196. *MOTACILLA OCULARIS*, Swinh. Ibis, 1863, pp. 94, 309; P. Z. S. 1863, pp. 275, 1870, p. 130, fig. 346.

*Motacilla lugubris*, Ibis, 1860, p. 55, 1861, pp. 35, 255, 333, 1862, p. 260; P. Z. S. 1862, p. 317.

Distinguishable in all plumages by the dark streak through its eye and its grey back.

China, Hainan, and Formosa. Specimens have also been received from Trans-Baikal.

197. *MOTACILLA JAPONICA*, Swinh. P. Z. S. 1863, pp. 17, 274, 1870, p. 130.

*Motacilla lugens*, Temm. (nec Illig.); Ibis, 1860, p. 357.

*Motacilla lugubris*, Ibis, 1862, p. 260, 1863, p. 308.

*Motacilla alba*, var. from Kamtschatka, Pall. Zoograph.

Distinguishable from the last in winter by its larger size, its whiter wing, and black-marked back. This is the species that announces the return of spring to the Kamtschatkans (*Kittlitz*). *M. lugubris*, Pall. & Temm. (*lugens*, Illiger), is the *M. vidua*, Sundevall, of Africa (see Tristram, 'Ibis,' 1866, p. 291).

198. *BUDYTES FLAVUS* (L.); Swinh. Ibis, 1860, p. 55, 1861, pp. 36, 333, 411, 1862, p. 260; P. Z. S. 1863, p. 274.

*Budytes flavescens*, G. R. Gray, P. Z. S. 1860, p. 350.

China generally. Mr. Wallace has bright-plumaged birds from the Moluccas which also agree with the European species; and Mr. Baird reports it from Alaska.

199. *BUDYTES TAIVANUS*, Swinh. Ibis, 1870, p. 346, 1866, p. 138.

*Budytes rayi*?, Ibis, 1862, p. 260, 1863, p. 309.

*Budytes melanotis*, Ibis, 1864, p. 422.

Amoy; Formosa; Hainan. I have a specimen also from Trans-Baikal; and Mr. Gould has one from Singapore.

200. *BUDYTES CINEREOCAPILLUS*, Sav.; Ibis, 1863, p. 94, 1870, p. 346; P. Z. S. 1862, p. 317.

Occurs singly or in pairs throughout China in spring.

201. *BUDYTES CITREOLUS* (Pall.).

Szechuen. I came across a party of this Wagtail on the Upper Yangtze in May.

202. *CALOBATES MELANOPE*.

*Motacilla melanope*, Pall. Itin. iii. p. 696. n. 16; Zoogr. i. p. 500.

*Motacilla bistrigata*, Raffles, Trans. Linn. Soc. xiii. part 2, p. 312.

*Motacilla boarula*, Ibis, 1860, p. 55, 1861, pp. 35, 333, 1862, p. 260, 1863, p. 309, 1866, p. 138; P. Z. S. 1862, p. 317, 1863, p. 274.

*Calobates boarula*, Ibis, 1870, p. 346.



China; Formosa; Hainan. Like *C. boarula*, but with a constantly shorter tail.

203. LIMONIDROMUS INDICUS (Gmel.) ; Gould, B. of As. pt. xiv. *Nemoricola indica*, Ibis, 1861, p. 333, 1863, p. 94 ; P. Z. S. 1862, p. 317, 1863, p. 276, 1870, p. 433.  
Pekin and Szechuen.

204. HENICURUS SINENSIS, Gould, P. Z. S. 1865, p. 665 ; Ibis, 1867, p. 404.

*Henicurus chinensis*, Gould, B. of As. pt. xviii.

*Henicurus leschenaultii*, P. Z. S. 1863, p. 276.

*Enicurus speciosus*, Ibis, 1861, p. 265, 1862, pp. 261, 264.

Fokien province.

205. HENICURUS LEUCOSCHISTUS, Swinh. Ann. & Mag. N. H. vol. vi. 4th series, p. 154.

*Enicurus schistaceus*, Ibis, 1861, pp. 409, 410 ; P. Z. S. 1863, p. 276.

Fokien ; Moupin (*David*). Like *H. schistaceus*, Hodgs., of Nepal, but wants the white tips that mark the first to the sixth primaries of the Indian bird, and its under wing instead of having the bases of the primary quills white, commencing from the second quill and increasing inwards, has the basal third of the quills edged on their inner webs with white, commencing from the fourth quill inclusive.

206. HENICURUS SCOULERI, Vig. ; Gould, B. of Asia, pt. xviii.  
Moupin (*David*).

207. ANTHUS SPINOLETTA, L.

*Anthus aquaticus*, Bechst.

*Anthus blakistoni*, Swinh. P. Z. S. 1863, pp. 90, 273 ; Ibis, 1867, p. 389.

Amoy ; river Yangtze. I have seen a specimen of the true *A. obscurus*, Gmel., from India.

208. ANTHUS CERVINUS, Pall. Zoograph. i. p. 511 ; Ibis, 1870, p. 347 ; P. Z. S. 1863, p. 273.

*Anthus thermophilus*, Ibis, 1860, pp. 55, 429, 1861, pp. 36, 411, 1863, p. 311.

*Anthus japonicus*, Ibis, 1861, p. 333.

Throughout China ; Hainan ; Formosa. It is a mistake to identify the European *A. ceciliæ*, Audouin (= *A. rufogularis*, Brehm), with our eastern *A. cervinus*. Ours is a smaller bird, with shorter wing, and in summer is easily distinguished by the rosy hue of its eyebrow and breast, which in the other are rust-colour, the breast being streaked with black. The streaks on the flanks, too, in the latter are much longer and broader.



209. *ANTHUS ROSACEUS*, Hodgs.

Sent from Moupin by Père David.

210. *PIPASTES AGILIS* (Sykes); Gould, B. of As. pt. xvii.; Ibis, 1870, p. 347.

*Anthus agilis*, Ibis, 1860, p. 55, 1861, pp. 36, 333, 1863, p. 310; P. Z. S. 1863, p. 273.

Throughout China; Hainan; Formosa.

211. *CORYDALLA GUSTAVI*.

*Anthus gustavi*, Swinh. P. Z. S. 1863, pp. 90, 273.

*Anthus batchianensis*, G. R. Gray, Hand-list, p. 251.

Comes to Amoy in spring in large numbers; but whither it goes I cannot tell. Mr. Wallace procured the same species in Batchian.

212. *CORYDALLA RICHARDI* (Vieill.), Pl. Col. 101; Ibis, 1870, p. 347.

*Anthus richardi*, Ibis, 1860, p. 55, 1861, pp. 36, 333, 1863, p. 311, 1865, p. 234; P. Z. S. 1862, p. 317, 1863, p. 272.

*Corydalla infuscata*, Blyth. (Race that breeds on the Fokien Hills.)

*Corydalla sinensis*, Ibis, 1861, p. 265.

Throughout China; Hainan. Rare in Formosa.

213. *CORYDALLA CHINENSIS*, Bp. Consp. Av. i. p. 525.

A smaller and more ochreous race than the last. Amoy in spring.

214. *TURDUS NAUMANNI*, Temm. Man. d'Orn. i. p. 170; Ibis, 1863, p. 277; P. Z. S. 1863, p. 280.

Shanghai to Pekin, and westwards to Szechuen.

215. *TURDUS FUSCATUS*, Pall. Zoogr. i. p. 451; Ibis, 1863, pp. 93, 277; P. Z. S. 1862, p. 317, 1863, p. 280.

Amoy to Pekin, and in Formosa; westwards to Szechuen.

216. *TURDUS MUSICUS*, L.

Foochow (*Gould*), Pekin (*David*). I have compared this bird, in company with Mr. Gould, with other specimens of the species. The Chinese bird does show some differences from home-shot examples, but a bird from Malta differs still more.

217. *TURDUS RUFICOLLIS*, Pall. It. iii. p. 694; Gmel. Syst. Nat. 1788, p. 815; P. Z. S. 1863, p. 281.

*Turdus* — ?, Ibis, 1861, p. 332.

Pekin; Moupin (*David*).

218. *TURDUS PALLIDUS*, Gmel. Syst. Nat. 1788, p. 815; Pl. Col. 515; Ibis, 1863, p. 276.

*Turdus daulias*, Temm. Faun. Japon. t. 26; Ibis, 1860, p. 56, 1861, p. 57, 1862, p. 261; P. Z. S. 1863, p. 280.



*Turdus advena*, Swinh. Ibis, 1860, pp. 56, 358.  
Amoy to Peking; Formosa.

219. *TURDUS CHRYSOLAUS*, Temm. Pl. Col. 537; Ibis, 1860, p. 56, 1863, p. 276, 1870, p. 248; P. Z. S. 1863, p. 280.

Hainan to Peking; Formosa.

220. *TURDUS OBSCURUS*, Gmel. Syst. Nat. 1788, p. 816; Ibis, 1863, p. 277.

*Turdus pallens*, Pall.; Ibis, 1860, p. 56, 1861, p. 37, 1863, p. 93; P. Z. S. 1862, p. 317, 1863, p. 280.

*Turdus rufulus*, Drap.

*Turdus modestus*, Eyton.

*Turdus pallidus*, Ibis, 1861, p. 332.

*Turdus davidianus*, Milne-Edwards, Nouv. Arch. i. Bull. p. 26.

Malacca to Peking, and westwards to Szechuen; Formosa. To be at once distinguished from the last by its conspicuous white eyebrow.

221. *TURDUS HORTULORUM*, Sclater, Ibis, 1863, p. 196; P. Z. S. 1863, p. 280.

*Turdus* —?, Ibis, 1861, p. 37.

South China.

222. *TURDUS ALBICEPS*, Swinh. Ibis, 1864, p. 363, 1866, p. 135, pl. 5, & p. 315.

Formosa.

223. *TURDUS CARDIS*, Temm. Pl. Col. 518; Ibis, 1860, p. 132, 1861, p. 37, 1870, p. 248; P. Z. S. 1863, p. 280.

South China in winter.

224. *TURDUS SIBIRICUS*, Pall. It. iii. p. 694; Syst. Nat. 1788, p. 815; Ibis, 1861, p. 410, 1863, p. 93; P. Z. S. 1862, p. 317, 1863, p. 279.

*Geocichla*, n. sp., Ibis, 1861, p. 37.

A winter straggler in China generally.

225. *MERULA SINENSIS* (Cuv.); G. R. Gray, Hand-list of B. i. p. 255; Zool. 1858, p. 6228.

*Turdus mandarinus*, Bp.; Ibis, 1860, p. 56, 1861, p. 38, 1870, p. 248; P. Z. S. 1863, p. 281.

Hainan to Shanghai, and westwards to Szechuen. A fine chestnut-coloured species, allied to *M. castanea* (Gould) of India, has been sent to Paris by Père David from Moupin.

226. *OREOCINCLA VARIA* (Pall.).

*Turdus varius*, Pall. Zoogr. i. p. 449.

*Oreocincla aurea*, Bp.; Ibis, 1860, p. 56; P. Z. S. 1863, p. 278.



*Oreocincla hancii*, Swinh. Ibis, 1863, p. 275, 1866, p. 304.

*Oreocincla whitei*, Ibis, 1861, p. 333.

China generally, and in Formosa.

227. *OREOCINCLA MOLLISSIMA*.

*Turdus mollissimus*, Blyth, J. A. S. xi. p. 185.

Sent by Père David from Moupin.

228. *MONTICOLA SAXATILIS*, L.

Summers on the Pekin Mountains (*David*).

229. *PETROPHILA GULARIS*.

*Oræcetes gularis*, Swinh. Ibis, 1863, p. 93, pl. 3; P. Z. S. 1862, p. 318, 1863, p. 282.

*Monticola* — ? , Ibis, 1861, p. 332.

Breeds on the Pekin Mountains (*David*).

230. *PETROCINCLA MANILLA* (Bodd.); Ibis, 1870, p. 248.

*Petrocincla violacea*, Swinh. Zool. 1858, p. 6228.

*Petrocincla manillensis*, Ibis, 1863, p. 274, 1866, p. 136, 1867, pp. 233, 404; P. Z. S. 1862, p. 317, 1863, p. 281.

*Petrocossyphus manillensis*, Ibis, 1860, pp. 56, 429, 1861, p. 38, 1862, p. 307, 1863, p. 93.

Hainan to Tientsin, and in Formosa.

231. *PETROCINCLA CYANEA* (L.).

Interior of China. Common in the gorges of the Upper Yangtze. Rare at Amoy and on the Chinese coast.

232. *PETROCINCLA AFFINIS*, Blyth, J. A. S. xii. p. 177.

Smaller than *P. manilla*, with the vent and belly more or less red; intermediate between *P. manilla* and *P. cyanea*. The common form on the South-China coast.

233. *MYIOPHONEUS CÆRULEUS* (Scop.); Ibis, 1861, p. 36, 1862, pp. 262, 264; P. Z. S. 1863, p. 277.

*Myiophoneus horsfieldii*, Vigors?; Ibis, 1860, p. 55.

*Turdus violaceus*, Gmel. Syst. Nat. 1788, p. 826.

*Turdus nitidus*, Gray, Zool. Misc. p. 1.

South China, westwards to Szechuen.

234. *MYIOPHONEUS INSULARIS*, Gould, P. Z. S. 1862, p. 180; B. of As. pl.; Ibis, 1863, p. 577.

Formosa.

235. *HYDROBATA PALLASI*, Temm. Man. d'Ornith. iii. p. 107.

*Cinclus pallasi*, Ibis, 1863, p. 272; P. Z. S. 1863, p. 277.



*H. marila*, Swinh. North China Asiat. Soc. Journ. May 1859 ; Ibis, 1860, pp. 187, 360.

Formosa, Ichang gorge of the Upper Yangtze.

236. *HYPSIPETES LEUCOCEPHALUS*.

*Turdus leucocephalus*, Gmel. Syst. Nat. 1788, p. 826.

*T. melaleucus*, Gray, Zool. Misc. p. 1.

*H. niveiceps*, Swinh. Ibis, 1864, p. 424, 1865, p. 107.

South China to Szechuen.

237. *HYPSIPETES NIGERRIMUS*, Gould, P. Z. S. 1862, p. 282 ; B. of As. pt. xvi. ; Ibis, 1863, p. 287.

Formosa.

238. *HYPSIPETES PERNIGER*, Swinh. Ibis, 1870, p. 251, pl. 9. fig. 2.

Hainan.

239. *HYPSIPETES YUNANENSIS*, Anderson, P. Z. S. 1871, *antea*, p. 213.

Procured by Dr. Anderson at Ponsee (Yunnan province).

240. *HYPSIPETES MACCLELLANDI*, Horsf. P. Z. S. 1839, p. 159.

*H. holsti*, Swinhoe, Ibis, 1861, pp. 266, 409 ; P. Z. S. 1863, p. 277.

Fokien province.

241. *HEMIXUS CASTANONOTUS*, Swinh. Ibis, 1870, p. 251, pl. 9. fig. 1.

Hainan.

242. *IXUS SINENSIS*, Ibis, 1863, p. 289 ; P. Z. S. 1863, p. 278.

*Muscicapa sinensis*, Gmel. Syst. Nat. 1788, i. p. 942.

*Pycnonotus sinensis*, Ibis, 1860, p. 57.

*P. occipitalis*, Ibis, 1861, p. 39.

Luichow to Shanghai, and westward to Szechuen, also in Formosa. Shanghai samples are larger, with the black of the crown somewhat obscuring the white of the occiput ; Szechuen specimens have the occiput very white, with a pale halter mark round the neck ; but both these varieties occasionally occur at Amoy.

243. *IXUS HAINANUS*, Swinh. Ibis, 1870, p. 253.

Like the last, but with the occiput, as well as the crown, black. Hainan.

244. *IXUS XANTHORRHUS*.

*Pycnonotus xanthorrhous*, Anderson, Proc. Asiat. Soc. Beng. 1869, p. 265.

PROC. ZOOL. SOC.—1871, No. XXIV.



*Ixus andersoni*, Swinh. Ann. & Mag. Nat. Hist. vol. v. 4th series, p. 175.

Ichang gorge of the Upper Yangtze. Obtained also by Dr. Anderson at Momien (province Yunnan), and by Père David in Kokonor.

245. *IXUS CHRYSORRHODES* (Lafr.); Ibis, 1867, p. 232, 1868, p. 63; P. Z. S. 1863, p. 278.

*Hæmatornis chrysorrhoides*, Lafr. Rev. Zool. 1845, p. 367.

*Pycnonotus hæmorrhous*, Ibis, 1860, p. 57.

*Muscicapa atricapilla*, Vieill.; Ibis, 1860, p. 358.

*Pycnonotus chrysorrhoides*, Ibis, 1861, p. 39.

*Ixus hæmorrhous*, Ibis, 1862, p. 307.

South China.

246. *IXUS JOCOSUS* (L.); P. Z. S. 1863, p. 277.

*Pycnonotus jocosus* (L.); Ibis, 1861, p. 39.

Canton.

247. *SPIZIXUS SEMITORQUES*, Swinh. Ibis, 1861, p. 266; P. Z. S. 1863, p. 278.

Fokien province, and westwards in the Ichang gorge.

248. *SPIZIXUS CINEREICAPILLUS*, n. sp.

*Sp. semitorques*, Swinh. Ibis, 1863, p. 290.

I identified the Formosan bird with the China species from a specimen injured about the head. The acquisition of a series from the Formosan mountains establishes the distinction between the two. The Formosan race is like the China bird, but has the dark parts of the head grey instead of black.

249. *CRINIGER PALLIDUS*, Swinh. Ibis, 1870, p. 252.

Hainan.

250. *PHYLLORNIS LAZULINA*, Swinh. Ibis, 1870, p. 255.

Hainan.

251. *SIBIA AURICULARIS* (Swinh.); Selater, Ibis, 1866, p. 109, pl. 4, p. 401.

*Kittacincla auricularis*, Swinh. Ibis, 1864, p. 361.

Formosa.

252. *POMATORHINUS ERYTHROCNE*, Gould, P. Z. S. 1862, p. 281; B. of As. pl.; Ibis, 1863, p. 286.

Formosa.

253. *POMATORHINUS MUSICUS*, Swinh. North China Asiat. Soc. Journ. May 1859; Ibis, 1860, pp. 187, 360, 1861, p. 284, pl. 6.

Formosa.



254. *POMATORHINUS STRIDULUS*, Swinh. Ibis, 1861, p. 265 ; P. Z. S. 1863, p. 278.

South China, westwards to Szechuen.

255. *POMATORHINUS NIGRO-STELLATUS*, Swinh. Ibis, 1870, p. 250.

Hainan.

256. *PTERORHINUS DAVIDI*, Swinh. Ibis, 1868, p. 61.

Western mountains of Pekin ; a fine songster. Two other species of this genus have been received from Moupin at Paris ; they will be described by M. J. Verreaux.

257. *LEUCODIOPTRUM CHINENSE*.

*Turdus chinensis*, Osb. Itin. 309.

*Turdus sinensis*, Gmel. Syst. Nat. 1788, p. 826.

*Garrulax canorus*, Ibis, 1860, p. 358, 1861, p. 38.

*Leucodioptrum sinense*, Ibis, 1870, p. 250 ; P. Z. S. 1863, p. 278.

Hainan to Ningpo.

258. *LEUCODIOPTRUM TAIVANUM*.

