The White-eyed Australian Crow at present in the Society's Gardens, the manners of which were exceedingly like those of the British Jackdaw, was identical with this smaller kind. Length from bill to gape  $2\frac{1}{4}$  inches, of tail  $7\frac{1}{2}$  inches, tarsus  $2\frac{1}{4}$  inches, and middle toe with claw 2 inches. The larger species was probably that noticed by Mr. Ramsay in the 'Ibis' for 1865, p. 303, as being distinguished by having a dark-coloured iris. The lanceolate feathers in front of the neck were considerably more developed than in the other; and the throat was bare of feathers to a much greater extent, having merely a narrow central strip of them. Length of wing from carpus  $14\frac{3}{4}$  inches, tail 9 inches, bill from point to gape  $2\frac{3}{4}$  inches, tarsus  $2\frac{1}{2}$  inches, and middle toe and claw  $2\frac{3}{8}$  inches. In the smaller species the bill was more distinctly angulated than in the other; but in other respects the two bore a near resemblance.

The following papers were read:-

1. List of Birds collected by Mr. Wallace on the Lower Amazons and Rio Negro. By P. L. Sclater, M.A., F.R.S., and Osbert Salvin, M.A., F.Z.S.

## (Plates XXIX. & XXX.)

Mr. Wallace having kindly placed in our hands the collection of birds remaining in his possession from his former travels on the Lower Amazons and Rio Negro, we have had great pleasure in determining the species and in compiling the subjoined list of them. As regards the vicinity of Pará and the Lower Amazons Mr. Wallace believes the series now remaining in his hands to contain specimens of nearly all the species collected, with the exception of the water-birds, some of which have been altogether parted with. But a large part of the collections made on the Rio Negro, as likewise nearly all those from the Upper Amazons above Barra, were most unfortunately lost in the manner mentioned by Mr. Wallace in the Preface to his 'Travels on the Amazon and Rio Negro' (Preface, p. 4). Some few specimens of Upper-Amazons species still remain in Mr. Wallace's possession; but we have not included their names in the present list, as the country in which they were collected belongs to a different zoological province.

Many naturalists have at different times passed up and down the Lower Amazon and Rio Negro, and collected at various points on their banks; but we are still without anything like a detailed or connected account of the ornithology of the regions through which they travelled. It is in fact only within the last few years that the importance of giving exact localities to objects of natural history has met with the appreciation it deserves. Coming as it does from ground so repeatedly traversed, it was not to be expected that Mr. Wallace's collection would contain many novelties; and it is therefore chiefly with the object of elucidating the avifauna of this region, and fixing to exact localities species of which the precise patria

was hitherto unknown, that this catalogue has been prepared. Mr. Wallace has rendered it more valuable by adding notes on the habits and range of certain species, which have his initials affixed to them.

The principal localities wherein the present collection was formed

were:-

1. Mexiana. An island situated in the main stream of the Amazons, between the great Island of Marajo and the northern shore. Mr. Wallace has given an account of his sojourn in this island in his

'Travels,' p. 86, where he speaks of it as follows: -

"The Island of Mexiana is about twenty-five miles long by twelve broad, of a regular oval shape, and is situated exactly on the Equator. It is quite flat, and is all campo, or open ground, but dotted with scattered trees and bushes, and with a little forest at the water's edge. It is celebrated for its birds, alligators, and onças, and is used as a cattle estate by the proprietor."

2. Island of Marajo. A few specimens were collected at Jungcal,

on the northern side of this island (see 'Travels,' p. 107).

3. Para. The species marked "Para" were all collected within ten miles of the city. The forest commences within two miles of the town. The whole aspect of the country is fully described in the

second chapter of Mr. Wallace's interesting narrative.

4. Rio Tocantins. The species marked thus were collected between the mouth of the river and the first falls, during the excursion spoken of in Mr. Wallace's 'Travels,' Chap. III. Some interesting remarks on the same subject will also be found in Mr. Bates's well-known 'Naturalist on the Amazons,' Chap. IV.