*Garrulax taëwanus*, Swinh. Journ. North China Asiat. Soc. May 1859, no. 2, p. 228 ; Ibis, 1860, pp. 187, 360, 1863, p. 279.

*Malacocercus taivanus*, Ibis, 1865, p. 546.

Formosa.

259. *GARRULAX CHINENSIS* (Scop.) ; Sonn. Voy. t. 107 ; Ibis, 1864, p. 423.

*Turdus shanhu*, Gmel. Syst. Nat. 1788, p. 814.

*Garrulax auritus* (Daudin) ; Ibis, 1865, p. 350.

South-west Kwangtung.

260. *GARRULAX PERSPICILLATUS* (Gmel.) ; Pl. En. 604 ; Ibis, 1861, p. 38, 1862, p. 306 ; P. Z. S. 1863, p. 278.

*Garrulax rugillatus*, Swinh. Ibis, 1860, pp. 57, 358.

*Turdus perspicillatus*, Gmel. Syst. Nat. 1788, i. p. 830.

Canton to Ningpo, and westward to Szechuen.

261. *GARRULAX ALBOGULARIS* (Gould, P. Z. S. 1835, p. 187).

Sent from Moupin by Père David.

262. *GARRULAX RUFICEPS*, Gould, P. Z. S. 1862, p. 281 ; B. of As. pl. ; Ibis, 1863, p. 282.

Formosa. Like the last, but with a rufous cap.

263. *GARRULAX SANNIO*, Swinh. Ibis, 1867, p. 403.

South China, and westwards to Szechuen. Procured in Western Yunnan by Dr. Anderson.



264. *GARRULAX MONACHUS*, Swinh. Ibis, 1870, p. 248.

Hainan.

265. *IANTHOCINCLA PÆCILORHYNCHA* (Gould).

*Garrulax pæcilorhynchus*, Gould, P. Z. S. 1862, p. 281; B. of As. pl.; Ibis, 1863, p. 283, 1866, p. 303.

Formosa.

266. *CINCLOSOMA ARTEMISIÆ*, David, Ann. & Mag. Nat. Hist. April 1871, p. 256.

Allied to *C. ocellatum*, Vigors, of the Himalayas. Procured by Père David at Moupin, Western Szechuen.

267. *TROCHALOPTERUM FORMOSUM*, J. Verr. Nouv. Arch. 1869, Bull. p. 35.

"General tint olivaceous rust-colour; head grey, lanceolated with black; throat and front of neck of this last colour; a great portion of the wings and of the upper surface of the tail blood-red. Belly and abdomen olivaceous."—*J. Verreaux*.

Sent by Père David from Moupin. Two other species of this genus, also from Moupin, remain to be described.

268. *CONOSTOMA ÆMODIUM*, Hodgs. J. A. S. x. p. 856.

Sent from Moupin by Père David.

269. *PARADOXORNIS FLAVIROSTRIS*, Gould, P. Z. S. 1836, p. 17.

Sent from Moupin by Père David.

270. *HETEROMORPHA UNICOLOR*, Hodgs. J. A. S. xii. p. 448.

Sent from Moupin by Père David. Like this in coloration is a curious species, also from Moupin, with one of its toes rudimentary.

271. *SUTHORA BULOMACHUS*, Swinh. Ibis, 1866, pp. 299, 303, pl. 9.

The lower hills of Formosa.

272. *SUTHORA SUFFUSA*, n. sp.

A smaller conspecies of the last, with the hind neck of a richer rufous and more definitely separated from the greyish olive of the back. Back washed with rufous in the other, blending with the rufous of the head. Bill smaller. Legs and feet much smaller; wing 2 inches, tail 2.5.

Seen in small parties in spring about the mountainous sides of the gorges on the Upper Yangtze.

273. *SUTHORA WEBBIANA*, G. R. Gray, P. Z. S. 1852, p. 70; Gould, B. of As. pl.; P. Z. S. 1863, p. 271.

Abundant about the hedges near Ningpo and Shanghai; mountains of Pekin (*David*). Kept in Shanghai for its fighting-qualities.



Like its Formosan congener it is very pugnacious, and will fight its fellows to the death. The Chinese use it in the gambling-ring.

274. *SUTHORA GULARIS*, J. Verr. Nouv. Arch. 1869, Bulletin, p. 35.

"Couleur générale laque jaune, devenant blanche sur les joues et le milieu de la partie inférieure excepté la gorge, qui est d'un noir pur; rémiges et rectrices noirâtres; partie supérieure de ces dernières rougeâtres, une tache jaune mordorée sur le milieu de l'aile s'étendant sur une partie des secondaires."—*J. Verreaux*.

Sent by Père David from Moupin. Père David has also sent another species hitherto undescribed from the same locality.

275. *SUTHORA BRUNNEA*, Anderson, P. Z. S. 1870, *antea*, p. 211.

Procured by Dr. Anderson at Momien (Yunnan province).

276. *LEIOTHRIX LUTEA* (Scop.); Ibis, 1865, p. 349; P. Z. S. 1863, p. 298.

South-west China, whence brought to Canton and sold alive in bird-shops.

Père David has sent a new *Minla* from Moupin, allied to *M. ignitincta*, Hodgs., of the Himalayas.

277. *YUHINA NIGRIMENTUM*, Hodgs. J. A. S. xiv. p. 562.

Sent by Père David from Moupin.

278. *YUHINA DIADEMATA*, J. Verr. Nouv. Arch. 1869, Bull. p. 35.

"Couleur générale brun terreux, plus pâle en dessus; milieu de l'abdomen, les couvertures sous-caudales blanc pur, devenant d'une teinte encore plus pure sur la grande tache occipitale, qui est précédée par de longues plumes formant une huppe; ailes et queue noires avec les rachis d'un blanc plus visible sur la dernière, qui est échan-crée."—*J. Verreaux*.

Sent by Père David from Moupin.

279. *STACHYRIS PRÆCOGNITUS*, Swinh. Ibis, 1866, p. 310.

Very like *St. ruficeps*, Blyth, of Nepal, but smaller, with much smaller bill, and with the red of the head confined to the crown.

Formosa; Ichang gorge of the Yangtsze river.

280. *HERPORNIS TYRANNULUS*, Swinh. Ibis, 1870, p. 347, pl. 10.

*Herpornis xanthochlora*, Swinh. Ibis, 1863, p. 293.

*Herpornis xantholeuca*, Swinh. Ibis, 1866, p. 394.

Formosa; Hainan.

281. *STAPHIDA TORQUEOLA*.

*Siva torqueola*, Swinh. Ann. & Mag. Nat. Hist. vol. v. 4th series, p. 174.



I described this as a *Siva*; but it is more allied to the genus *Ixulus*, from which it differs in having a deeply graduated tail. *Ixulus castaneiceps*, Moore, is of the same form as our bird; and I would propose to place these two under a new subgenus, *Staphida*. Our species was procured in Fokien province. Père David has sent a new species of *Ixulus* from Moupin.

282. *ALCIPPE NIPALENSIS*.

Sent from Moupin by Père David.

283. *ALCIPPE MORRISONIA*, Swinh. Ibis, 1863, p. 296, 1865, p. 107.

Formosa. A smaller conspecies of the last.

284. *ALCIPPE BRUNNEA*, Gould, P. Z. S. 1862, p. 280, B. of As. pl.; Ibis, 1863, p. 297.

Formosa.

285. *COCHOA VIRIDIS*, Hodgs. J. A. S. v. p. 359; Ibis, 1868, p. 354.

A single specimen procured at Amoy in December 1867. The Paris Museum has received the bird from Cochin-China.

286. *AMPELIS GARRULA* (L.); P. Z. S. 1863, p. 298.

North China.

287. *AMPELIS PHENICOPTERA*, Temm. F. J.; Ibis, 1864, p. 427, 1866, p. 307.

North China; Formosa.

288. *PSAROPHOLUS ARDENS*, Swinh. Ibis, 1862, p. 363, 1863, p. 293, 1866, pp. 297, 398.

Formosa.

289. *PSAROPHOLUS ARDENS*, var. *NIGELLICAUDA*, Swinh. Ibis, 1870, p. 342.

Hainan.

290. *ORIOLOUS CHINENSIS*, Gmel. Syst. Nat. 1788, p. 383; Swinh. Ibis, 1860, p. 57, 1861, pp. 58, 341, 1863, p. 291, 1866, p. 138, 1870, p. 342; P. Z. S. 1863, p. 282.

*Oriolus cochinensis*, Briss. Av. ii. p. 326.

*Oriolus indicus*, Jerd. Ill. Ind. Orn. pl.

Throughout China, and Formosa in summer. Resorts in winter to Cochin-China, Tenasserim, and India.

291. *PITTA MOLUCCENSIS* (Müll.).

*Turdus moluccensis*, P. L. S. Müller, Natursyst. Anhang (1766), p. 144.

*Pitta cyanoptera*, Temm.



*Pitta nympha*, Swinh. Ibis, 1861, pp. 412, 414; P. Z. S. 1863, p. 277.

A single specimen procured at Amoy.

292. *PITTA OREAS*, Swinh. Ibis, 1864, p. 428.

Formosa.

293. *LANIUS LAHTORA* (Sykes, P. Z. S. 1832, p. 86); Sharpe and Dresser, P. Z. S. 1870, p. 595.

Pekin in winter (*David*).

294. *LANIUS MAJOR*, Pall. Zoogr. i. p. 401.

Rare at Pekin (*David*). Under the name *L. mollis*, Eversm.\*, a specimen of this has been sent from Trans-Baikal.

295. *LANIUS SCHACH*, L.; Zool. 1858, p. 6228; Ibis, 1860, p. 59, 1861, p. 43, 1865, p. 356, 1870, p. 240; P. Z. S. 1863, p. 286.

*Lanius chinensis*, Gray, Zool. Misc. p. 1.

*Lanius schach*, var. *formosæ*, Ibis, 1863, p. 270.

China generally; Formosa; Hainan.

296. *LANIUS TEPHRONOTUS* (Vig. P. Z. S. 1831, p. 43).

Sent by Père David from Moupin.

297. *LANIUS FUSCATUS*, Less.; Walden, Ibis, 1868, p. 69, 1870, p. 241.

*Lanius melanthes*, Swinh. Ibis, 1867, p. 405.

South China; Hainan.

298. *LANIUS MAGNIROSTRIS*, Less.; Ibis, 1867, pl. 6.

*Lanius waldeni*, Swinh. P. Z. S. 1870, p. 131, pl. 11.

Comes from Malacca to Central China to breed. Female, when fully adult, like the male.

299. *LANIUS BUCEPHALUS*, Temm. & Schleg. Faun. Jap. t. 14; Ibis, 1860, pp. 60 et 132, 1861, p. 340; P. Z. S. 1862, p. 319, 1863, p. 287.

Pekin; Amoy (one female specimen procured in winter). Male differs much from the female.

300. *LANIUS CRISTATUS*, L.; Gmel. Syst. Nat. 1788, p. 298.

*Lanius phœnicurus*, Pall.

Upper parts reddish brown; crown the same from the base of the beak; eyebrow yellowish and not well defined. A male from Amoy agrees with examples from India. Adult female resembles the male. Received frequently in full summer plumage from Trans-Baikal.

301. *LANIUS SUPERCILIOSUS*, L.

Rather brighter than the last; forehead and well-defined eye-

[\* Cf. Ann. Nat. Hist. ser. 2, xvii. p. 78.—Ed.]



brow white. A male from Amoy agrees with specimens from the Amoor and Malacca. Adult female resembles the male.

302. *LANIUS LUCIONENSIS*, L.; Gmel. Syst. Nat. 1788, p. 299; Ibis, 1860, p. 59, 1861, pp. 43, 255, 340, 1863, p. 272, 1866, pp. 135, 295, 394; P. Z. S. 1863, p. 286, 1870, p. 428.

*Lanius schwaneri*, Bp. Consp. Av. i. p. 363.

Upper parts light liver-brown; forehead greyish white, with well-defined white eyebrow. Adult female resembles the male. The commonest species that passes through Amoy. Those collected on passage through Formosa are all immature, as if they had not strength to make the through voyage to the Philippines without rest. *L. schwaneri* of Borneo seems, from the description, to be based on a partially mature female of this species. Found in summer as far north as Talien Bay.

303. *LANIUS INCERTUS*, n. sp.

Crown, from beak to occiput, cinereous, with no eyebrow; rest of upper parts reddish brown, brighter on the rump. One male specimen procured at Amoy from a party of the last.

These four red-tailed Shrikes may be considered geographical races, or representative species, each reserving to itself an area in South-eastern Asia for its winter haunt, and another in North-eastern Asia for its summer haunt. The *L. cristatus*, that spreads throughout India in winter, seems to seek a family home in Dauria and the country directly north of India, extending to Trans-Baikal; *L. lucionensis* travels across the sea from its warm winter retreat in the Philippines, and spends its summer in North China, extending its range to Talien Bay; the southernmost species, *L. superciliosus*, comes from Malacca, and, passing the summer range of the latter, seeks the high latitudes of Amoorland and northern Japan as more suitable for the nurture of its offspring. As in the case of the *Limicolæ*, those that go furthest north to breed, hurry furthest south to escape the rigours of winter; such is, apparently, the case with *L. superciliosus*. But this is scarcely a rule with land-birds; for this Shrike's winter compatriot, *L. magnirostris*, as I have shown (P. Z. S. 1870, p. 131), is contented to accommodate himself at a halfway station on the journey in Central China. The route taken by *L. superciliosus* is not down the China coast, or we should meet him straggling down in spring and autumn, as all the migrants do that travel by land. He probably takes the more inland course followed by many birds that summer in North China and the Amoor. How, then, does it occasionally turn up with the large flights of *L. lucionensis* bound to the Philippines and Borneo? How, further, does it happen that *L. cristatus* should step out of its way and straggle on a tour to a country widely separate from its regular winter quarters? I would suggest as an explanation that the routes travelled by the three species must somewhere cross or touch, and that the outliers of the bird-caravans would get attracted to the



allied throng with which they came into contact, and so pass on with it inadvertently. Thus it is matter of no great surprise that the typical *L. lucionensis* is occasionally obtained, as Mr. Blyth informs me, in Ceylon, whither it would have travelled with *L. cristatus*, or in the Tenasserim, whither the company of *L. superciliosus* would have conducted it. To account for this phenomenon I was before led to suppose that the variation of the three species was not constantly fixed, and that each race occasionally developed the peculiarities of either of the others. But my present hypothesis is, I think, the right one. There need be no confusion of races by the intercrossing of species, for the misguided birds would be among strangers only for the winter; in the summer, on their return journey, they would have the opportunity of rejoining their species.

*Lanius incertus* is founded on one male specimen, and, from its being so different in plumage, will, I think, be found to belong to another geographical race, with winter and summer resorts of its own, which has, in a similar way, been allured from its ordinary course of migration.

304. *TEPHRODORNIS PELVICA* (Hodgs.); Ibis, 1870, p. 241.

*Tenthaca pelvica*, Hodgs. Ind. Rev. 1837, p. 447.

Hainan.

305. *ARTAMUS FUSCUS* (Vieill.); Ibis, 1862, p. 306, 1870, p. 247; P. Z. S. 1863, p. 287.

Hainan. Macao (Cassin, v. Perry's Exp. to Japan).

306. *DICRURUS CATHÆCUS*, n. sp.

*D. macrocerus*, Swinh. Ibis, 1860, p. 59, 1861, pp. 43, 340, 1863, p. 266, 1865, p. 348, 1866, p. 121, 1870, p. 244; P. Z. S. 1862, p. 319, 1863, p. 285, 1870, p. 433.

The term *macrocerus* has been applied in India to two distinct species of Black Drongos,—the one a long bird, always distinguishable by a white spot close to the gape, the *D. albirictus* of Hodgson; and the other allied to our Chinese bird. The name was given by Vieillot to the Java bird of this group—the *Edolius longus*, Temm., and *E. forficatus*, Horsf. The Java species is smaller than the Indian bird, of more slender and elongated form, and has smaller feet. Our China bird, which is found throughout China, Hainan, and Formosa, is larger than its Indian ally, with longer bill and much longer wing, and has a rich bronze gloss over its feathers, including its wings and tail; wing 6 inches, tail 6. I propose to separate it specifically under the above name. Our Drongo, in its nestling plumage, is of a greyish black (which browns with wear), deeper on the upper parts, bronzed on its wings and tail, with white on its axillaries and carpal edge. In changing into the bronzed plumage of the adult, the feathers of the underparts appear with broad white margins, which gradually give place to uniform bronze. Young males often begin to acquire the adult plumage on leaving the nest.



307. *BUCHANGA MOUHOTI*, Walden, Ann. Mag. N. H. 4th ser. v. p. 220; Ibis, 1870, p. 245.

Hainan.

308. *BUCHANGA LEUCOGENYS*, Walden, Ann. Mag. N. H. 4th ser. v. p. 219; Ibis, 1870, p. 245.

*Dicrurus cineraceus*, Ibis, 1861, p. 265, 1862, p. 258.

*Dicrurus cinerascens*, Ibis, 1861, p. 411.

*Dicrurus leucophæus*, P. Z. S. 1863, p. 285.

Hainan to Foochow, and westward to Szechuen.

309. *BUCHANGA INNEXA*, Swinh. Ibis, 1870, p. 246.

Hainan.

310. *CHIBIA BREVIROSTRIS*, Cab. Mus. Hein. i. p. 112.

*Chibia hottentotta* (L.); Ibis, 1861, p. 411, 1863, p. 96; P. Z. S. 1862, p. 319, 1863, p. 285.

Amoy; Tientsin; Pekin (*David*). Outer tail-feather very broad and much curled, bill rather shorter, bronzed spots on breast rounder, frontal deflected bristles long and coarse; otherwise very similar to *C. hottentotta* of India.

311. *CHAPTIA BRAUNIANA*, Swinh. Ibis, 1863, p. 269, 1866, p. 399.

Formosa.

312. *GRAUCALUS REX-PINETI*, Swinh. Ibis, 1863, p. 265, 1866, pp. 393, 402, 1870, p. 242.

Formosa; Hainan.

313. *VOLVOCIVORA MELASCHISTA*, Hodgs. Ind. Rev. 1837, p. 328; P. Z. S. 1863, p. 282.

*Volvocivora lugubris*, Sundev.

*Campephaga cinerea*?, Ibis, 1860, p. 58.

*Campephaga* —?, Ibis, 1861, p. 42.

Canton to Foochow, and westwards to Szechuen. Summer visitant.

314. *VOLVOCIVORA SATURATA*, Swinh. Ibis, 1870, p. 242.

Hainan.

315. *PERICROCOTUS CINEREUS*, Lafresn. Rev. Zool. 1845, p. 94; Ibis, 1860, p. 58, 1861, p. 42, 340, 1862, p. 263, 1870, p. 244; P. Z. S. 1863, p. 283.

Ranges from the South to Pekin.

316. *PERICROCOTUS CANTONENSIS*, Swinh. Ibis, 1861, p. 42, 1865, p. 107, 1870, p. 244; P. Z. S. 1863, p. 284.

*Pericrocotus sordidus*, Swinh. (immature), P. Z. S. 1863, p. 284. Northwards to Foochow, and westwards to Szechuen.



317. *PERICROCOTUS IGNEUS*, Blyth; J. Verreaux, Rev. et Mag. de Zool. (May 1867) p. 169.

Western China, Perny's collection (*J. Verr.*).

318. *PERICROCOTUS BREVIROSTRIS*, Vig.; Gould, Cent. pl. 8.

Passes Pekin in migration, but does not breed in the Chelee province (*David*).

319. *PERICROCOTUS GRISEIGULARIS*, Gould, P. Z. S. 1862, p. 282; B. of As. pl.; Ibis, 1863, p. 263, 1866, p. 399.

Formosa; Fokien province.

320. *PERICROCOTUS SPECIOSUS* (Lath.); Gould, Cent. pl. 7; Ibis, 1867, p. 403; P. Z. S. 1863, p. 285.

*Pericrocotus brevirostris*?, Ibis, 1862, p. 257.

Fokien province.

321. *PERICROCOTUS FRATERCULUS*, Swinh. Ibis, 1870, p. 244.

Hainan.

322. *BUTALIS GRISEOSTICTA*, Ibis, 1866, p. 131, P. Z. S. 1863, p. 288.

*Hemichelidon griseisticta*, Swinh. Ibis, 1861, p. 330, 1863, p. 262.

*Hemichelidon fuliginosa*, Ibis, 1860, p. 57.

*Butalis hypogrammica*, G. R. Gray; Wallace, Ibis, 1862, p. 350. China in summer, winters in the Moluccas.

323. *BUTALIS SIBIRICA* (Gmel.); P. Z. S. 1863, p. 288, 1870, p. 440.

*Muscicapa sibirica*, Gmel. Syst. Nat. 1788, p. 936.

*Muscicapa fuscedula*, Pall. Zoogr. i. p. 462.

*Hemichelidon fuliginosa*, Hodgs.

Amoy; Pekin.

324. *BUTALIS FERRUGINEA* (Hodgs.); Ibis, 1870, p. 247; P. Z. S. 1863, p. 288.

*Hemichelidon rufilata*, Swinh. Ibis, 1860, p. 57.

*Hemichelidon ferruginea*, Hodgs. Ibis, 1861, p. 40.

South China; Hainan.

325. *BUTALIS LATIROSTRIS* (Raffles), P. Z. S. 1863, p. 288.

*Hemichelidon latirostris*, Ibis, 1860, p. 57, 1861, pp. 40, 330, 1863, p. 262.

*Muscicapa latirostris*, Raffles, Trans. Linn. Soc. xiii. pt. 2 (1822), p. 312.

*Muscicapa cinereoalba*, Temm. & Schleg. Faun. Jap.; Ibis, 1870, p. 247.

*Muscicapa grisola*, var. *daurica*, Pall. Zoogr. i. p. 461.

Summers in China.



326. *ERYTHROSTERNA ALBICILLA* (Pall.) ; P. Z. S. 1862, p. 317.

*Muscicapa albicilla*, Pall. Zoogr. i. p. 462.

*Erythrosterna leucura* (Gmel.) ; Ibis, 1860, p. 357, 1863, p. 92, 1870, p. 247 ; P. Z. S. 1863, p. 290.

*Erythrosterna mugimaki*, Ibis, 1861, p. 330.

*Thamnobia niveiventris*, Swinh. Ibis, 1860, p. 54.

Winters in Southern China. Gmelin's *Muscicapa leucura* (Syst. Nat. i. 1788, p. 939) is from the Cape of Good Hope, and therefore cannot be our bird.

327. *ERYTHROSTERNA LUTEOLA* (Pall.) ; Midd. Sib. Reis. pl. xvii. (winter plumage) ; Ibis, 1866, p. 313 ; P. Z. S. 1863, p. 290.

*Motacilla luteola*, Pall. ; Zoogr. i. p. 470.

*Muscicapa mugimaki*, T. & S. Faun. Jap. (adult ♂ in summer) ; Ibis, 1860, p. 357, 1867, p. 390, 1870, p. 247.

*Muscicapa hylocharis*, Swinh. Ibis, 1862, p. 305 (young ♂).

China coast and Formosa in autumn. Wanders down to Penang (*E. erythaca*, Blyth).

328. *MUSCICAPULA SAPPHIRA* (Tick.) ; Jerd. Ind. Orn. pl. 32.

Western China (Perny's coll., Rev. et Mag. de Zool. 1867, p. 169).

329. *XANTHOPYGIA NARCISSINA* (Temm.) Pl. Col. 577 ; Swinh. Ibis, 1860, p. 58, 1861, pp. 41, 410, 1870, p. 247 ; P. Z. S. 1863, p. 289.

Passes up and down the China coast. Summers in Japan.

330. *XANTHOPYGIA TRICOLOR* (Hartl.).

*Xanthopygia leucophrys*, Blyth, Ibis, 1861, p. 410, 1863, p. 92 ; P. Z. S. 1862, p. 317, 1863, p. 289.

Rare on the coast. Breeds near Pekin (*David*). Found in winter in Malacca.

331. *NILTAVA SUNDARA*, Hodgs. Ind. Rev. 1837, p. 650 ; Gould, B. of As. pl.

Western China (Perny's collection, identified by J. Verreaux).

332. *CYORNIS VIVIDA*, Swinh. Ibis, 1864, p. 363, 1866, p. 393, pl. 11.

Formosa. The male is a mimicry of the last ; the female, a true *Cyornis*, without the blue spot on the side of the neck that distinguishes females of the *Niltava* group.

333. *CYANOPTILA CYANOMELÆNA* (Temm.) Pl. Col. 470 ; Ibis, 1870, p. 247.

*Muscicapa gularis*, T. & Schleg. F. J. (♀).

*Niltava cyanomelæna*, Ibis, 1860, p. 58, 1861, p. 41, 1863, p. 92 ; P. Z. S. 1862, p. 317, 1863, p. 290.

*Hypothymis cyanomelæna*, Ibis, 1862, p. 306.

Passes up and down the China coast. Summers in Japan.



334. *STOPAROLA MELANOPS* (Vig.); Gould, Cent. pl. 6; Ibis, 1861, p. 263.

*Eumyias melanops*, P. Z. S. 1863, p. 289.

Amoy; Western China (*Perny* and *David*).

335. *SIPHIA STROPHIATA*, Hodgs. Ind. Rev. 1837, p. 651.

Moupin, from Père David. The Paris Museum has received another species from the same locality allied to *S. erithacus*, Blyth, from Darjeeling.

336. *DIGENIA SUPERCILIARIS* (Blyth, J. A. S. xi. p. 190); P. Z. S. 1845, p. 26.

*Siphia innexa*, Swinh. Ibis, 1866, p. 394.

*Siphia rubrocyanea*, Hodgs.

Formosa. Known also from the Himalayas; and from Timor as *Muscicapa tricolor* ♂ (*rupestris* ♀), Müll.: see Blyth, Ibis, 1865, p. 44.

337. *MYIAGRA AZUREA* (Bodd.), Pl. En. 666; Ibis, 1861, p. 263, 1863, p. 261, 1865, p. 545, 1870, p. 247; P. Z. S. 1863, p. 289.

*Tchitrea cæruleocephala*?, Ibis, 1860, p. 57.

Formosa; Hainan; Amoy (one specimen).

338. *CULICICAPA CINEREOCAPILLA* (Vieill.); Sw. Zool. Ill. pl. 13.

Szechuen province, in the gorges of the Yangtsze river. The former generic name of this species (*Cryptolopha*) having been preoccupied, I propose to apply to it the above term.

339. *TCHITREA PRINCEPS* (Temm. Pl. Col. 584).

*Tch. principalis*, Ibis, 1860, p. 57, 1861, pp. 39, 411, 1863, p. 260, 1865, p. 541; P. Z. S. 1863, p. 289.

Passes the South-China coast. Summers in Japan.

340. *TCHITREA INCEI*, Gould, B. of As. pl.; Ibis, 1863, p. 92; P. Z. S. 1862, p. 317, 1863, p. 289, 1870, p. 439.

*T. principalis*, Ibis, 1861, p. 330, 1866, p. 297.

Summers in Central and North China.

341. *GARRULUS SINENSIS*, Gould, P. Z. S. 1863, p. 304.

*G. ornatus*, Ibis, 1861, p. 267, 1862, pp. 261, 263.

South China, westwards to Szechuen. Chinese specimens have longer legs and feet than the Himalayan *G. bispecularis*, Vigors; but I can detect no other difference.

342. *GARRULUS TAIVANUS*, Gould; P. Z. S. 1862, p. 282; B. of As. pt. xvi.; Ibis, 1863, p. 386.

Formosa.



343. *GARRULUS BRANDTI*, Eversm. Addend. ad Pall. Zoogr. Rosso-Asiat. 1843, iii. p. 8.

North China; Pekin.

344. *UROCISSA SINENSIS* (L.); Ibis, 1861, pp. 43, 267, 409, 1862, p. 261, 1865, p. 349, 1867, p. 407; P. Z. S. 1863, p. 304, 1870, p. 448.

*Cuculus sinensis*, Gmel. Syst. Nat. i. (1788) p. 418.

*Corvus erythrorhynchus*, Gmel. p. 372.

Throughout China.

345. *UROCISSA CÆRULEA*, Gould; P. Z. S. 1862, p. 282; B. of As. pl.; Ibis, 1863, p. 384, 1866, pp. 121, 296, 303.

Formosa.

346. *DENDROCITTA SINENSIS* (Lath.); Ibis, 1868, p. 62, 1870, p. 351; P. Z. S. 1863, p. 304.

*Corvus sinensis*, Lath. Ind. Orn. i. p. 161.

South China; Hainan.

347. *DENDROCITTA FORMOSÆ*, Swinhoe.

*Dendrocitta sinensis*, var. *formosæ*, Ibis, 1863, p. 387, 1865, p. 234, 1866, pp. 296, 394.

Formosa.

348. *NUCIFRAGA CARYOCATACTES* (L.); P. Z. S. 1863, p. 306, 1870, p. 448.

Pekin.

349. *NUCIFRAGA HEMISPILA*, Vig.; Gould, C. B. pl. 36.

Sent from Moupin by Père David.

350. *PICA MEDIA*, Blyth, J. A. S. xiii. (1844), p. 393; Ibis, 1863, p. 383, 1870, p. 350.

*Pica sericea*, Gould, P. Z. S. 1845, p. 2; Ibis, 1860, pp. 60, 429, 1861, pp. 43, 336, 1867, p. 236.

*Pica caudata*, P. Z. S. 1863, p. 303.

Throughout China; Formosa; Hainan. Birds from Pekin and Kalgan are much more brightly coloured than southern examples.

351. *CYANOPOLIUS CYANUS*.

*Corvus cyanus*, Pall. Zoogr. R. A. i. p. 391.

*Cyanopica cyana*, Ibis, 1861, p. 336; P. Z. S. 1863, p. 304.

Shanghai to Pekin, and westwards to Ichang (Hoopih province).

352. *CORVUS JAPONENSIS*, Bp. Consp. Av. p. 386.

*Corvus macrorhynchus*, Schleg. Faun. Jap. t. 39.

Beyond the Great Wall.



353. *CORVUS SINENSIS*, Gould ; Moore, Cat. Birds E. I. Co. ii. p. 556 ; Ibis, 1862, p. 260, 1863, pp. 95, 383, 1870, p. 348 ; P. Z. S. 1863, p. 305.

*Corvus colonorum*, Swinh. Ibis, 1864, p. 427, 1866, pp. 296, 402.

*Corvus japonicus*, Ibis, 1861, p. 337.

*Corvus japonensis*, Ibis, 1862, p. 260.

Throughout China ; Formosa ; Hainan.

354. *CORVUS TORQUATUS*, Lesson, Traité d'Ornith. p. 328 ; P. Z. S. 1863, p. 305.

*Corvus pectoralis*, Gould, Ibis, 1860, p. 60, 1861, pp. 43, 337, 1862, p. 260, 1867, p. 411, 1870, p. 350.

355. *CORVUS CORONE* (L.) ; Ibis, 1870, pp. 79, 348.

Naochow Island, near Hainan.

356. *FRUGILEGUS PASTINATOR*.

*Corvus pastinator*, Gould, P. Z. S. 1845, p. 1 ; Ibis, 1861, p. 336 ; P. Z. S. 1863, p. 305.

Ningpo to Pekin.

357. *LYCOS DAURICUS* (Pall. Zoogr. t. 15) ; P. Z. S. 1863, p. 304.

*Corvus dauricus*, Ibis, 1861, pp. 257, 337.

Ningpo to Pekin. I cannot understand Prof. Schlegel (Mus. des Pays-Bas) considering the following species the young of this bird. I have taken this bird from the nest, and found the young beginning life with all the pied characters of the adult.

358. *LYCOS NEGLECTUS* (Schleg. F. J. t. 40) ; P. Z. S. 1863, p. 305.

*Corvus neglectus*, Ibis, 1861, pp. 259, 337, 1867, p. 227.

Ningpo to Pekin. This species is closely related to *L. monedula*, but has a much smaller and slenderer bill, and no grey on the sides of the head and neck. I have procured at Shanghai a hybrid between this and the last.

359. *FREGILUS GRACULUS* (L.), var. *BRACHYPUS*.

*Fregilus graculus*, Ibis, 1863, p. 95 ; P. Z. S. 1862, p. 319, 1863, p. 306, 1870, pp. 434, 444.

Pekin. The Himalayan bird has much longer feet than ours, and scarcely any purple gloss on the body-plumage. Ours differs also from the European species by its tarsi being a good deal shorter and its toes quite stumpy. A bird from Siberia in the Cambridge Museum agrees with the Chinese bird.

360. *EULABES SINENSIS*, Swinh. Ibis, 1870, p. 353.

South-west China.



361. *EULABES HAINANUS*, Ibis, 1870, p. 352.

*Gracula*, sp., Ibis, 1860, p. 361.

Hainan.

362. *ACRIDOTHERES CRISTATELLUS* (L.); Ibis, 1860, pp. 60, 429, 1861, p. 44, 1862, p. 260, 1863, p. 382; P. Z. S. 1863, p. 302.

*Gracula cristatella*, Gmel. Syst. Nat. 1788, p. 397.

*Acridotheres philippensis*, Ibis, 1867, p. 387, 1870, p. 352.

South China to Shanghai, and westwards to Szechuen; Hainan; Formosa.

363. *GRACUPICA NIGRICOLLIS* (Payk.); Act. Holm. xxviii. t. 9; Ibis, 1860, p. 60, 1861, pp. 44, 260; P. Z. S. 1863, p. 303.

*Pastor bicolor*, Gray, Zool. Misc. p. 1.

Canton to Foochow.

364. *TEMENUCHUS SINENSIS* (Gmel.); Ibis, 1866, p. 394, 1870, p. 352.

*Temenuchus turdiformis* (Wagler); Ibis, 1860, p. 60, 1861, p. 44.

*Heterornis sinensis*, Ibis, 1863, p. 382, 1865, p. 358, 1866, p. 138; P. Z. S. 1863, p. 302.

Summers in South China from Canton to Foochow. Observed as a migrant in Formosa and Hainan. Winters in Pegu.

365. *TEMENUCHUS DAURICUS* (Pall. Act. Stockh. 1778, iii. p. 198); Pl. Enl. 627. 3; Ibis, 1863, p. 95; P. Z. S. 1863, p. 302.

*Gracula sturnina* (Pall.); Gmel. Syst. Nat. 1788, p. 399.

*Sturnus pyrrhogenys*, Ibis, 1861, p. 338.

*Sturnus dauricus*, Ibis, 1866, p. 131; P. Z. S. 1862, p. 319.

Procured at Tientsin and Peking; would appear to summer in North-east Tartary, and to winter in Malacca and Java.

366. *STURNUS CINERACEUS*, Temm. Pl. Col. 556; Ibis, 1861, pp. 257, 338, 1863, p. 382, 1870, p. 352; P. Z. S. 1862, p. 319, 1863, p. 301.

*Temenuchus cineraceus* (Temm.); Ibis, 1860, p. 60, 1861, p. 44.

Passes down the coast in winter. Breeds in North China. Found during winter in Formosa and Hainan.

367. *STURNUS SERICEUS*, Gmel. Syst. Nat. 1788, p. 805; Ibis, 1861, p. 338; P. Z. S. 1863, p. 301.

*Pastor sericeus*, Gray, Zool. Misc. p. 1.

*Temenuchus sericeus* (Lath.); Ibis, 1860, p. 60, 1861, p. 44.

*Sturnus cinereus*, Ibis, 1862, p. 306.

Fokien and Canton provinces.

368. *MUNIA SINENSIS* (Briss.).

*Coccothraustes sinensis*, Briss. Orn. iii. p. 238.



*Munia rubronigra*, Hodgs. Ibis, 1861, p. 45; Blyth, Ibis, 1860, p. 61.

South-west China.

369. *MUNIA FORMOSANA*, Swinh. Ibis, 1865, p. 356.

Formosa.

370. *MUNIA TOPELA*, Swinh. Ibis, 1863, p. 380, 1870, p. 354; P. Z. S. 1863, p. 299.

*Munia malacca*, Ibis, 1860, p. 61, 1861, p. 45.

South China; Hainan; Formosa.

371. *MUNIA ACUTICAUDA*, Hodgs. As. Res. xix. (1836) p. 153; Ibis, 1863, p. 379, 1870, p. 354; P. Z. S. 1863, p. 299.

*Munia molucca*, Ibis, 1860, p. 61.

*Munia minima*?, Ibis, 1860, p. 358, 1861, p. 45.

Hainan to Shanghai, and westwards to Szechuen; Formosa.

372. *PADDA ORYZIVORA* (Linn.).

*Oryzornis oryzivora*, Ibis, 1860, p. 60.

*Munia oryzivora*, Ibis, 1861, p. 45; P. Z. S. 1863, p. 299.

Hongkong; Amoy; Shanghai.

373. *FRINGILLA MONTIFRINGILLA*, L.; Ibis, 1861, p. 335, 1864, p. 423; P. Z. S. 1862, p. 318, 1863, p. 298.

North China in winter. Occurs occasionally as far south as Amoy.

374. *CHRYSOMITRIS SPINUS* (L.); Ibis, 1861, p. 267; P. Z. S. 1863, p. 299, 1870, p. 433.

*Fringilla spinus*, Ibis, 1861, p. 335.

Pekin in autumn, and in winter down to Foochow.

375. *CHLOROSPIZA SINICA* (L.); P. Z. S. 1863, p. 299, 1870, p. 433.

*Ligurinus sinicus*, Ibis, 1860, p. 61, 1861, p. 45.

*Fringilla sinica*, Ibis, 1861, p. 335, 1863, p. 378.

Canton to Pekin, and westwards to Ichang (Hoopih Province).

376. *PYRGITA PETRONIA* (L.).

Breeds in the Ordo Mountains, north-west of Pekin (*David*). Père David, in his Catalogue, mentions an allied Finch which he has procured on the most elevated regions of Mongolia. This novelty will shortly be described by J. Verreaux.

377. *LEUCOSTICTE BRUNNEINUCHA* (Brandt).

Seen in North Chelee in the coldest weather (*David*).

378. *FRINGILLAUDA NEMORICOLA*, Hodgs. As. Res. xix. (1836) p. 158; Bp. Lox. t. 47.

Sent from Moupin by Père David.

PROC. ZOOL. SOC.—1871, No. XXV.



379. *ÆGIOTHUS BOREALIS* (Temm.).

*Ægiothus canescens*, Gould; P. Z. S. 1863, p. 299.

*Cannabina canescens*, Ibis, 1861, p. 335.

Winters in North China.