5. Rio Capim. This is a small river issuing into the Rio Para, near the city of Para. Mr. Wallace gives an account of his excur-

sion up this river in Chap. V. of his 'Travels.'

6. Rio Negro. A full account of Mr. Wallace's journey on this river and its affluents will be found in Chap. VII. and four following chapters of his narrative. It is much to be regretted that the species from this district recorded in the present list form but a very small portion of the number actually collected—the series reserved by Mr. Wallace for his own use having been lost in the manner already mentioned, and that transmitted to England dispersed without any record having been kept of it.

Besides the specimens obtained at these localities, a few others were procured at various points of the main stream on the voyage

up to Barra, chiefly at Montalegre and Santarem.

The following list gives the names of all the species remaining in Mr. Wallace's hands from the above-mentioned localities. A few well-known species, identifiable without any chance of error from Mr. Wallace's notes, have been added to it—and a few others, of which examples collected by Mr. Wallace are in Sclater's collection or in the British Museum.

The nomenclature adopted for the Passeres, Picariæ, and Psittaci is that of Sclater's 'American Catalogue,' unless the contrary is stated. The species described as new are three in number, namely Hylophilus rubrifrons, Hylophilus semicinereus, and Heteropelma

wallacii. Mr. Wallace has kindly furnished us with notes upon some of the species, which are indicated by his initials.

### Fam. TURDIDÆ.

1. Turdus Phæopygus, Cab. (Pl. XXIX.)

Cobati, Rio Negro, 1851, two examples, "eyes olive." In Sclater's collection from Para.

The young of this species has a good deal of black colouring on the edges of the breast-feathers, which wear off in the adult, and leave the breast pure grey. One of Mr. Wallace's skins is a bird of the year and exhibits this plumage, which, however, is still more strikingly shown in a still younger specimen in Sclater's collection, shot by Mr. C. Bartlett on the Maroni River, Surinam, in the spring of 1866, and represented in Plate XXIX.

2. Turdus albiventris, Spix, Av. Bras. i. p. 70, t. 69; Cab. Mus. Hein. i. p. 4; Cab. in Schomb. Guian. iii. p. 666.

Turdus ephippialis, Scl. P. Z. S. 1862, p.109; Cat. A. B. App. p. 358.

Mexiana, Dec. 1848, one example.

In reviewing the American Turdi for our proposed 'Index Avium Americanarum' we have clearly made out that Sclater's *Turdus ephippialis* is the true *T. albiventris* of Spix, as determined by Cabanis, *l. s. c.* The bird hitherto called *T. albiventris* by Sclater is *T. amaurochalinus*, Cab. Mus. Hein. i. p. 5.

3. Turdus fumigatus, Licht.

Mexiana, Dec. 1848, one example.

4. Donacobius atricapillus (Linn.).

Para, one example; also obtained on the Upper Amazons, June 1850, one example.

"This species frequents the reed-beds and low trees on the banks

of the Amazons, and has a very fine song."-A. W.

#### Fam. TROGLODYTIDÆ.

5. Thryophilus leucotis (Lafr.).

Thryothorus leucotis, Lafr. R. Z. 1845, p. 338.

T. albipectus, Cab. in Schomb. Guian. iii. p. 673, et Sclater, Cat. A. B. p. 20.

T. galbraithi, Lawrence; Baird, Rev. A. B. p. 131.

Island of Marajo, Feb. 1849, one example.

This example agrees with Cayenne skins of the species hitherto called *T. albipectus* in Sclater's collection. But Lafresnaye's name is the oldest and must be adopted. As to the distribution of this species, see our note, P. Z. S. 1864, p. 345.

6. Troglodytes furvus (Gm.).

Para, August 1848, one example.

### Fam. MOTACILLIDÆ.

7. Anthus Chii, Vieill.

Mexiana, Dec. 1848.

"Tolerably plentiful in the open dry plains of Mexiana."-A. W.

### Fam. MNIOTILTIDÆ.

8. GEOTHLYPIS ÆQUINOCTIALIS (Gm.).

Mexiana, Dec. 1848 and Jan. 1849.