380. *PASSER MONTANUS* (L.); Ibis, 1860, p. 60, 1861, pp. 45, 255, 1863, p. 378, 1870, p. 354; P. Z. S. 1863, p. 299, 1870, p. 433.

*Fringilla montana*, Ibis, 1861, p. 335, 1862, pp. 258, 260.

The House-Sparrow of all China, Hainan, and Formosa.

381. *PASSER RUTILANS*, Temm. Pl. Col. 288.

*Passer russatus*, Schleg. Faun. Jap.; Ibis, 1861, p. 45, 1863, p. 378, 1866, p. 295; P. Z. S. 1863, p. 299.

South China and Formosa.

382. *PASSER CINNAMOMEUS* (Gould).

*Pyrgita cinnamomea*, Gould, P. Z. S. 1835, p. 185.

Occurs at Ichang, and westwards to Szechuen.

383. *PASSER OURATENSIS*, David, in Mus. Pekin; Swinh. P. Z. S. 1870, p. 430.

Ordo Mountains (*David*).

384. *COCCOTHAUSTES VULGARIS*, var. *JAPONICUS*, Ibis, 1861, p. 336; P. Z. S. 1863, p. 299, 1870, p. 448.

*Coccothraustes vulgaris japonicus*, T. & S. Faun. Jap.

Shanghai to Pekin, and westwards to the Ichang gorge.

385. *EOPHONA MELANURA* (Gmel.); Gould B. of As. pl.; Ibis, 1867, p. 390.

*Coccothraustes melanurus*, Ibis, 1860, p. 61, 1861, p. 45; P. Z. S. 1863, p. 299.

*Loxia melanura*, Gmel. Syst. Nat. i. p. 853.

Throughout China.

386. *EOPHONA PERSONATA*, Schleg. F. J. t. 52; P. Z. S. 1870, p. 448.

Pekin.

387. *MYCEROBAS MELANOXANTHUS*, Hodgs.

*Coccothraustes melanoxanthus*, Hodgs. As. Res. xix. (1836) p. 150.

Sent from Moupin by Père David.

388. *PYRRHULA GRISEIVENTRIS*, Lafr.

*Pyrrhula orientalis*, Temm. F. J. t. 58.

From Shanghai northwards.



389. *PYRRHULA ERYTHROCEPHALA*, Vig. P. Z. S. 1831, p. 174 ; Gould, C. B. pl. 32.

Sent from Moupin by Père David.

390. *CARPODACUS ERYTHRINUS* (Pall. Zoogr. t. 36) ; Ibis, 1863, p. 95 ; P. Z. S. 1862, p. 318, 1863, p. 299.

Visits China in winter.

391. *CARPODACUS DAVIDIANUS*, M.-Edw. N. Arch. du Mus. i. t. 2, 3.

Breeds on the highest mountains near Pekin (*David*).

392. *CARPODACUS MONGOLICUS*, Swinh. P. Z. S. 1870, p. 447.

On the western hills near Pekin. Resident in Ordo (*David*). The Paris Museum has received three other species of this group from Moupin, which appear to be new. One of them has been wrongly referred to *Pyrrha saturata*, Bp.

393. *URAGUS SIBIRICUS* (Pall.)

*Loxia sibirica*, Pall. Itin. ii. Append. p. 711.

One specimen procured by Père David at Pekin.

394. *LOXIA ALBIVENTRIS*, Swinh. P. Z. S. 1870, p. 437.

*Loxia curvirostra* (L.), Ibis, 1861, p. 336 ; P. Z. S. 1863, p. 299.

Pekin.

395. *LOXIA HIMALAYANA*, Hodg. ; Gray's Zool. Misc. 1844, p. 85.

Sent by Père David from Moupin.

396. *MELOPHUS MELANICTERUS* (Gmel.) ; P. Z. S. 1863, p. 300.

*Fringilla melanicterus*, Gmel. S. N. i. p. 910.

*Emberiza lathamii*, Gray, Zool. Misc. p. 1.

*Melophus lathamii*, Ibis, 1860, p. 62, 1861, p. 46, 1867, p. 233. South China.

397. *EUSPIZA AUREOLA* (Pall. It. ii. p. 711) ; Ibis, 1860, p. 62, 1861, pp. 45, 334 ; P. Z. S. 1863, p. 300.

*Emberiza aureola*, Ibis, 1863, p. 378, 1870, p. 354.

China generally.

398. *EUSPIZA RUTILA*, Pall. It. iii. p. 698 ; P. Z. S. 1863, p. 300.

*Emberiza rutila*, Ibis, 1861, pp. 334, 410 ; P. Z. S. 1862, p. 318.

*Emberiza sinensis*, Gmel. Syst. Nat. 1788, i. p. 869.

North China, wandering south in winter.



399. *EUSPIZA SULPHURATA* (Temm. & Schleg.) Faun. Jap. t. 60 ; Ibis, 1860, p. 359, 1861, pp. 46, 334 ; P. Z. S. 1863, p. 300.

*Emberiza sulphurata*, Ibis, 1863, p. 378.

South China and Formosa in winter.

400. *EMBERIZA FUCATA*, Pall. It. iii. p. 698 ; Faun. Jap. t. 57 ; Ibis, 1860, p. 61, 1861, pp. 45, 324, 1863, p. 378, 1870, p. 354 ; P. Z. S. 1863, p. 301.

South China in winter.

401. *EMBERIZA RUSTICA*, Pall. It. iii. p. 698 ; P. Z. S. 1863, p. 301.

North China.

402. *EMBERIZA SPODOCEPHALA*, Pall. It. iii. p. 698 ; Ibis, 1863, p. 377, 1870, p. 354 ; P. Z. S. 1863, p. 300.

*Emberiza personata*, Temm. Pl. Col. 580 ; Ibis, 1861, pp. 45, 334, 1862, p. 258.

*Euspiza personata*, Ibis, 1860, p. 62.

South China and Formosa in winter.

403. *EMBERIZA ELEGANS*, Temm. Pl. Col. 583.

North China and Moupin.

404. *EMBERIZA ELEGANTULA*, Swinh. P. Z. S. 1870, p. 134.

Ichang gorge (Hoopih province).

405. *EMBERIZA CHRYSOPHRYS*, Pall. It. iii. p. 698 ; P. Z. S. 1863, p. 301.

North China ; Szechuen.

406. *EMBERIZA LEUCOCEPHALA*, S. G. Gmel. Nov. Comm. Petrop. xv. p. 480.

*Emberiza pithyornus*, Pall. It. ii. p. 710 ; Ibis, 1863, p. 95 ; P. Z. S. 1863, p. 300.

*Emberiza* — ? , Ibis, 1861, p. 334.

Pekin.

407. *EMBERIZA CIOPSIS*, Bp. ; P. Z. S. 1863, p. 300.

*Emberiza cioides*, Temm. & Schleg. Faun. Jap. t. 59 ; Ibis, 1861, pp. 409, 410, 1863, p. 378 ; P. Z. S. 1870, p. 436.

*Emberiza rustica*, Ibis, 1861, p. 255, 1863, p. 87.

*Emberiza gigliolii*, Swinh. Ibis, 1867, p. 393.

South China in winter.

408. *EMBERIZA TRISTRAMI*, Swinh. P. Z. S. 1870, p. 441.

*Emberiza stracheyi*, Ibis, 1863, p. 95 ; P. Z. S. 1862, p. 318, 1863, p. 301.

Tientsin. Fokien in winter.



409. *EMBERIZA CASTANEICEPS*, Gould; Moore, P. Z. S. 1855, p. 215.

Pekin. "Resident in the Pekin mountains and in Mongolia" (*David*).

410. *EMBERIZA PUSILLA*, Pall. It. iii. p. 697; Ibis, 1860, p. 61, 1861, p. 334; P. Z. S. 1863, p. 301.

North China; spreads south in winter.

411. *SCHÆNICOLA PALLASII*, Cab.

*Emberiza schæniclus*, var. *minor*, Midd. Sib. Reis. Vög. p. 144.

*Emberiza canescens*, Swinh. Ibis, 1860, p. 62, 1861, p. 334; P. Z. S. 1863, p. 301.

Amoy in winter. River Yangtsze.

412. *PLECTROPHANES NIVALIS* (L.); P. Z. S. 1863, p. 301.

North China in the coldest seasons.

413. *PLECTROPHANES LAPPONICUS* (L.); Ibis, 1861, p. 334; P. Z. S. 1863, p. 301.

Common at Pekin in winter.

414. *ALAUDA ARVENSIS*, L.; Ibis, 1863, p. 94; P. Z. S. 1863, p. 271.

*Alauda pekinensis*, P. Z. S. 1863, p. 89.

*Alauda japonica*, Ibis, 1861, p. 333.

"Arrives in Pekin and leaves again in April; some individuals spend the summer in our plains. The Skylark, though known here and at Senen-hwa-foo, is not known in high Mongolia, where it is replaced by *Otocoris* and *Calandrella*" (*David*).

415. *ALAUDA CANTARELLA*, Bp.; P. Z. S. 1863, p. 271.

*Alauda intermedia*, Swinh. P. Z. S. 1863, p. 89.

Shanghai.

416. *ALAUDA CÆLIVOX*, Swinh. Zoologist, 1859, p. 6723; Ibis, 1860, p. 62, et pp. 132, 429, 1861, p. 46, 1867, p. 227, 1870, p. 354; P. Z. S. 1863, pp. 89, 272.

Amoy; Canton; Hainan.

417. *ALAUDA SALA*, Swinh. Ibis, 1870, p. 354.

*Alauda cælivox* (in part), Ibis, 1863, p. 377.

North Formosa; West Hainan.

418. *ALAUDA WATTERSI*, n. sp.

*Alauda cælivox* (in part), Ibis, 1863, p. 377.

Distinguishable from *A. cælivox* by its shorter and more conical bill, by its long hind claw, by its large and more numerous pectoral spots, and by its want of rufescence. By its long hind claw and markings it comes nearer to *A. sala*; but the long curved bill of



the latter serves at once to separate it. It is the Skylark of South Formosa and the Pescadores.

419. *GALERIDA CRISTATA* (L.).

*Galerida leautungensis*, Swinh. ; P. Z. S. 1863, p. 272, 1870, p. 433.

*Alauda leautungensis*, Ibis, 1861, p. 256, 1863, p. 87.

Talienwan and Pekin valleys.

"Resident and common at the feet of our mountains and in Mongolia" (*David*).

420. *ALAUDULA CHELEËNSIS*, n. sp.

*Alauda brachydactyla*, Swinh. ; Ibis, 1861, pp. 255, 333.

*Calandrella piscoletta*, P. Z. S. 1863, p. 271.

Differs from *A. piscoletta*, from the banks of the Volga, in being smaller in all its proportions, in having a more pyrrhuline bill, in its more rufescent plumage, and in having its outer tail-feathers almost entirely white.

Talien Bay. "Not rare at Pekin, but particularly abundant in Mongolia" (*David*).

421. *CALANDRELLA BRACHYDACTYLA* (Leisl.)?

A short-toed Lark with unspotted breast has been received at the Paris Museum from Moupin, which looks like the Indian bird. The second species at Pekin mentioned by Père David in his Catalogue may also possibly be this species.

422. *MELANOCORYPHA MONGOLICA* (Pall.); Ibis, 1861, p. 333, 1867, p. 232; P. Z. S. 1863, p. 271.

Pekin plains in winter; very common in Mongolia (*David*).

423. *OTOCORYS ALPESTRIS* (L.).

The Alpine Lark with the yellow throat only comes to the northern parts of the Chelee Province during the great cold (*David*). It has been sent from Trans-Baikal.

424. *OTOCORYS SIBIRICA*, Eversm.

*Otocoris alpestris*, Swinh. P. Z. S. 1863, p. 272.

*Otocoris penicillata*, Ibis, 1863, p. 95; P. Z. S. 1862, p. 318.

Differs from the last in having a white face, and in being of a paler rosier hue above. "Sedentary and very abundant in the high regions of Mongolia, whence it descends to Pekin in small numbers. This pretty Lark loves the neighbourhood of Mongol tents in winter; but deserts them in the warm season. It rests on the bare hills, and sings more melodiously than even the Skylark." (*David*).

425. *PALÆORNIS LATHAMI*, Finsch, Papageien, ii. p. 66.

*Palæornis* — ? , Ibis, 1867, p. 389.

*Palæornis javanicus*, Ibis, 1870, p. 93.

Hainan.



426. *PALÆORNIS ROSA* (Bodd.); Ibis, 1861, p. 411; P. Z. S. 1863, p. 259.

Canton. Our bird agrees with Burmese examples, and differs from the allied *P. cyanocephalus*, L. (*Ps. bengalensis*, Brisson), of Bengal. The latter can easily be distinguished by the long white tips to its central tail-feathers, by its brighter-coloured head, its verditer-green nape, and yellow back and underparts.

427. *PALÆORNIS LONGICAUDA* (Bodd.).

Birds of this species are sold at Canton, and said to come from South-west China.

A fourth species, with a grey head (perhaps *P. schisticeps*, Hodgs.), is brought down the Upper Yangtze; but, as I lost my only specimen, I have not been able to determine it. It was about the size of *P. alexandri*, with smaller bill, general colour green with grey cheeks, black mandibles, and a black moustache-streak.

428. *LORICULUS PUNICULUS*, Bp.

Brought by Mr. Fortune from Canton.

429. *MEGALÆMA VIRENS* (Bodd.); Ibis, 1861, p. 411; P. Z. S. 1863, p. 269.

*Bucco grandis*, Gmel. S. N. i. p. 408.

Fokien and Canton provinces. Differs from the large Barbet of the Himalayas, with which it has long been confounded, and which I have lately separated as *M. marshallorum* (Ann. & Mag. Nat. Hist. 4th ser. vi. p. 348).

430. *MEGALÆMA NUCHALIS*, Gould, P. Z. S. 1862, p. 283; B. of As. pt. xvi.; Ibis, 1863, p. 387, 1865, p. 545, 1866, p. 296.

Formosa.

431. *MEGALÆMA FABER*, Swinh. Ibis, 1870, pl. 4, p. 96.

Hainan.

432. *PICUS MANDARINUS*, Gould, P. Z. S. 1863, pp. 88, 268; Ibis, 1870, p. 94.

*Picus major*?, Ibis, 1861, p. 46, 1863, p. 96; P. Z. S. 1862, p. 319.

*Picus cabanisi*, Ibis, 1861, pp. 267, 339.

Hainan to Peking and westwards to Szechuen. The white markings vary much in size and distribution, and the white feathers get stained to brown, but wash white again on the application of soap and water.

433. *PICUS MAJOROIDES*, Hodgs.; Gray's Zool. Misc. 1844, p. 85.

Sent by Père David from Moupin, together with a new species of the same type, and another new species allied to *Picoides tridactylus* (L.).



434. *PICUS INSULARIS*, Gould, P. Z. S. 1862, p. 283; B. of As. pl.; Ibis, 1863, p. 390.

Formosa.

435. *PICUS PERNYII*, J. Verreaux, Rev. et Mag. de Zool. 1867, p. 271.

"Nearly the size of *P. cathpharius*, Hodgs.; to be distinguished by the whitish which covers the neck, by the black line which, in reaching the breast, spreads on the belly, and above all by the red patch on the thorax, of which there is no trace in Hodgson's species."  
(J. Verreaux.)

Western China (*Perny* and *David*).

436. *YUNGIPICUS SCINTILLICEPS* (Swinh.).

*Picus scintilliceps*, Swinhoe, Ibis, 1863, p. 96; P. Z. S. 1863, p. 268.

*Picus canifrons*, Sundevall, Consp. Av. Picin. (1866), p. 26.

*Picus* —?, Ibis, 1861, p. 340.

Pekin.

437. *YUNGIPICUS KALEËNSIS* (Swinh.).

*Picus kaleënsis*, Swinh. Ibis, 1863, p. 390, 1866, pp. 134, 137, 1870, p. 95.

*Dendrotypes nesiotes*, Cab. & Heine, Mus. Hein. Heft ii. p. 49.

Formosa; Hainan; South China to Ningpo and westward to Ichang.

438. *HYPOPICUS POLIOPSIS*.

*Picus hyperythrus*, P. Z. S. 1862, p. 319.

*Picus hyperythrus*, var. *poliopsis*, Swinh. P. Z. S. 1863, p. 268.

*Picus poliopsis*, Swinh. P. Z. S. 1870, p. 440.

*Picus* —?, Ibis, 1861, p. 339, 1863, p. 96.

*Xylurgus subrufinus*, Cab. & Heine, Mus. Hein. v. p. 50.

Pekin.

439. *DRYOCOPUS MARTIUS* (L.); P. Z. S. 1870, p. 442.

Pekin.

440. *GECINUS CANUS* (Gmel.); Ibis, 1861, p. 338; P. Z. S. 1862, p. 319, 1863, p. 267.

Pekin.

441. *GECINUS GUERINI*, Malh. Pic. t. 80. 4, 5; P. Z. S. 1863, p. 268.

Along the Yangtze to Szechuen.

442. *GECINUS TANCOLA*, Gould, P. Z. S. 1862, p. 283, 1863, p. 268; B. of As. pl.; Ibis, 1863, p. 389.

*Gecin* —?, Ibis, 1861, p. 267.

Formosa; Fokien province.



443. MICROPTERNUS FOKIENSIS (Swinh.), P. Z. S. 1863, p. 267.

*Brachypternus bodius*, Ibis, 1861, pp. 267, 409.

*Brachypternus fokiensis*, P. Z. S. 1863, p. 87; Ibis, 1867, p. 63.  
Fokien province.

444. MICROPTERNUS HOLROYDI, Swinh. Ibis, 1870, p. 95.

Hainan.

445. YUNX JAPONICA, Bp. Consp. Av. p. 112.

*Yunx torquilla*, L.; Ibis, 1860, p. 62, 1861, p. 338, 1862, p. 260;  
P. Z. S. 1862, p. 319, 1863, p. 267.

Down the China coast in winter. Smaller than the European bird, but otherwise alike.

446. ZANCLOSTOMUS TRISTIS (Less.); Bélanger. Voy. t. i.; Ibis, 1870, p. 234.

*Melias tristis*, Less. Tr. d'Orn. 1831, p. 132.

Hainan.

447. CENTROPUS SINENSIS (Steph.); Ibis, 1861, p. 49.

*Centropus rufipennis* (Illig.); Ibis, 1870, p. 234; P. Z. S. 1863, p. 266.

*Polophilus sinensis*, Ibis, 1861, p. 267.

South China, northwards to Wanchow, and in Hainan. I can find no distinctive characters between the Chinese and Bengalese specimens; but birds from Siam have the back chestnut as well as the scapulars, = *C. eurycercus*, A. Hay. The Java bird is coloured like ours, but is of larger size, and has a much larger bill, = *C. rufipennis*, Illig. (*bubutus*, Horsf.).

448. CENTROPUS BENGALENSIS (Gmel.).

*Cuculus bengalensis*, Gmel. Syst. Nat. 1788, i. p. 412.

*Cuculus*, sp., Ibis, 1860, p. 359, 1861, p. 48.

*Cuculus dimidiatus*?, Ibis, 1860, p. 360.

*Cuculus viridis*, Ibis, 1863, p. 392, 1870, p. 235; P. Z. S. 1863, p. 266.

South China, Hainan, and Formosa. Birds from the same locality extremely variable in size. Our birds agree with specimens from Bengal, Malacca, Java, and some of the isles. From Timor I have seen a larger species, the *C. moluccensis*, Bernst. (*medius*, G. R. Gr.), which by its similar immature plumage is connected with the present species, but in size almost approaches the foregoing. The second or streaked plumage of the *C. bengalensis* is peculiar for the enormous length of the upper tail-coverts, which nearly cover the surface of the tail to its end. In the first or nestling plumage, and in the adult or rufous-and-black plumage, these coverts are short. In this intermediate dress it is recognized as the *C. lepidus* of Horsfield.



449. *EUDYNAMIS MACULATA* (Gmel.).

*Cuculus maculatus*, Gmel. Syst. Nat. 1788, i. p. 415.

*Eudynamis orientalis*, Ibis, 1861, p. 46, 1866, p. 131, 1867, p. 59; P. Z. S. 1863, p. 264.

Summers and breeds about Canton; occurs occasionally as high as Amoy.

450. *EUDYNAMIS MALAYANA*, Cab. & Heine; Swinh. Ibis, 1870, p. 231.

Plentiful in Hainan.

451. *COCCYSTES COROMANDUS* (L.).

*Cuculus coromandus*, Linn. S. N. i. p. 171.

*Coccystes coromandus*, var. *fuliginiventer*, Ibis, 1867, p. 227.

Amoy. A specimen from Malacca has the abdomen nearly as dusky as the bird procured at Amoy.

452. *SURNICULUS DICRUROIDES* (Hodgs.).

*Pseudornis dicruroides*, Hodgs.; J. A. S. Beng. viii. 1839, p. 136.

Procured by me near Chungkingfoo, in Szechuen, in May.

453. *CACOMANTIS TENUIROSTRIS* (J. E. Gray), Ind. Zool. ii. 1833, t. 34, f. 1.

*Polyphasia tenuirostris*, Ibis, 1870, p. 230; P. Z. S. 1863, p. 266.

*Cuculus tenuirostris*, Swinh. Ibis, 1860, p. 62, 1861, p. 46.

Comes to South China to breed; occurred also in Hainan. Chinese specimens appear to agree with some procured in the neighbourhood of Calcutta; and Lord Walden identifies it with the Burmese species.

454. *CHRYSOCOCYX HODGSONI*, Moore, Cat. Birds Mus. E. I. C. ii. p. 705; Jerd. B. of Ind. i. p. 338.

*Lampromorpha plagosus*, Bp. Rev. et Mag. de Zool. (Mai 1867) pp. 169, 173.

Forwarded by Monseigneur Perny to the Paris Museum from Western China.

455. *CUCULUS SPARVEROIDES*, Vigors, P. Z. S. 1831, p. 173; Gould, C. of B. pl. 53; V. Schrenck, Amur-Land, i. p. 24, t. 10.

*Hierococcyx fugax*, Swinh. P. Z. S. 1863, p. 265.

Very common in spring in the hilly region of the Upper Yangtsze, as far west as Moupin. Has occurred also in Amoorland. A noisy bird, crying loudly from the tops of trees, often during the night. Its note resembles somewhat that of the Koel, for which it was mistaken by Capt. Blakiston's party on the Yangtsze. The Koel does not occur in that region.



456. *CUCULUS FLAVIVENTRIS*, Scop.; Sonn. Voy. t. 79.

*Cuculus hyperythrus*, Gould, B. of As. pt. viii.

Mr. Gould figures a bird said to have come from Shanghai; but the only bird that I can find in the British Museum answering to this description is labelled "Manilla." I included this species in my former catalogue (P. Z. S. 1863, p. 265) in the belief that I had an immature specimen of it from Shanghai; but this last I now find belongs to the following species. It is not, improbable, however, that this species may occur in China.

457. *CUCULUS MICROPTERUS*, Gould, P. Z. S. 1837, p. 137.

*Cuculus affinis*, A. Hay, J. A. S. B. xv. 18 (large variety).

*Cuculus michieanus*, Swinhoe, Ann. & Mag. Nat. Hist. vol. vi. 4th series, p. 153.

This very distinct species may at once be recognized by its brown back, wings, and tail, the latter with a broad black bar at the end, connecting the subgenus *Hierococcyx* with the true Cuckoos. It is almost divisible into two varieties, of larger and smaller form; but these do not differ in notes according to Jerdon, nor indeed are they constant in size. I found the species on the Upper Yangtze in company with the *C. sparveroides*, but not so common. Our birds are of the large form. They were very noisy, flying from tree to tree in an agitated manner, and uttering notes which are well syllabled in its Bengalese name, *Bou-kotáko*. I have an immature bird of the same from Shanghai, as noted under the foregoing species (P. Z. S. 1863, p. 265).

458. *CUCULUS CANORUS*, L.; Ibis, 1860, p. 62, 1863, p. 96; P. Z. S. 1862, p. 319, 1863, p. 264.

*Cuculus striatus*, Ibis, 1861, pp. 259, 340 (in part).

This bird occurs in the mountains of the south in spring, extending northwards to Peking. During its migration we meet with it on the plains. Its note is precisely that of the home bird, and I can detect no constant peculiar characters in its plumage to entitle it to separation from the European bird.

459. *CUCULUS POLIOCEPHALUS*, Lath. Hist. of B. iii. p. 181.

*Cuculus himalayanus*, Gould, Cent. pl. 54 (hepatic plumage); P. Z. S. 1863, p. 265.

*Cuculus tamsuicus*, Swinh. Ibis, 1865, p. 108.

A miniature of the last. I have specimens from Tamsuy (N.W. Formosa), Amoy, and Szechuen.

460. *CUCULUS STRIATUS*, Drapiez, Dict. Class. d'Hist. Nat.; Ibis, 1862, p. 263.

*Cuculus himalayanus*, Vig.; Jerd. B. of Ind. p. 323.

*Cuculus striatus*, Ibis, 1861, pp. 259, 340 (in part.).

*Cuculus tenuirostris*, Temm.



*Cuculus canoroides*, S. Müll.

*Cuculus optatus*, Gould.

*Cuculus canorus*, Ibis, 1863, p. 396.

*Cuculus monosyllabicus*, Swinh. Ibis, 1865, p. 545.

*Cuculus kelungensis*, Swinh. Ibis, 1863, p. 394.

I have a large series of this form of Cuckoo from Amoy, Formosa, and Pekin, and find them so variable in size, and in length and form of bill, that I give up in despair making species of them. From South Formosa I got a specimen with small bill and peculiar note; this I described as *C. monosyllabicus*; but it agrees with a specimen from Java labelled *C. tenuirostris*, Temm., sent me by Prof. Schlegel; and a series from Amoy and a bird from Pekin are also the same. From North Formosa I procured birds with large and long bills. These I described as *C. kelungensis*, and I have a specimen from Amoy with the same features (noted as *C. micropterus*, P. Z. S. 1863, p. 265); but they do not possess a single other character to distinguish them. From Amoy I have one with a particularly short and broad bill, but also with no other character; and a second with a thick curved bill, of large size, and with all the claws deep black. This last I determined as *C. canoroides* of S. Müller; but on glancing through my series I find many of the lesser and small-billed form, as also many of the long-billed form, with more or less black claws, in fact almost every gradation from pure yellow to black. I come therefore (I must confess, most reluctantly) to the conclusion that they all belong to the same variable species.

Like all the Cuckoos, these birds in China are only summer visitants.

461. *TRERON FORMOSÆ*, Swinh. Ibis, 1863, p. 396, 1865, p. 540, 1866, p. 312.

South Formosa.

462. *SPHENOCERCUS SORORIUS*, Swinh. Ibis, 1866, pp. 311, 406.

*Sphenocercus formosæ*, ♂, Ibis, 1866, p. 122.

*Treron chaeroboatis*, Ibis, 1866, pp. 313, 406.

South Formosa. Like *Treron sieboldii*, T. & S., of Japan, but yellower about the head, and with the green of the back, wings, and tail clearer and not washed with the brownish oil-colour of the other.

463. *OSMOTRERON DOMVILII*, Swinh. Ibis, 1870, p. 354.

Hainan.

464. *CARPOPHAGA SYLVATICA* (Tick.); Ibis, 1870, p. 355.

*Columba sylvatica*, Tickell, J. A. S. ii. p. 581.

Hainan.

465. *COLUMBA LIVIA*, Briss. Av. i. p. 82; P. Z. S. 1870, p. 444.

In a feral state about the Pekin plains.



466. *COLUMBA RUPESTRIS*, Bp. Consp. Av. ii. p. 48; P. Z. S. 1863, p. 306, 1870, p. 434.

*Columba ænas*, var. *rupestris*, Pall. Zoogr. t. 35.

*Columba leucozonura*, Swinh. Ibis, 1861, p. 259, 1863, p. 88.  
North China.

467. *DENDROTRERON HODGSONII* (Vig.); Bp. Ic. Pig. t. 61.

*Columba hodgsonii*, Vigors, P. Z. S. 1832, p. 16.

Sent from Moupin by Père David.

468. *PALUMBUS PULCHRICOLLIS* (Hodgs.); Gould, B. of As. pl.; Ibis, 1866, pp. 313, 396.

*Columba pulchricollis*, Hodgs. J. A. S. xiv. p. 866.  
Formosa.

469. *COCCYZURA MINOR*.

*Macropygia tusalia*, var. *minor*, Swinh. Ibis, 1870, p. 355.  
Hainan.

470. *TURTUR RUPICOLA* (Pall.); Ibis, 1863, p. 397, 1865, p. 541, 1866, p. 313, 1867, p. 396, 1870, p. 356; P. Z. S. 1863, p. 306.

*Turtur orientalis* (Lath.); Ibis, 1860, p. 63, 1861, pp. 49, 341.

*Turtur gelastes*, T. & S. F. J.; Ibis, 1862, p. 261; P. Z. S. 1870, p. 446.

South China, Formosa, and Hainan in winter. Differs considerably from *T. meena*, Sykes, of India.

471. *TURTUR CHINENSIS* (Scop.); Ibis, 1860, p. 62, 1861, p. 49, 1862, p. 261, 1863, p. 397, 1865, p. 540, 1870, p. 356; P. Z. S. 1863, p. 306.

South China; Hainan; Formosa.

472. *TURTUR RISORIUS*, L.; Pl. Enl. 244; P. Z. S. 1870, p. 446.

*Turtur risorius* (albino), Ibis, 1865, p. 541, 1866, p. 298.

About the trees of villages near the Great Wall, but not at Peking itself.

473. *TURTUR HUMILIS*, Temm. Pl. Col. 258, 259; Ibis, 1860, p. 63, 1862, p. 261, 1863, p. 397, 1865, p. 540, 1870, p. 356; P. Z. S. 1863, p. 306.

South China to Shanghai; Formosa; Hainan.

474. *CHALCOPHAPS INDICA* (L.); Ibis, 1870, p. 356.

Hainan.

475. *CHALCOPHAPS FORMOSANA*, Swinh. Ibis, 1865, pp. 357, 540.

Formosa, south of Takow.



476. *SYRRHAPTES PARADOXUS* (Pall. It. t. 5); Ibis, 1861, p. 341; P. Z. S. 1863, p. 306.

Breeds in Mongolia, roaming to the Pekin plains in winter (*David*).

477. *PAVO MUTICUS*, L.; Ibis, 1870, p. 359, note.

South-west China.

478. *POLYPLECTRON BICALCARATUM* (L.).

*Polyplectron chinquis*, P. Z. S. 1863, p. 307.

South-west China.

479. *PHASIANUS TORQUATUS* (Gmel.); Ibis, 1861, pp. 49, 341, 1862, p. 259, 1865, p. 349, 1867, pp. 232, 390, 402; P. Z. S. 1863, p. 307.

Canton to Pekin, and westwards to Hankow.

480. *PHASIANUS FORMOSANUS*, Elliot, P. Z. S. 1870, p. 406.

*Phasianus torquatus*, Swinh. Ibis, 1863, p. 401, 1866, p. 404. Formosa.

481. *PHASIANUS DECOLLATUS*, Swinh. P. Z. S. 1870, p. 135.

Province of Szechuen.

482. *PHASIANUS SLADENI*, Anderson, MS.; Elliot, P. Z. S. 1870, p. 408.

*Phasianus elegans*, Elliot, Ann. & Mag. Nat. Hist. 4th series, vi. p. 312.

Brought down the Upper Yangtze, probably from Kwirchow province, and now alive in the Society's Gardens. Procured by Dr. Anderson in Momien, province Yunnan. There is a specimen apparently of this species in the British Museum, which was received many years ago from this Society, and was at the time supposed to be a cross between *P. colchicus* and *P. versicolor* of Japan.

483. *SYRMATICUS REEVESII* (Gray), Ind. Zool. pl. 39.

*Phasianus reevesii*, P. Z. S. 1863, p. 307.

Eastern Szechuen, Western Hoopih, and northwards to near Pekin.

484. *CHRYSOLOPHUS PICTUS* (Linn.).

*Thaumalea picta* (L.); P. Z. S. 1863, p. 307.

Western China into Kokonor.

485. *CHRYSOLOPHUS AMHERSTIÆ* (Leadb.).

*Thaumalea amherstiae*, Leadb. Linn. Tr. xvi. pl. 15; Swinh. P. Z. S. 1863, p. 307, 1870, p. 111.

Moupin; Western Yunnan (*Dr. Anderson*).



486. *PUCRASIA XANTHOSPILA*, G. R. Gr. P. Z. S. 1864, p. 159, pl. 20.

*Pucrasia davidiana*, M.-Edwards, N. Arch. du Mus. i. t. 1, 2, 3. North-west China.

487. *CROSSOPTILON AURITUM* (Pall.).

*Phasianus auritus*, Pall. Zoogr. ii. p. 86.

*Crossoptilon cærulescens*, David, MS.; M.-Edw. C. R. 1870, p. 538.

Kokonor (*David*).

488. *CROSSOPTILON MANTCHURICUM*, Swinh. P. Z. S. 1862, p. 287, 1863, p. 306; Ibis, 1865, p. 112.

North China into Mantchuria.

489. *CROSSOPTILON DROUYNII*, Milne-Edwards, N. Arch. du Mus. iv. (1868), Bull. p. 85, pl. 3.

*Crossoptilon tibetanum*, Hodgs.?

Sent from Moupin by Père David.

490. *EUPLOCAMUS NYCTHEMERUS* (L.).

South China.

491. *EUPLOCAMUS SWINHOII*, Gould, P. Z. S. 1862, p. 284; B. of As. pl.; Ibis, 1863, p. 401, 1865, pp. 353, 538, 1866, pp. 133, 308, 404, 405, 1867, pp. 232, 409.

Formosa.

492. *LOPHOPHORUS L'HUYSI*, J. Verr. Bull. Soc. d'Acclimat. 2de sér. iv. (1867) p. 706; Selater, P. Z. S. 1868, p. 1, pl. 1.

Moupin.

493. *GALLUS FERRUGINEUS* (Gmel.); Ibis, 1870, p. 357.

*Phasianus gallus*, L.; Ibis, 1867, p. 233.

Hainan.

494. *TETRAOPHASIS OBSCURUS*, Elliot, Mon. Phas. pt. iii.

*Lophophorus obscurus*, J. Verr. N. Arch. du Mus. 1869, Bull. p. 33, pl. 6.

Moupin (*David*).

495. *CERIORNIS TEMMINCKII* (Gray); Swinh. P. Z. S. 1863, p. 307.

West China.

496. *CERIORNIS CABOTII*, Gould, P. Z. S. 1857, p. 161; B. of As. pl.; Ibis, 1865, p. 350; P. Z. S. 1863, p. 307.

South-west China.



497. *ITHAGINIS GEOFFROYI*, J. Verr. Bull. Soc. d'Acclimat. 2de série, iv. (1867) p. 706.

Moupin (*David*).

498. *FRANCOLINUS SINENSIS* (Osborn); Ibis, 1870, p. 359; P. Z. S. 1863, p. 307.

*Francolinus perlatus* (Gmel.); Ibis, 1860, p. 63, 1861, p. 50, 1862, p. 259, 1867, p. 406.

*Francolinus maculatus*, Gray, Zool. Misc. p. 2.

South China, Canton to Amoy; Hainan.

499. *PERDIX BARBATA*, Verr. et Des Murs, P. Z. S. 1863, p. 62, pl. 9. pp. 307, 370.

Very common in Mongolia; rarer on the bare mountains near Peking; never on the plain (*David*).

500. *OREOPERDIX CRUDIGULARIS*, Swinh. Ibis, 1864, pp. 426, 426, 1865, p. 542, 1866, pp. 133, 134, 401.

Formosa.

501. *BAMBUSICOLA THORACICA* (Temm.); P. Z. S. 1863, p. 307.

*Perdix sphenura*, Gray, Zool. Misc. p. 2.

*Arboricola bambusæ*, Ibis, 1862, p. 259.

Fokien province to south bank of Yangtze.

502. *BAMBUSICOLA SONORIVOX*, Gould, P. Z. S. 1862, p. 285; B. of As. pl.; Ibis, 1863, p. 399, 1865, p. 542, 1866, pp. 134, 401, 404.

Formosa.

503. *BAMBUSICOLA FYTCHII*, Anderson, P. Z. S. 1871, *antea*, p. 214, Pl. XI.

Procured by Dr. Anderson at Ponsee (Yunnan province).

504. *CACCABIS CHUKAR*, var. *PUBESCENS*, Ibis, 1865, pp. 353, 542, 1867, p. 402; P. Z. S. 1870, p. 439.

*Perdix chukar*, Gray, Hardw. Ill. Ind. Zool. i. pl. 54.

North China, southwards to north bank of Upper Yangtze, in the gorges. Chinese specimens have a deep blush of rosiness over their upper plumage, which is not seen in Himalayan skins.

505. *LERWA NIVICOLA* (Hodgs.).

Sent from Moupin by Père David.

506. *TETRASTES BONASIA* (L.).

Northern Chelee (*David*).

507. *TETRAO TETRIX*, L.

Northern Chelee (*David*).



508. *COTURNIX COMMUNIS*, Bonn. Ibis, 1863, p. 398; P. Z. S. 1863, p. 308.

*Coturnix chinensis* (L.), Ibis, 1860, p. 63.

*Coturnix dactylisonans*, Ibis, 1860, p. 358, 1861, pp. 50, 260, 341.

*Coturnix japonica*, Bp.

The Quails of North China that come south in winter have more or less rufous on their faces, and are more richly coloured than those that pass the summer with us; but the two races seem to blend into each other, and it is not easy to draw a line of distinction between them.

509. *EXCALFACTORIA CHINENSIS* (L.); Ibis, 1863, p. 398, 1870, p. 360; P. Z. S. 1863, p. 308.

*Coturnix chinensis* (L.); Ibis, 1861, p. 50.

*Coturnix caineana*, ♀, Swinh. Ibis, 1865, p. 351.

South China, Formosa, and Hainan.

510. *TURNIX DUSSUMIERI*.

*Hemipodius dussumieri*, Temm. Pl. Col. (1838) pl. 454. f. 2; Gould, B. of As. pt. xxi.

*Turnix sykesi*, A. Smith, Zool. of South Africa; Jerdon, B. of Ind. iii. p. 600.

In the winter 1868-69, when I was last in Formosa, I procured several females and one male of the little *Turnix* that abounds on the low grassy hills about fifteen miles from Takow. It had escaped me before, but its eggs I had got in abundance. This I cannot distinguish from the small Button-Quail of India. The females were bigger than the male, but of similar plumage. They both had deep-bluish bills, and the former bluish grey legs, the legs of the male being more flesh-coloured. This bird has not yet been met with in China.