Represented in the Brazilian fauna by the closely allied G. velata.

### Fam. HIRUNDINIDÆ.

+9. PROGNE LEUCOGASTRA, Baird, Rev. A. B. i. p. 280.

Mexiana and Para, three examples.

These specimens do not differ from the Central American P. leu-cogastra, which Prof. Baird has correctly separated from the Antillean P. dominicensis.

10. PROGNE TAPERA (Linn.).

Rio Tocantins.

11. HIRUNDO ERYTHROGASTRA, Bodd.

Mexiana, one example, juv.

12. HIRUNDO ALBIVENTRIS, Bodd.

Para.

13. ATTICORA FASCIATA (Gm.).

Rio Negro.

"Common on the banks of the lower and middle Rio Negro."—A. W.

#### Fam. VIREONIDE.

14. VIREOSYLVIA AGILIS (Licht.).

Para.

15. CYCLORHIS GUIANENSIS (Gm.).

Para, March and June 1849.

Agrees with Cayenne examples; represented by C. ochrocephala in the Brazilian fauna.

-16. Hylophilus rubrifrons, sp. nov. (Pl. XXX. fig. 1.)

Cinerascenti-olivaceus, dorso imo virescentiore: fronte angusta, distincte rubra: secundariis extus flavescente rufo tinctis: cauda rufa unicolore: subtus ochraceus, abdomine cinerascentiore, lateribus virescente perfusis: subalaribus pallide flavis: rostro superiore corylino, inferiore cum pedibus pallidis.

Long. tota 4.3, alæ 2.1, alæ rem. prim. 1.3, caudæ 1.5, tarsi 0.6, rostri ab ang. oris 0.7 poll. Angl.

Hab. River Amazons (1850).

Obs. Species fronte rubra et cauda rufa insignis.

Of this apparently new *Hylophilus*, Mr. Wallace's collection contains unfortunately but one specimen. It is easily distinguishable by its red front and rufous tail from every other species of the genus known to us. *H. ochraceiceps* has also a rufous tail, but of a much more ochraceous tinge, and in other respects does not much resemble the present bird.

The fourth, fifth, and sixth primaries of H. rubrifrons are nearly equal and longest; the third slightly exceeds the seventh; the second just equals in length the longest secondary. The exposed portion

of the first primary measures 0.7 inch.

## -17. HYLOPHILUS SEMICINEREUS, sp. nov. (Pl. XXX. fig. 2.)

Supra viridi-olivaceus, nucha vix cinerascente: subtus pallide cinereus, ventre medio albicante, crisso flavo tincto: subalaribus flavis: rostro læte corneo, pedibus pallidis.

Long. tota 4.5, alæ 2.1, alæ rem. prim. 1.2, caudæ 1.7, tarsi 0.7,

rostri ab ang. oris 0.6.

Hab. Para (Wallace).

One example only of this *Hylophilus* also is in Mr. Wallace's collection, obtained at Para in May 1849. It is likewise a distinct species of the genus, readily recognizable by its uniform pale cinereous colour below. The first primary measures 0.75 inch from the insertion. The second is 0.25 inch shorter than the third, fourth, fifth, and sixth, which are nearly equal and longest.

### Fam. CEREBIDÆ.

18. DACNIS CAYANA (Linn.).

Para.

19. Cœreba cærulea (Linn.). Upper Rio Negro.

20. CŒREBA CYANEA (Linn.).

Para, Feb. 1849, and Upper Rio Negro, Feb. 1850.

21. CERTHIOLA CHLOROPYGA, Cab.

Three Mexiana specimens of this variable bird do not seem to differ from the Brazilian C. chloropyga. A fourth skin from Cobati, Rio Negro, shows a small white wing-spot, but does not otherwise differ. The last may be correctly referable to C. guianensis; but we are at present unable to appreciate the differences between the local races of this variable bird.

### Fam. TANAGRIDÆ.

22. EUPHONIA CAYANA (Linn.). Para.

23. CALLISTE FLAVIVENTRIS (Vieill.).

In Sclater's collection from Barra (Wallace).