511. *AREOTURNIX ROSTRATA*.

*Turnix rostrata*, Swinh. Ibis, 1865, pp. 542, 544, 1866, pp. 131, 297, 403, 1867, p. 230.

*Turnix ocellatus*, Ibis, 1863, p. 398.

Allied to *T. plumbipes*, Hodgs., *T. ocellata*, Jerdon (nec Scop.), but of a good deal larger size, with much more powerful bill and legs. Frequents the lowest hill-ranges of South Formosa, showing a preference for rocky places covered with scrub. The female is much larger than the male, and acquires a black throat in summer.

512. *AREOTURNIX BLAKISTONI*, n. sp.

*Turnix ocellata*, Ibis, 1866, p. 131; P. Z. S. 1863, p. 308.

A male specimen of the *T. ocellata* group was procured by Capt. Blakiston at Canton, and kindly given to me. This differs too much from the last for me to consider it of the same species. Its nearest ally is the *T. pugnax*, Temm., of Malacca, but it is smaller, shorter-toed, and possesses a remarkably small bill. Instead of spots



it has numerous bands across the breast ; and its upper parts are very rufous. I propose to separate it under the name of its discoverer.

513. *HEMIPODIUS VICIARIUS*, n. sp.

*Turnix jondera*, Hodgs. ? ; Swinh. Ibis, 1861, p. 50.

*Turnix dussumieri*, Ibis, 1861, p. 341.

*Turnix maculosa*, Ibis, 1866, p. 131 ; P. Z. S. 1863, p. 308, 1870, p. 442.

The Indian species of this group is the *Turnix jondera*, Hodgs., figured in Gray and Mitchell's 'Genera of Birds' (*T. dussumieri*, Jerd. B. of India, iii. p. 599) ; and a similar but larger bird is found in Burmah (*T. blanfordi*, Blyth, J. A. S. B. 1863, p. 80). The latter from its size (wing 4 inches) seems to answer to the original *Hemipodius maculosus*, Temm. Pig. et Gall. iii. p. 631, 1815 (*maculatus*, Vieill. Gal. des Ois. 1834, iv. p. 51, pl. 217), the locality of which is doubtfully given as New Holland. Our bird, which ranges from Canton to Peking, differs from these in wanting the red collar and the median stripe on the crown. The feathers on the crown are black margined with reddish brown, the breast is bright buff ; the feathers of the back and rump are blotched and finely waved with black, and most of them have long ochreous spots on their margins. It is about the size of *T. blanfordi*, and in general plumage pretty similar. Irides white. Upper mandible brown ; lower mandible and legs ochreous yellow. The females are rather larger than the males, but do not seem to differ in plumage. The gizzard of a female was large and heart-shaped ; cæca long and bulging ; its trachea swollen above the junction with the bronchi.

514. *OTIS TARDA*, L. ; P. Z. S. 1863, p. 308.

"Tungusis Dauriæ *Todok*," Pallas, Zoogr. ii. p. 97.

Shanghai and Hankow in winter. "Peking in winter" (*David*).

I have a female specimen from Shanghai, which is smaller than the ordinary European bird, and more broadly banded with black on the upper parts.

Père David speaks of a smaller Bustard, called by the Chinese at Peking "*Kepoo*." He saw a flock of them in Mongolia (Catalogue des Oiseaux à Pékin).

515. *GRUS CINEREA*, Bechst. ; Ibis, 1861, p. 409, 1870, p. 362 ; P. Z. S. 1863, p. 308 ; Zoologist, 1861, p. 7507.

South China in winter. Passes over the Peking plain in September and April ; commoner towards Mongolia (*David*).

516. *GRUS MONACHUS*, Temm. ; Ibis, 1867, p. 413 ; P. Z. S. 1863, p. 309.

Shanghai market in winter.

517. *GRUS LEUCAUCHEN*, Temm.

Passes in small numbers along the mountains of Seu-en-hwa-foo (*David*).



518. *GRUS VIRIDIROSTRIS*, Vieill.; P. Z. S. 1863, p. 309, 1870, p. 428.

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

Brought to market for sale at Shanghai and at Pekin.

519. *GRUS LEUCOGERANUS*, Pall.

Breeds in the province of Leantung (*David*).

520. *GRUS VIRGO*, L.; Ibis, 1867, p. 413.

Abundant in spring and autumn at Seu-en-hwa-foo. Breeds in Mongolia (*David*).

521. *GLAREOLA ORIENTALIS*, Lath.; Ibis, 1861, p. 342, 1863, p. 404; P. Z. S. 1863, p. 309.

Tientsin; Formosa.

522. *VANELLUS CRISTATUS*, Mey. & Wolf; Ibis, 1861, p. 342, 1865, p. 349, 1867, p. 399; P. Z. S. 1863, p. 309.

Wanders down as far south as Canton and into Formosa in winter. Breeds in Mongolia (*David*).

523. *CHETTUSIA CINEREA*.

*Lobivanellus cinereus*, Blyth, P. Z. S. 1863, p. 309.

*Lobivanellus inornatus*, Schleg. F. J.; Ibis, 1860, p. 359.

From the banks of the Yangtze to Pekin. Mongolia (*David*).

524. *HOPLOPTERUS VENTRALIS* (Cuv.); Ibis, 1870, p. 361.

Hainan.

525. *SQUATAROLA HELVETICA* (L.); Ibis, 1860, p. 63, 1861, pp. 51, 342, 1863, p. 404, 1870, p. 360; P. Z. S. 1863, p. 309.

Down the coast in winter.

526. *CHARADRIUS FULVUS*, Gm.

*Charadrius longipes*, Temm.; Ibis, 1863, p. 404, 1870, p. 360; P. Z. S. 1862, p. 319, 1863, p. 309.

*Charadrius virginicus*, Ibis, 1860, p. 358, 1861, pp. 51, 342, 1862, p. 254.

*Charadrius pluvialis*, Ibis, 1862, p. 307.

Throughout China and Formosa; Hainan.

527. *EUDROMIAS VEREDUS* (Gould).

*Ægialites veredus*, P. Z. S. 1870, pp. 141, 430.

*Charadrius veredus*, Gould, P. Z. S. 1848, p. 38.

Shanghai and Australia (*Gould*); Macassar (*Wallace*). Procured at Pekin by Père David.



528. *ÆGIALITES GEOFFROYI* (Wagler); Ibis, 1861, p. 51, 1863, p. 405, 1870, p. 360; P. Z. S. 1870, p. 141.

*Ægialites leschenaultii*, Ibis, 1861, p. 342, 1862, p. 255; P. Z. S. 1863, p. 309.

China coast in winter; Formosa.

529. *ÆGIALITES MONGOLUS* (Pall.); Swinh. P. Z. S. 1870, p. 140.

*Ægialites mongolicus*, Swinh. Ibis, 1870, p. 360; P. Z. S. 1863, p. 310.

*Hiaticula inornata*, Gould, B. of Austr. vi. pl. 19.

China coast in winter.

530. *ÆGIALITES HARTINGI*, Swinh. P. Z. S. 1870, p. 136, pl. 12.

Flats of the Upper Yangtze (Szechuen) in spring.

531. *ÆGIALITES CANTIANUS* (Lath.); Ibis, 1860, p. 63, 1861, pp. 51, 342; P. Z. S. 1863, p. 310, 1870, p. 138.

China coast in winter.

532. *ÆGIALITES DEALBATUS*, Swinh. P. Z. S. 1870, p. 138; Ibis, 1870, p. 361.

*Ægialites cantianus*, Ibis, 1860, p. 429, 1863, p. 405.

Resident on the coasts of South China and Formosa.

533. *ÆGIALITES HIATICULA* (L.)?

*Charadrius longipes*, David, Nouv. Arch. 1867, Bull. p. 38.

"Close to *C. hiaticula*, but with longer legs; I obtained a single specimen of this in winter at Pekin" (David).

534. *ÆGIALITES DUBIUS* (Scop.).

*Ægialites philippinus*, Ibis, 1862, p. 255, 1863, p. 406; P. Z. S. 1863, p. 310.

*Ægialites curonicus*, P. Z. S. 1870, p. 137.

*Ægialites intermedius*, Ibis, 1870, p. 361.

*Ægialites pusillus*, Ibis, 1860, p. 63, 1861, p. 51.

*Charadrius philippinus*, Ibis, 1861, pp. 260, 342.

Throughout South China, Formosa, and Hainan in winter; breeds in North China (Talien Bay). Chinese birds agree with the European. The race found in Bengal is smaller, and is probably the *Æ. minutus* (Pall.). *Æ. intermedius* (Ménétriés) appears to be a lesser form of *Æ. hiaticula* (L.) with more slender bill, which sometimes occurs in England, and is considered by many to be merely the latter species not fully developed. *Æ. pusillus* (Horsf.) of Java and *Æ. philippinus* (Lath.) of Luzon I take to be the same as our bird; as being only winter visitants to the archipelago, they would naturally be the species that passes our coast in spring and autumn.



535. *HÆMATOPUS OSCULANS*, n. sp.

*Hæmatopus ostralegus*, Swinh. Ibis, 1860, p. 63, 1861, pp. 261, 342.

*Hæmatopus longirostris*, Swinh. Ibis, 1863, p. 406; P. Z. S. 1863, p. 310.

On drawing up my last list and on finding our bird to be different from the European species, I set it down as *H. longirostris*, Gray, without, however, comparing specimens. Prof. Schlegel (Mus. des Pays-Bas) draws attention to my mistake, but identifies the bird with *H. ostralegus*. On careful comparison I find it intermediate. It has white on its primary quills, but not to such an extent as in *H. ostralegus*; and it has the long bill and black tips to its white upper tail-coverts as in *H. longirostris*, but the tip-spots are smaller. Thus holding an intermediate position between the two, it is impossible to class it with either species, and I would propose to separate it as above.

*Characters*.—First three rectrices with black shafts, the fourth showing a little white, which increases and expands on the quills that follow (in *H. ostralegus* the white commences on the first quill, and in *H. longirostris* the shafts are all black). The upper tail-coverts that overlap the tail tipped with black (pure white in *H. ostralegus*). Bill, from the forehead, 3.6 inches. These characters are taken from an adult male shot in Talien Bay in July. An immature bird shot in November at Swatow shows the same long bill, small extent of white on the wing, and dark tips to the extreme uropygials, but its dark parts are brown instead of black. Neither specimen has the white collar. This Oyster-catcher breeds in North China (Talien Bay), and wanders down the coast in winter as far, at least, as Swatow.

536. *RECURVIROSTRA AVOCETTA*, L.; Ibis, 1860, p. 66, 1861, p. 343, 1863, p. 406; Zoologist, 1860, p. 7103; P. Z. S. 1863, p. 311.

*Recurvirostra sinensis*, Ibis, 1867, p. 401.

China coast in winter. "Is found in May at Ordo near the Yellow River" (*David*).

537. *HIMANTOPUS CANDIDUS*, Bonnaterre; L.

*Himantopus melanopterus*, Temm.

One seen at Pekin by Père David (Catalogue).

538. *TOTANUS GLOTTIS*, L.; Ibis, 1863, p. 406, 1870, 364; P. Z. S. 1863, p. 311.

*Totanus glottoides*, Vig.; Ibis, 1860, p. 66, 1861, p. 343.

*Totanus glottis*, Ibis, 1862, p. 254.

General in winter.

539. *TOTANUS STAGNATILIS*, Bechst.; Ibis, 1862, p. 254, 1863, p. 406, 1870, p. 364; P. Z. S. 1863, p. 311.

Formosa; Amoy; Hainan.



540. *TOTANUS FUSCUS*, L. ; Ibis, 1862, p. 254, 1863, p. 97 ; P. Z. S. 1862, p. 319, 1863, p. 311, 1870, 427.

Canton ; Tientsin ; Shanghai.

541. *TOTANUS CALIDRIS*, L. ; Ibis, 1861, p. 343, 1862, p. 254, 1863, p. 407, 1865, 347, 1870, p. 364 ; P. Z. S. 1862, p. 320, 1863, p. 311.

*Totanus fuscus*, Ibis, 1866, p. 295.

General in winter.

542. *TOTANUS GLAREOLA*, L. ; Ibis, 1860, p. 66, 1861, p. 343, 1863, p. 407, 1870, p. 363 ; P. Z. S. 1863, p. 311.

*Totanus affinis*, Horsf. ; Ibis, 1866, p. 294 ; P. Z. S. 1863, p. 311.

Hurries past in early autumn, and returns late in spring.

543. *TOTANUS OCHROPUS*, L. ; Ibis, 1860, p. 66, 1861, p. 343, 1862, p. 254, 1863, p. 407, 1870, p. 363 ; P. Z. S. 1863, p. 312.

Throughout China and Formosa.

544. *TOTANUS INCANUS*, Vieill. N. D. d'H. N. vi. p. 400.

*Totanus brevipes*, Vieill. l. c. p. 410 ; Ibis, 1863, p. 407, 1867, p. 390 ; P. Z. S. 1863, p. 312.

*Totanus pulverulentus*, M. & S. ; Ibis, 1860, pp. 132, 359, 1861, p. 343, 1862, p. 254.

Chinese and Formosan coasts in winter.

545. *TRINGOIDES HYPOLEUCUS* (L.) ; Ibis, 1860, p. 66, 1861, p. 343, 1862, p. 259, 1863, p. 408, 1870, p. 363 ; P. Z. S. 1863, p. 312.

Throughout China, Formosa, and Hainan.

546. *TEREKIA CINEREA* (Gmel.) ; Ibis, 1863, p. 97 ; P. Z. S. 1863, p. 312.

*Terekia javanica*, P. Z. S. 1862, p. 319.

Tientsin (*Fleming*).

547. *LIMOSA UROPYGIALIS*, Gould ; Ibis, 1863, p. 409, 1870, p. 362 ; P. Z. S. 1863, p. 312.

*Limosa lapponica seu rufa*, Ibis, 1861, p. 410, 1863, p. 97, 1867, p. 388.

Amoy, Formosa, and Hainan, in winter. Breeds in Amoorland and Alaska ; wanders during our cold season to the Malay archipelago, Australia, and New Zealand.

548. *LIMOSA BREVIPES*, G. R. Gray, Brit. Mus. Cat. *Grallæ*, p. 95.

*Limosa melanuroides*, Gould.

*Limosa melanura*, Ibis, 1868, p. 58 ; P. Z. S. 1863, p. 313.

One specimen procured at Amoy on the 30th of April, 1867, in



partial summer plumage. Probably breeds in Amoorland, if not in Japan also, ranging in winter to Borneo, the Moluccas, Australia, and New Zealand. The European *L. ægocephala* (L.) is the winter species in India.

549. *PSEUDOSCOLOPAX SEMIPALMATUS*, Jerdon, P. Z. S. 1863, p. 313.

*Micropalama tacsanowskia*, J. Verr.

Teintsin; Hankow; Trans-Baikal (*J. Verreaux*); India (*Blyth and Jerdon*); Borneo (*Schlegel*).

550. *SCOLOPAX RUSTICULA*, L.; Ibis, 1860, p. 66, 1861, pp. 56, 343, 1863, p. 415; P. Z. S. 1863, p. 313.

Throughout China in winter.

551. *GALLINAGO SOLITARIA*, Hodgs. J. A. S. vi. p. 491; P. Z. S. 1863, p. 313.

Pekin (*David*). Specimens from South China, previously referred to this, belong to the following species.

552. *GALLINAGO MEGALA*, Swinh. Ibis, 1861, p. 343, 1862, p. 255, 1863, p. 415, 1865, p. 232; P. Z. S. 1863, p. 313.

*Gallinago solitaria*?, Ibis, 1860, pp. 66, 132, 359, 1864, p. 370, 1865, p. 355, 1866, pp. 134, 294, 1867, p. 233.

*Gallinago stenura*, Radde, Reise, Taf. xiii.

Throughout China and Formosa in seasons of migration. I have seen specimens from Lake Baikal.

553. *GALLINAGO HORSFIELDI* (Gray); Zool. Misc. p. 2.

*Gallinago stenura* (Bp.); Ibis, 1860, p. 66, 1861, pp. 56, 343, 1862, p. 259, 1863, p. 415, 1865, p. 232, 1867, p. 234, 1870, p. 362; P. Z. S. 1863, p. 314.

*Gallinago biclava*, Hodgs.

*Gallinago heterocerca*, Cab.

Throughout China, Hainan, and Formosa in winter. Probably goes north to breed; specimens have been sent from Lake Baikal.

554. *GALLINAGO SCOLOPACINA*, Bp.; Ibis, 1863, p. 415, 1865, p. 347, 1867, p. 234, 1870, p. 362; P. Z. S. 1863, p. 314.

*Gallinago burka*, Swinh. Ibis, 1865, p. 231; P. Z. S. 1863, p. 314.

*Gallinago uniclava*, Hodgs.; Ibis, 1860, p. 66, 1861, pp. 56, 343, 1862, p. 259.

*Gallinago media*, Ibis, 1866, p. 294.

China, Formosa, and Hainan, in winter.

555. *LIMNOCRYPTES GALLINULA* (L.).

*Gallinago gallinula*, P. Z. S. 1863, p. 314.

I have never seen this bird in China. One specimen was pro-



cured by a sporting friend in Formosa, and he sent it to me as the only one he had ever met with in our part of the world.

556. *RHYNCHÆA BENGALENSIS* (L.); Ibis, 1865, pp. 230, 347, 1866, p. 137, 1870, p. 362; P. Z. S. 1863, p. 314.

*Rhynchæa sinensis*, Lath. Ibis, 1864, p. 370, 1867, p. 404.

*Rhynchæa orientalis*, Horsf.

*Rhynchops sinensis*, Ibis, 1861, p. 267.

Throughout China and Formosa in summer. I find that Painted Snipes from Africa have the chin bare, which is not the case with specimens from India and China. *R. capensis* (Gmel.) may therefore rank as a distinct species.

557. *CALIDRIS ARENARIA* (L.); Ibis, 1860, p. 359, 1861, p. 342, 1863, p. 414, 1870, p. 363; P. Z. S. 1863, p. 315.

General in winter.

558. *STREPSILAS INTERPRES* (L.); Ibis, 1860, p. 359, 1861, p. 342, 1862, p. 255, 1863, p. 414, 1870, p. 361; P. Z. S. 1863, p. 315; Zoologist, 1860, p. 7103.

559. *LOBIPES HYPERBOREUS* (L.); Ibis, 1861, p. 412, 1863, p. 415, 1865, p. 358, 1870, p. 363; P. Z. S. 1863, p. 315; Zoologist, 1861, p. 7643.

560. *TRINGA TENUIROSTRIS* (Horsf.); P. Z. S. 1863, p. 315.

*Totanus crassirostris*, T. & S. Faun. Jap. lxiv.

*Schœniclus magnus*, Gould, B. of Austr. vi. pl. 33.

561. *TRINGA CANUTUS*, L.; P. Z. S. 1863, p. 315.

Procured at Shanghai.

562. *TRINGA PLATYRHYNCHA*, Temm.; Ibis, 1862, p. 255, 1863, p. 412, 1870, p. 363; P. Z. S. 1863, p. 316.

*Limicola pygmæa*, Midd. Sib. Reise.

China and Formosa in winter. The *Tringa pygmæa* of Latham, as Prof. Newton has proved to me, is based on *T. subarquata*, and the name ought not to be applied to this species.

563. *TRINGA CINCLUS*, var. *CHINENSIS*.

*Tringa chinensis*, Gray, Zool. Misc. p. 2; Ibis, 1862, p. 255.

*Tringa cinclus*, Ibis, 1860, p. 66, 1861, p. 412, 1863, pp. 97, 411; P. Z. S. 1863, p. 316.

*Tringa subarquata*, Ibis, 1861, p. 342.

*Tringa alpina*, Ibis, 1866, p. 136, 1870, p. 363.

In length and thickness of bill surpassing *T. cinclus*, var. *americana*, Baird, with longer toes. In summer dress remarkable for the big black blotches on its breast, and for the blackness and want of rufescence of its upper parts.



Chinese and Formosan coasts in winter, coming early and retiring late.

564. *TRINGA ACUMINATA* (Horsf.); Ibis, 1863, p. 412; P. Z. S. 1863, p. 316.

*Tringa* — ? , Ibis, 1861, p. 342.

*Tringa pectoralis*, Ibis, 1863, p. 97.

Passes our coasts early, and returns late.

565. *TRINGA DAMACENSIS* (Horsf.); Ibis, 1863, p. 413; P. Z. S. 1863, p. 316.

*Tringa*, sp., Ibis, 1860, p. 359, 1861, p. 342.

*Tringa subminuta*, Midd. Sib. Reis. p. 222, t. xix. f. 6; Ibis, 1862, p. 255, 1863, p. 97.

Passes our coasts early and returns late.

566. *TRINGA SALINA*, Pall. It. iii. p. 700.

*Tringa ruficollis*, Lath. Av. v. p. 183.

*Tringa albescens*, Temm. Pl. Col. 41. fig. 2; Ibis, 1863, p. 413, 1870, p. 363; P. Z. S. 1863, p. 316.

*Tringa minuta*, Ibis, 1860, pp. 342, 358, 1862, p. 255.

The eastern representative of *T. minuta*. Passes the China coast early, and returns late, on its winter migration. All my specimens are of this race; but I have seen the true *T. minuta*, in summer plumage, from Lake Baikal. Mr. Gould reports its breeding in Australia (Hand-b. B. of Austr. ii. p. 258)!

567. *TRINGA SUBARCUATA*, L.; P. Z. S. 1862, p. 319, 1863, p. 317.

Procured in Amoy and Formosa, in partial summer dress, in the middle of May. Tientsin (*Fleming*).

568. *TRINGA TEMMINCKII*, Leisl.; Ibis, 1860, p. 66, 1861, p. 342, 1862, p. 255, 1863, p. 412; P. Z. S. 1863, p. 317.

Throughout China in winter.

569. *EURINORHYNCHUS PYGMÆUS* (L.).

*Eurinatorhynchus orientalis*, Blyth, Ibis, 1867, p. 234.

Procured once at Amoy.

570. *NUMENIUS MINUTUS*, Gould, P. Z. S. 1840, p. 176, 1863, p. 317.

*Numenius minor*, Müll. & Schleg. Verh. Nat. Gesch. p. 110; Ibis, 1861, p. 411, 1863, p. 409.

Amoy. Received also from Trans-Baikal, so that it probably goes south to India, and will be the *N. arcuatulus*, Hodgs., of Nepal. Schlegel has it from Amboina (Mus. des Pays-Bas), and Gould from New South Wales. It passes our coast early, and returns late. Mr. Gould met with the bird on the 4th April (Handb. B. Austr. ii.



p. 280). Leaving Australia a few days later, there is no reason why these birds should not pass by the Moluccas, and onwards along the China coast in time to nidificate in Amoorland in June.

571. *NUMENIUS PHÆOPUS* (L.); P. Z. S. 1863, p. 317.

Pekin to Shanghai in winter.

572. *NUMENIUS LUZONIENSIS* (Gmel.), Syst. Nat. 1788, i. p. 656.

*Numenius atricapillus*, Vieill.

*Numenius uropygialis*, Gould, P. Z. S. 1840, p. 175; Ibis, 1863, p. 409, 1866, p. 137.

Formosa; South China coast. Throughout the islands to Australia. Breeds in southern latitudes.

573. *NUMENIUS LINEATUS*, Cuv. Règn. An. 2nd ed. i. p. 52, note 2; Blyth, Ibis, 1867, p. 167.

*Numenius major*, T. & S. Faun. Jap. pl. lxvi.; Ibis, 1860, p. 66, 1863, p. 410, 1867, p. 391, 1870, p. 363; P. Z. S. 1863, p. 318.

*Numenius arcuatus*, T. & S. Faun. Jap.; Swinh. Ibis, 1863, p. 410; P. Z. S. 1863, p. 318.

*Numenius cassinii*, Swinh. Ibis, 1867, p. 398; P. Z. S. 1863, p. 317.

The long-billed *N. major* is the female, and the shorter-billed so-called *N. arcuatus* is the male; and *N. cassinii* is a small variety of the same species, at once distinguishable from *N. arcuatus* of Europe by its white unspotted axillaries. On the China coast the long-billed birds often associate with the short bills, and, as Prof. Schlegel observes (*Mus. des Pays-Bas*), are of similar plumage. I have examined a number of both, and in every case I have found the long-bills females and the short-bills males. I am therefore convinced that they are mere sexes of the same species. Prof. Schlegel points out the same birds occurring on the coast of South Africa, where they have been also set apart as distinct species. I have compared a specimen from South Africa, kindly given me by Mr. R. B. Sharpe; and it tallies completely with our male birds from China. It follows, then, that the winter Curlew of India will be the same, and that this migration is another instance of that exemplified in the case of *Erythropus amurensis*, Radde, of a North-east-Asian bird passing through India to Africa in winter.

It spreads down the Chinese and Formosan coasts, during the cold season, as far south as Hainan, extending, according to Schlegel (*Mus. des Pays-Bas*), to Borneo and Java.

574. *NUMENIUS TAHITIENSIS* (Gmel.); Swinh. P. Z. S. 1863, p. 318.

*Numenius cyanopus*, Vieill. 2nd ed. du Nouv. Dict. d'Hist. Nat. viii. p. 306.

*Numenius major*, Faun. Jap. (in part); Ibis, 1861, p. 343.

*Numenius australis*, Ibis, 1863, p. 97; P. Z. S. 1863, p. 318.



*Numenius rufescens*, Gould, P. Z. S. 1862, p. 286; B. of As. pl.; Ibis, 1863, p. 410 (summer); P. Z. S. 1863, p. 318.

Breeds in Amoorland; common near Pekin in August; found, during the season of migration, in Japan, Formosa, Moluccas, Australia, Tasmania, and the Society Islands. Not yet noticed on South-China coast.

575. *IBIDORHYNCHUS STRUTHERSI*, Vigors.

*Ardea* —?, Ibis, 1861, p. 344.

"Frequents the banks of the most solitary fish-containing streams of the mountains near Pekin, where it sometimes breeds" (*David*).

576. *IBIS PROPINQUA*, Swinh. P. Z. S. 1870, p. 428.

*Threskiornis melanocephalus*?, P. Z. S. 1863, p. 318.

Talienwan; Canton river.

577. *IBIS NIPPON*, T. & S. Faun. Jap.; Ibis, 1863, p. 416, 1867, p. 413, 1870, p. 365; P. Z. S. 1863, p. 318.

China coast in winter, as far south as Hainan.

578. *IBIS FALCINELLUS*, L.

Seen on the lakes between Shanghai and Ningpo.

579. *PLATALEA MAJOR*, Temm. & Schl.; Ibis, 1863, p. 417, 1864, pp. 364, 370; P. Z. S. 1863, p. 319.

*Platalea leucorodia*, Ibis, 1860, p. 65, 1861, p. 344.

Formosa; Swatow.

580. *TANTALUS LEUCOCEPHALUS*, Gmel. Syst. Nat. i. p. 649.

*Tantalus longimembris*, Swinh. Ibis, 1867, pp. 227, 232.

Procured at Amoy.

581. *LEPTOPTILUS JAVANICUS* (Horsf.); Ibis, 1870, p. 364.

Hainan.

582. *CICONIA ALBA*, Linn.; P. Z. S. 1863, p. 319.

Père David saw it on one occasion, in November, at Takoo, mouth of the Peiho river.

583. *CICONIA NIGRA*, Linn.; Ibis, 1866, p. 401; P. Z. S. 1863, p. 319.

"Inhabits, in small numbers, the mountains near Pekin that yield streams containing fish; nests on the most inaccessible rocks" (*David*).

584. *ARDEA CINEREA*, L.; Ibis, 1860, p. 63, 1861, pp. 51, 343, 1863, p. 417, 1870, p. 365; P. Z. S. 1863, p. 319.

Throughout China, Hainan, and Formosa.

585. *ARDEA PURPUREA*, L.; P. Z. S. 1863, p. 319.

Hankow (Central China).



## 586. EGRETTE MODESTA (Gray).

*Ardea modesta*, J. E. Gray, Zool. Misc. p. 19; Ill. Ind. Zool. pl. 49.

*Ardea syrmatorhynchos*, Gould, P. Z. S. 1846; B. of Austr. pl.

*Ardea egretta*?, Ibis, 1860, p. 64, 1861, p. 51.

*Herodias alba*, Ibis, 1863, p. 417, 1866, p. 295, 1867, p. 387, 1870, p. 365; P. Z. S. 1863, p. 319, 1870, p. 427.

Prof. Schlegel (Mus. des Pays-Bas) maintains that the *E. alba* of Europe is constantly of a larger form than the White Heron of Africa, Asia, and Australia; but he identifies the latter with the American White Heron, *A. egretta*, Gmel. (*leuce*, Illiger). I have compared an adult male from Canton with an adult male from America in Mr. Salvin's collection. The Chinese bird has a tarse  $\frac{5}{8}$  inch longer than the American, but is otherwise of nearly similar proportions; it has a more compressed head, a black bill, and a considerably longer dorsal train. Mr. Salvin says that he has never heard of the American bird acquiring a black bill, and agrees with me in considering it distinct from the East-Asian bird. With the African *E. flavirostris*, Temm., I have not been able to make comparison. The European *E. alba*, like our bird, has the bill yellow in winter, black in summer, and would appear to be a larger edition of the same, in fact a larger conspecific. In the same way the Californian White Heron seems to be a larger conspecific of the *E. leuce* of South-eastern North America. There is no harm in recognizing them as species. Throughout China, Hainan, and Formosa.

## 587. EGRETTE INTERMEDIA (V. Hasselq.).

*Herodias intermedia*, Ibis, 1861, p. 344; P. Z. S. 1863, p. 319, 1870, p. 427.

*Herodias egrettoidea*, Ibis, 1861, p. 261.

Bill yellow throughout the year, tipped with black. Canton; Hankow.

## 588. GARZETTA EGRETTE (Brisson).

*Herodias garzetta*, Ibis, 1860, pp. 64, 429, 1861, p. 52, 1862, p. 258, 1863, p. 417, 1870, p. 365; P. Z. S. 1863, p. 319, 1870, p. 427.

Southern China, Hainan, and Formosa.

## 589. GARZETTA EULOPHOTES.

*Herodias eulophotes*, Swinh. Ibis, 1860, p. 64, 1863, p. 418; P. Z. S. 1863, p. 320.

Amoy; North Formosa.

## 590. BUBULCUS COROMANDUS.

*Buphus coromandus* (Bodd.), Ibis, 1860, p. 64, 1861, p. 52, 1862, p. 258, 1863, p. 419, 1865, p. 234; P. Z. S. 1863, p. 320.

Summer visitant to South China and Formosa.



591. *BUTORIDES JAVANICUS* (Horsf.); Ibis, 1860, pp. 132, 358, 1861, p. 52; P. Z. S. 1863, p. 320.

*Herodias asha*, Ibis, 1860, p. 64.

Comes to South China in summer to breed.

592. *BUTORIDES MACRORHYNCHUS*, Gould.

*Butorides javanicus*, Ibis, 1863, p. 420.

A larger bird than the last in all its proportions, but otherwise very similar. Common in Formosa in summer. I procured a male at Amoy on the 26th Aug. 1866. It is the species that visits Japan (Schleg. Mus. des Pays-Bas).

593. *ARDEOLA PRASINOSCELES*, Swinh. Ibis, 1860, p. 64, 1861, p. 52, 1862, p. 258, 1863, p. 421 (errore), 1870, p. 365; P. Z. S. 1863, p. 319.

Resident in South China and westwards to Szechuen. Found as far south as Cochin China. In Siam and Malacca is replaced by the *A. malaccensis* (Gmel.), *A. bacchus*, Bp. I entered it in my Formosan list on insufficient evidence. It has not occurred on that island.

594. *NYCTIARDEA NYCTICORAX* (L.).

*Nycticorax griseus*, Ibis, 1860, p. 358, 1861, pp. 53, 56, 344, 1863, p. 423, 1866, p. 293, 1870, p. 365; P. Z. S. 1863, p. 320.

*Nycticorax manillensis*?, Ibis, 1860, p. 65.

Resident throughout China and Formosa.

595. *GOISACHIUS MELANOLOPHUS*.

*Ardea melanolopha*, Raffles, Linn. Trans. vol. xiii. part 2, p. 326.

*Ardea goisagi* (Temm.), Pl. Col. 582; Faun. Jap. pl. 75; Ibis, 1865, p. 358, 1866, pp. 122, 403.

*Nycticorax melanolophus*, P. Z. S. 1863, p. 320.

Formosa. Procured also from Japan, the Philippines, Sumatra, Arracan, and Ceylon.

596. *BOTAURUS STELLARIS*, L.; Ibis, 1861, p. 410; P. Z. S. 1863, p. 320.

Throughout China.

597. *ARDETTA FLAVICOLLIS* (Lath.); Ibis, 1862, p. 258, 1863, p. 422; P. Z. S. 1863, p. 320.

Foochow and Hankow. *Shanghai*.

598. *ARDETTA CINNAMOMEA* (Gmel.); Ibis, 1860, p. 65, 1861, p. 53; 1862, p. 258, 1863, p. 422; P. Z. S. 1863, p. 320.

Throughout China and Formosa in summer.



599. *ARDETTA SINENSIS* (Gmel.); Ibis, 1860, p. 65, 1861, p. 53, 1862, p. 258, 1863, pp. 97, 422, 1867, p. 231; P. Z. S. 1862, p. 320, 1863, p. 321.

China in summer. Rare in Formosa.

600. *PORPHYRIO CÆLESTIS*, Swinh. Ibis, 1868, p. 59; P. Z. S. 1870, p. 428.

*Porphyrio* sp.?, Ibis, 1866, p. 298.

Canton; Amoy.

601. *HYDROPHASIANUS CHIRURGUS* (Scop.); Ibis, 1865, p. 541, 1866, p. 405.

*Hydrophasianus sinensis*, P. Z. S. 1863, p. 321.

Hankow; Amoy coast; Formosa. I watched a party of three immature birds on a pool in South Formosa in January. They float lightly on the water, like Phalaropes, but with the tail partly cocked. They rise heavily, and fly with long slow flaps, looking like small white-winged Herons. They alight boldly on the water, and permit close approach. When sitting they look dark and unnoticeable; but the wings once expanded they become conspicuous white objects. Iris chestnut; bill and legs light sea-green.

602. *GALLICREX CRISTATA* (Lath.); Ibis, 1861, pp. 56, 267, 411, 1863, p. 425, 1866, p. 297; P. Z. S. 1863, p. 321.

South China; westward to Szechuen; Formosa.

603. *GALLINULA CHLOROPUS* (L.); Ibis, 1861, p. 56, 1862, p. 307, 1863, p. 427; P. Z. S. 1863, p. 321.

Throughout China and Formosa.

604. *GALLINULA PHÆNICURA* (Penn.); Ibis, 1863, p. 427, 1870, p. 364; P. Z. S. 1863, p. 321.

*Porzana phœnicura*, Ibis, 1860, p. 67, 1861, p. 57.

South China; Formosa.

605. *PORZANA ERYTHROTHORAX*, Temm. & Schl.; Swinh. Ibis, 1861, pp. 57, 411.

*Porzana fusca*, Ibis, 1863, p. 426; P. Z. S. 1863, p. 321.

Prof. Schlegel (Mus. des Pays-Bas) recognizes this as distinct from *P. fusca* of India. Though variable in size and length of wing, it has longer toes; and the pectoral red does not extend so low down on the belly as in *P. fusca*. It is a close *conspecies* of the Indian bird.

606. *PORZANA PYGMÆA* (Naumann); P. Z. S. 1863, p. 321.

*Gallinula bailloni*, Vieill.

*Porzana bailloni*, Ibis, 1863, p. 97, 1867, p. 389; P. Z. S. 1862, p. 320.

Throughout China in summer. It strikes me that Pallas's name



*minuta* must really apply to this bird, the Little Crake of Europe not being found so far eastwards as Dauria (*cf.* Pall. Zoogr. ii. p. 156).

607. RALLINA MANDARINA.

*Porzana mandarina*, Swinh. Ann. & Mag. N. H. vol. v. 4th series, p. 173; P. Z. S. 1870, p. 427.

Procured at Canton, in company with *P. erythrothorax*, by Mr. S. Bligh.

608. HYPOTÆNIDIA STRIATA.

*Rallus striatus*, L.; Ibis, 1863, p. 427, 1865, p. 234, 1866, p. 394; P. Z. S. 1863, p. 321.

Formosa; Canton (Schlegel, Mus. des Pays-Bas).

609. RALLUS INDICUS, Blyth, J. A. S. xviii. p. 820; Ibis, 1863, p. 97; P. Z. S. 1862, p. 320.

*Rallus aquaticus*, P. Z. S. 1863, p. 322.

The Asiatic representative of *R. aquaticus* of Europe, distinguishable by its dark facial streak from the base of the bill to beyond the eyes. Tientsin.

610. FULICA ATRA, L.; Ibis, 1861, p. 344, 1864, p. 370, 1865, p. 349, 1867, p. 397; P. Z. S. 1863, p. 322.

China; Formosa.

611. PODICEPS PHILIPPENSIS (Bonn.); Ibis, 1860, p. 67, 1870, p. 366.

*Podiceps minor* (Gmel.); Ibis, 1863, p. 433, 1865, p. 541; P. Z. S. 1863, p. 322.

*Podiceps philippinus*, Ibis, 1861, p. 343.

China; Formosa; Hainan.

612. PODICEPS AURITUS (L.); Ibis, 1860, p. 67, 1861, p. 344; P. Z. S. 1863, p. 322.

Amoy in winter.

613. PODICEPS CORNUTUS (Gmel.); P. Z. S. 1863, p. 322.

*Colymbus cornutus*, Gmel. Syst. Nat. i. p. 591.

Amoy in winter.

614. PODICEPS CRISTATUS (L.); Ibis, 1860, p. 67, 1861, p. 344; P. Z. S. 1863, p. 322.

*Podiceps cornutus*, Pall.

To the south coast, in winter, in large numbers.

615. COLYMBUS SEPTENTRIONALIS, L.; Ibis, 1863, p. 433; P. Z. S. 1863, p. 322.

*Colymbus glacialis*, Ibis, 1860, p. 67, 1861, pp. 268, 410, 345.

Common winter visitant to the south coast.



616. *MERGELLUS ALBELLUS* (L.); Ibis, 1861, p. 344; P. Z. S. 1863, p. 322.