24. CALLISTE BOLIVIANA, Bp.

In Sclater's collection from the Capim River (Wallace).

25. TANAGRA EPISCOPUS, Linn.

Para, Aug. 1848.

26. TANAGRA PALMARUM, Max.

Mexiana, Dec. 1848.

27. RAMPHOCŒLUS NIGRIGULARIS (Spix).

Middle Amazons, 1850. In Sclater's collection from Barra (Wal-

lace).

"This Tanager is found only on the right bank of the Rio Negro, and is never known to cross the river to the Cayenne side. It is found on both banks of the Upper Amazons above Barra."—A. W.

28. RAMPHOCŒLUS JACAPA (Linn.).

Mexiana and Para.

"One of the commonest birds in gardens at Para, and generally in the Lower-Amazons district."—A. W.

29. EUCOMETIS PENICILLATA (Spix).

Mexiana, Dec. 1848.

Sclater's specimens referred to *E. albicollis* are not different from the present bird, whatever *Pyranga albicollis*, Lafr. et D'Orb., may be. It occurs also on the Ucayali (*Bartlett*) and Napo (Mus. P. L. S.), and may therefore probably extend into the wood-region of Bolivia.

30. Tachyphonus melaleucus (Sparrm.).

Para, and Tocantins River.

31. TACHYPHONUS SURINAMUS (Linn.).

Para, March and May 1849. In Sclater's collection from Guia, Rio Negro, but here slightly different, and probably the same as Mr. Lawrence's T. napensis, Ann. L. N. Y. vii. (June 1864).

32. Tachyphonus cristatus (Gm.).

Para, May 1849. Agrees with Brazilian specimens.

33. TACHYPHONUS CRISTATELLUS, Sclater.

One skin from Guia, Rio Negro, agrees nearly with the type of this species from Bogota, except in rather smaller size. We have not been able to compare it with Cayenne skins; but the probability is that the latter also belong to this form.

34. NEMOSIA PILEATA (Bodd.).

Para, Jan. 1849.

+ em

35. ARREMON SILENS (Bodd.).

Capim River, June 1849.

36. SALTATOR MAGNUS (Gm.).

Para, February and May 1849.

37. SALTATOR MUTUS, Licht.

Mexiana, Nov. 1848 and Jan. 1849.

A young specimen has a strong olivaceous tinge on the back, wingedgings, and breast. *Tanagra superciliaris*, Spix, is probably the same bird, though very indifferently figured.

38. PITYLUS ERYTHROMELAS (Gm.).

Capim River, June 1849.

39. PITYLUS VIRIDIS (Vieill.).

Para.

Represented in the Brazilian wood-region by P. brasiliensis.

### Fam. FRINGILLIDÆ.

40. Oryzoborus torridus (Gm.).

Para, Oct. 1848.

41. SPERMOPHILA LINEATA (Gm.).

Para, Oct. 1848; Mexiana, Jan. 1849; Amazons (north side).

42. SPERMOPHILA LINEOLA (Linn.).

Mexiana, Tocantins, and Amazons (north side).

The male shows less white on the rump than a Cayenne skin in Sclater's collection, and no white crown-spot. In this stage it more resembles S. bouvronides (Less.) in Sclater's collection, which, however, is probably merely a variety of the same species.

+ 43. SPERMOPHILA GUTTURALIS, Licht.

Para, Oct. 1848.

44. VOLATINIA JACARINA (Linn.).

Barra and Guia.

45. PAROARIA GULARIS (Linn.).

Mexiana.

"Very common all about Para, on the banks of the rivers."-A.W.

46. Coturniculus manimbe (Licht.).

Mexiana.

47. Emberizoides macrourus (Gm.).

Mexiana, Dec. 1848.

Rather larger than the Cayenne bird, and wings more olivaceous,

also the uropygium lighter and less spotted; intermediate between it and the Brazilian E. sphenurus.

"Found among the grass on the campos near the ground."-A.W.

48. SYCALIS BRASILIENSIS (Gm.).

North side of the Amazons.