North China. Common on the Yangtsze in winter.

617. *MERGUS SERRATOR*, L.; P. Z. S. 1863, p. 323.

*Mergus serratus*, Ibis, 1860, p. 67, 1861, p. 344.

Throughout China.

618. *MERGUS CASTOR*, L.

*Mergus merganser*, L.; Ibis, 1861, p. 344; P. Z. S. 1863, p. 323.

Comes down as low as Amoy in winter.

619. *MERGUS SQUAMATUS*, Gould, P. Z. S. 1864, p. 184.

China (*Gould*).

620. *CYGNUS MUSICUS*, Bechst.; Ibis, 1862, p. 254; P. Z. S. 1863, p. 323.

Shanghai market in winter.

621. *CYGNUS MINOR*, Pall. Zoogr. ii. p. 214; Ibis, 1861, p. 344, 1862, p. 254; Zoologist, 1860, p. 6924; P. Z. S. 1863, p. 323.

*Cygnus bewickii*, Yarr.; Ibis, 1867, p. 398.

Shanghai market in winter.

622. *CYGNUS DAVIDI*, Swinh. P. Z. S. 1870, p. 430.

Smaller than the last, with orange-red bill and legs. "Lores covered with small feathers" (*David*). The specimen on which this species is based is in the Pekin Museum, and was procured by Père David in the market at Tientsin.

623. *ANSER CYGNOIDES* (L.); Faun. Jap. pl.; Ibis, 1861, p. 344; P. Z. S. 1863, p. 323.

Common in the Shanghai market in the early part of winter.

624. *ANSER ALBIFRONS* (Gmel.); Ibis, 1861, p. 344; P. Z. S. 1863, p. 323.

Shanghai market in winter.

625. *ANSER ERYTHROPUS*, L.

*Anser minutus*, Naumann.

In the market at Kinkiang, on the Yangtsze, on the 16th March, 1869.

626. *ANSER CINEREUS*, Meyer, var. *RUBRIROSTRIS*.

*Anser fesus*, Swinh. Ibis, 1861, p. 344, 1862, p. 254; P. Z. S. 1863, p. 323, 1870, p. 427.

*Anser rubrirostris*, Hodgs.

Shanghai in winter. I have one shot at Canton by Mr. S. Bligh. It is of large form, with long and large bill, white on the frontal



feathers at the base of the bill, of a pale colour with blotches of black on the underparts, and with very little grey on the wing-coverts and rump. The size of the bill varies greatly in English specimens; but the pale colour, comparative absence of grey, and white frontal edging to the bill seem characteristic of the Eastern race, and I think it as well to distinguish it as a variety.

627. *ANSER SEGETUM*, var. *SERRIROSTRIS*.

*Anser segetum*, Ibis, 1860, p. 67, 1861, p. 344, 1862, p. 253, 1867, p. 392; P. Z. S. 1863, p. 323.

*Anser serrirostris*, Gould, MS.

A Bean-Goose comes down in immense swarms every cold weather to the marshes, at the river's mouth, near Amoy. They are of large size, and peculiar in having huge bills approximating that of *A. grandis*. I have handled several, and they were all so distinguishable. I have brought home a male and compared it with a home-shot bird kindly lent me by Mr. Tristram. The Chinese bird has a paler cheek and throat, a much lighter and yellowish-brown neck, narrower white edges and tips to the tail-feathers, and longer tarsi; but in other respects it is similar. The British Museum has two specimens of this Goose from Trans-Baikal, and Mr. Gould a specimen from Shanghai. Mr. Gould's specimen is labelled *A. serrirostris*, a name he intended to publish in 1862. On the Wanchow river all the Geese shot by our party on the 10th of February were of this race.

628. *ANAS BOSCHAS*, L.; Ibis, 1861, p. 344, 1862, p. 254.

A winter Duck in South China.

629. *ANAS ZONORHYNCHA*, Swinh. Ibis, 1866, p. 394; P. Z. S. 1870, p. 427.

*Anas pæcilorhyncha*, Temm. & Schl. Faun. Jap. pl. lxxxii.

Throughout China. I believe it breeds in many parts, north and south. It is absurd, with our present experience, to imagine this bird a cross between *A. boschas* and *A. pæcilorhyncha* of India. It is a very common Duck at Shanghai, and I have seen many specimens. *A. pæcilorhyncha* does not occur with us; and can we suppose that India would originate a bird to disperse throughout more Eastern Asia, and not reserve any of the hybrids for herself? Our bird (male) has a narrower yellow nib to the bill, and no basal yellow. It has a distinct white supercilium; throat unspeckled white; alar speculum deep blue, slightly tinged with green; lesser coverts, overlapping the speculum, brown, tipped with black with no white; tertials only slightly margined with white; rump, upper tail-coverts, and tail deep blackish brown, without any bronze reflections; crown, streak through the eye, and short moustache-streak deep brown; cheeks and neck brownish white, with brown specks; breast light yellowish brown, with deep-brown spots; rest of underparts deep brown, becoming nearly black on the under tail-coverts;



axillaries pure white. Size about that of *A. pæcilorhyncha*. The female is smaller than the male, and has the blotched yellowish of the breast extending to the abdomen. In *A. pæcilorhyncha* the breast and belly are nearly white, covered with round brown spots. The speculum of our bird is greener in some specimens; and some show a little white on the overlapping wing-coverts in rear of their black tips, and have more or less white on the outer webs of the tertials.

630. *TADORNA CORNUTA* (Gmel.).

*Tadorna vulpanser*, Flem.; Ibis, 1861, p. 344, 1862, p. 254.

*Anas cornuta*, S. G. Gmel. It. ii. p. 185.

China coast in winter.

631. *CASARCA RUTILA* (Pall.); Ibis, 1861, p. 344, 1862, p. 254.

Common, in winter, on inland waters; rare on the coast.

632. *SPATULA CLYPEATA* (L.).

*Rhynchaspis clypeata*, Swinh. Ibis, 1861, p. 57, 1862, p. 254, 1867, p. 388.

Abundant in South China and Formosa in winter.

633. *DAFILA ACUTA* (L.); Ibis, 1861, p. 345, 1867, p. 399.

China and Formosa in winter.

634. *MARECA PENELOPE*, L.; Ibis, 1861, p. 345, 1867, p. 399, 1870, p. 366.

Abundant in South China and Formosa in winter.

635. *CHAULELASMUS STREPERUS* (L.).

Procurable in the Shanghai market in winter, but rare.

636. *QUERQUEDULA CRECCA* (L.); Ibis, 1861, p. 345, 1865, p. 347, 1867, p. 399, 1870, p. 366.

Abundant everywhere in China and Formosa during winter. This species, the Wigeon, and the Shoveller are the commonest winter Ducks in South Formosa.

637. *QUERQUEDULA CIRCIA* (L.); Ibis, 1863, p. 434, 1867, p. 407; P. Z. S. 1870, p. 427.

Probably breeds in South China, but is rare. Has occurred also in Formosa.

638. *AIX GALERICULATA* (L.); Ibis, 1866, p. 295; P. Z. S. 1863, p. 324.

I think, throughout China, breeding in many localities. Found also resident in the interior of Formosa.

639. *EUNETTA FORMOSA* (Georgi); Ibis, 1867, p. 394.

*Anas glocitans*, Pall.; Ibis, 1861, p. 344, 1867, p. 231, 409.

Abundant throughout China in winter.



640. *EUNETTA FALCATA* (Pall.).

*Anas falcaria*, Lath.; Ibis, 1861, p. 345, 1862, p. 254.

*Querquedula multicolor*, Ibis, 1860, p. 67.

Throughout China in winter. Middendorff figures a young male for the female (Sib. Reise, t. xxi.). The female is coloured more as the female of *A. boschas*, with just a glow of pink on its cheeks.

641. *ÆDESMIA FUSCA* (L.).

Very abundant in the Shanghai market.

642. *ÆDESMIA AMERICANA* (Richardson); Ibis, 1863, p. 435; P. Z. S. 1863, p. 324.

Shot on the Yangtsze by Capt. Blakiston. I have sought in vain in the Shanghai market for both this and the true *Æ. nigra* (L.).

643. *BUCEPHALA CLANGULA* (L.).

*Clangula glaucion*, Ibis, 1861, p. 345.

I have procured this in winter as far south as Amoy. Common at Shanghai.

644. *HARELDA GLACIALIS* (L.).

Père David received a specimen of this shot at Takoo, mouth of the Peiho river.

645. *AYTHYA FERINA* (L.).

Shanghai market in winter.

646. *FULIX MARILA* (L.); Ibis, 1861, p. 345, 1862, p. 254.

Down the China and Formosan coasts in winter.

647. *FULIX CRISTATA* (L.); Ibis, 1861, p. 345, 1862, p. 254, 1867, p. 399.

Comes with the last.

648. *FULIX BAERI*, Radde, Reise im Süden von Ost-Sib. 1855-59, p. 376, t. xv.

On my cruise up the river Yangtsze we stopped at Kinkiang for a day and a half; and I was fortunate enough to procure an adult male of this species. It was being hawked about in the streets. My specimen answers precisely to Radde's description and figure, and looks very much like a cross between *Anas boschas* and *Fulix cristata*, having somewhat the head and breast of the former and the body of the latter. But mine is too exact a copy of Radde's type, which he procured from a party of four of the same, to admit of being considered a hybrid. Bill French grey. Irides light yellow. Legs patched with grey and black. Head and neck black, reflecting deep green; breast deep chestnut; upper parts, wings, and tail deep brown; greater wing-coverts white, tipped with bronzed brown; tertiaries deep bronzed brown, the foremost edged with



black; primaries brownish white on their inner webs; large loose feathers on the sides of the rump light reddish brown; abdomen splashed with brown.

649. *PHALACROCORAX CARBO* (L.); Ibis, 1860, p. 68, 1861, pp. 261, 345, 1863, p. 433, 1867, p. 390, 1870, p. 367; P. Z. S. 1863, p. 324.

*Phalacrocorax filamentosus*, Ibis, 1861, pp. 264, 409.

*Phalacrocorax capillatus*, P. Z. S. 1863, p. 325.

Throughout China and Formosa; in the south only during the winter.

650. *GRACULUS BICRISTATUS* (Pall.), Ibis, 1861, pp. 408, 410, 1863, p. 434; P. Z. S. 1863, p. 325.

*Phalacrocorax æolus*, Ibis, 1867, p. 395.

Occurs in winter on the China coast.

651. *PELECANUS MITRATUS*, Licht. Abh. Ak. Wiss. Berl. 1838, t. 32; P. Z. S. 1868, p. 266, fig. 3.

*Pelecanus minor*, P. Z. S. 1870, p. 428.

*Pelecanus onocrotalus*, Ibis, 1865, p. 352; P. Z. S. 1863, p. 325.

I have a specimen from Foochow.

652. *PELECANUS PHILIPPENSIS* (Gm.).

*Pelecanus philippensis*, Swinh. Ibis, 1865, p. 111, 1866, p. 297; P. Z. S. 1863, p. 325.

*Pelecanus crispus*, Ibis, 1860, p. 68, 1862, p. 254.

Amoy.

653. *SULA FIBER* (L.).

*Sula fusca*, Briss.; Ibis, 1870, p. 367; P. Z. S. 1863, p. 325.

*Sula sinicadvena*, Ibis, 1865, p. 109.

Formosa; Shanghai.

654. *LARUS NIVEUS*, Pall.; Bp. Consp. Av. ii. p. 224; Ibis, 1863, p. 428, 1870, p. 366; P. Z. S. 1863, p. 325.

*Larus canus*, var. *major*, Midd. Sib. Reise; P. Z. S. 1864, p. 272.

*Larus canus*, Ibis, 1860, p. 68, 1861, p. 345.

Like the following, but with stronger bill and longer tarse and toes. Visits Amoy harbour in the coldest weather, usually in immature plumage.

655. *LARUS CANUS*, L.

Much commoner than the last in Amoy harbour in winter, and often in fine adult plumage. Probably breeds in more southerly latitudes than its ally.



656. *LARUS CRASSIROSTRIS*, Vieill. ; Ibis, 1863, p. 428 ; P. Z. S. 1863, p. 326.

*Larus melanurus*, T. & S. Faun. Jap. ; Ibis, 1860, p. 133, 1861, pp. 261, 345.

*Larus fuscus*, Ibis, 1860, p. 68.

A common winter Gull on the South-China coast.

657. *LARUS CACHINNANS*, Pall. ; Ibis, 1863, p. 428, 1870, p. 366 ; P. Z. S. 1863, p. 327.

*Larus argentatus*, var. *cachinnans*, V. Schrenck, Reise Amur., Vög. p. 504.

*Larus borealis*, Bruch nec Brandt.

*Larus argentatus*, Ibis, 1861, p. 345.

China coast in winter. Rather larger than *L. argentatus*, with a deeper-coloured mantle.

658. *LARUS OCCIDENTALIS*, Aud. ; P. Z. S. 1863, p. 326.

*Larus borealis*, Brandt.

A winter visitant to the China coast. Like *L. argentatus*, but of very large size.

659. *CHROICOCEPHALUS BRUNNEICEPHALUS*, Jerdon.

Received at the Paris Museum from Pekin (*J. Verreaux*).

660. *CHROICOCEPHALUS RIDIBUNDUS* (L.) ; Ibis, 1863, p. 428.

*Chroicocephalus capistratus*, P. Z. S. 1863, p. 327.

Macao ; Amoy. Rare winter visitant to South China.

661. *CHROICOCEPHALUS SAUNDERSI*, Swinhoe. See *anted*, p. 273, Pl. XXII.

662. *SYLOCHELIDON CASPIA* (Pall.) ; P. Z. S. 1863, p. 328.

*Sterna caspia*, Pall. ; Ibis, 1860, p. 68, 1861, p. 345, 1863, p. 430, 1870, p. 366.

*Sterna melanotis*, Swainson (winter dress).

China generally.

663. *HYDROCHELIDON HYBRIDA* (Pall.).

*Hydrochelidon indica* (Steph.) ; Ibis, 1863, p. 428 ; P. Z. S. 1863, p. 328.

*Sterna leucopareia*, Natterer.

Formosa. Not observed yet in China.

664. *HYDROCHELIDON NIGRA* (L.) ; Ibis, 1863, p. 97 ; P. Z. S. 1863, p. 328.

*Hydrochelidon javanica*, Ibis, 1860, p. 68, 1861, p. 345.

Throughout China.



665. *THALASSEUS PELECANOIDES* (King); Schleg. Mus. des Pays-Bas.

*Thalasseus cristatus*, P. Z. S. 1863, p. 329.

*Sterna cristata*, Ibis, 1860, p. 68, 1863, p. 430.

*Sterna velox*, Ibis, 1860, p. 429, 1861, p. 345, 1866, p. 134.

South China; Formosa, breeds on the islands off its north end.

666. *HALIPLANA ANÆTHETA* (Scop.).

*Sterna panayensis*, Gmel. Syst. Nat. 1788, i. p. 607.

Common about the Pescadore Islands.

667. *STERNA HIRUNDO*, L.; P. Z. S. 1863, p. 329.

Hankow; Pekin.

668. *ONYCHOPRION MELANAUCHEN* (Temm.); Ibis, 1867, p. 230, 1870, p. 367.

*Sterna minuta*?, Ibis, 1860, p. 429.

Common about the rocks outside Amoy Harbour, where they breed.

669. *STERNULA MINUTA* (L.); Ibis, 1863, p. 430; P. Z. S. 1863, p. 329.

*Sternula sinensis* (Gmel.); Ibis, 1863, p. 429; P. Z. S. 1863, p. 329.

*Sterna minuta*, Ibis, 1860, p. 68, 1861, p. 345, 1862, p. 307.

Formosa; China. Breeds on the east coast of Formosa.

670. *GYGIS ALBA* (Sparrm.).

*Sterna candida*, Gmel. Syst. Nat. i. p. 607; Ibis, 1864, p. 423.

Seen near the Paracel Shoals in the South-China sea.

671. *ANOUS STOLIDUS* (L.); Ibis, 1860, p. 429, 1863, p. 430, 1864, p. 422; P. Z. S. 1863, p. 329.

*Anous pileatus*, North China Asiat. Soc. Journal, May 1859; Ibis, 1869, p. 360.

North-east Formosa, where it breeds.

672. *THALASSIDROMA MONORHIS*, Swinh. Ibis, 1867, p. 386.

Amoy. Breeding on the small islands north-east of Formosa (*Collingwood*).

673. *DIOMEDEA ALBATRUS*, Pall. Zoogr. ii. p. 308; Ibis, 1864, p. 423.

*Diomedea brachyura*, Temm.; Ibis, 1860, p. 67, 1863, p. 431, 1867, p. 226, 1870, p. 366; P. Z. S. 1863, p. 329.

China Sea.

674. *DIOMEDEA NIGRIPES*, Audubon; Ibis, 1863, p. 431; P. Z. S. 1863, p. 329.

*Diomedea fuliginosa*, Ibis, 1860, p. 68.

China Sea.



675. *ATTAGEN MINOR* (Gmel.).*Pelecanus minor*, Gmel. Syst. Nat. 1788, i. p. 572.*Tachypetes minor*, Ibis, 1868, p. 56.

Paracel Shoals. One shot at Amoy.

NOTE.—In the Chinese Materia Medica (called ‘Pun Tsao Kang Muh’) I find in the figure of the Fe-seng, or “Flying Beast,” a remarkable likeness to the fossil *Archæopteryx* described by Prof. Owen. I will investigate this question on my present return to China.  
—R. S.

2. Description of a new Genus of Newts from Western Yunan. By JOHN ANDERSON, M.D., Curator of the Indian Museum, and Professor of Comparative Anatomy, Calcutta.

[Received April 17, 1871.]

*TYLOTOTRITON*\*, n. g.

Head flat, surrounded by a prominent osseous ridge, with a short longitudinal ridge along the vertex. The bony orbit above the eye similar to that of *Cynops*, *Pleurodeles*, *Euproctus*, and *Notophthalmus*. Parotoids large, auriculoid, flattened from above downwards. Along the body a lateral line of equidistant, large, rounded, knob-like, porous, glandular tubercles, terminating at the root of the tail. The second to the fifth epipleural processes and the extremities of the remaining ribs terminate in the knob-like lateral glands. A broad porous vertebral ridge corresponding to the enlarged crests of the dorsal and sacral vertebræ. An obscure line of pores between the axilla and the groin, and a series of larger ones on the head. Skin finely tubercular. Tail as long as the body, laterally compressed, with sharp lower and upper margins. Limbs well developed. Fingers four, toes five. Palatine teeth begin on a line with the internal nostrils, in two ridges meeting in front, but widely divergent behind. Maxillary teeth small, acute, on the inner edge of the jaw. Tongue of moderate size, suborbicular, adherent, and slightly free at the edges. Vertebræ 46. Ribs 16: 13 dorsal, 1 sacral, 2 caudal.

*TYLOTOTRITON VERRUCOSUS*, n. sp.

The lateral cranial ridge subtriangular; the median ridge running backwards from the inside of the apex of the triangle, but not reaching so far posteriorly as the lateral ridge, the extremities of which curve inwards like a scroll in front of the parotoids. The parotoids slightly concave above, and somewhat resembling the outline of an upturned human ear. The nostrils close to the extremity of the rounded snout, but with a considerable interval between them,

\* *τυλωτός*, knobbed.