Smaller than S. brasiliensis from Brazil, but not otherwise different.

49. SYCALIS HILARII, Bp.

Mexiana, Dec. 1848.

Fam. ICTERIDÆ.

50. OSTINOPS VIRIDIS (Vieill.).

Para.

51. CACICUS PERSICUS (Linn.).

Para.

"One of the commonest and most conspicuous birds in the Para district. Lives in colonies, building beautiful long nests, generally hanging over the water."—A. W.

52. CACICUS HÆMORRHOUS (Linn.).

Para.

"The same in habits as C. persicus, but much more scarce."—A. W.

53. ICTERUS CAYANENSIS (Linn.).

Island of Marajo.

"This bird is called the 'Rossignol' or Nightingale at Para, and is often kept in cages."—A. W.

54. MOLOTHRUS SERICEUS (Licht.).

Mexiana.

55. XANTHOSOMUS ICTEROCEPHALUS (Linn.).

Amazons, north side.

56. LEISTES GUIANENSIS (Linn.).

Amazons (north side) and Mexiana.

"Found only in open grounds, amongst grass."-A. W.

57. Cassidix oryzivora (Gm.).

Para.

#### Fam. DENDROCOLAPTIDÆ.

-58. SCLERURUS CAUDACUTUS.

Thamnophilus caudacutus, Vieill. Nouv. Dict. iii. p. 310, et Enc. Méth. p. 742.

Sclerurus brunneus, Sclater, P. Z. S. 1857, p. 17, et 1858, p. 62.

Capim River.

One example, fully agreeing with Sclater's specimens from Bogota and Cayenne, upon which he has founded his S. brunneus. On revising the synonymy of this group, however, it appears that the species indicated by Vieillot as Thamnophilus caudacutus was from Guiana; and it is, therefore, this Guianan species (and not the Southeast-Brazilian form) which ought to bear his name. The bird of the Brazilian wood-region must therefore take the next earliest name applicable to it, and stand as Sclerurus umbretta (Licht.).

+59. Sclerurus Mexicanus, Sclater, P. Z. S. 1856, p. 290, & Am. Cat. p. 149.

Capim River.

A single specimen of Mr. Wallace's agrees in every respect with a considerable series of skins of this species in our collections from Mexico and Central America. They are from the following localities:—Mexico, Cordova (Sallé), Jalapa (De Oca); Guatemala, Choctum and Pacific slope (Salvin); Veragua (Arcé). We have been unable to refer to Swainson's S. ruficollis, stated to be figured in his 'Birds of Brazil.' In all copies of this work to which we have had access, this plate (t. 79) and also t. 78, where S. albigularis of the same author is figured, are deficient. It is possible that this bird may be the species figured in the first of these two plates, in which case it should bear Swainson's name.

## 60. SYNALLAXIS RUTILANS (Temm.).

An immature specimen, collected at Para in May 1849, of this species.

61. LEPTOXYURA CINNAMOMEA (Gm.).

Mexiana and Tocantins.

62. Philydor erythrocercus, Pelzeln.

Para, March and May 1849, three examples.

One of these skins (marked 3) agrees very nearly with Sclater's Cayenne specimen of this species, and with a typical specimen of Natterer's from Barra, also in his collection. Two others are larger and stronger, clearer white below, and with a more rufous tinge on the wings. The superciliary stripes are absent, and the tail is longer and more rounded. We are in some doubt whether these latter specimens do not belong to a distinct species.

+63. GLYPHORHYNCHUS CUNEATUS, Licht.

Para and Capim River.

64. Dendrocincla fumigata (Licht.); Burm. Syst. Ueb. iii. p. 8.

Three specimens from Para, referable, as far as we can make out, to this species.

65. DENDROCOLAPTES CAYENNENSIS (Gm.); Buff. Pl. Enl. 621.

Para, two examples, April and May 1849.

Agreeing with Cayenne specimens of this species, but different from the bird so named in Sclater's collection, which is from the Upper Amazons, and is probably undescribed.

## 66. DENDRORNIS OCELLATA (Spix).

Dendrocolaptes ocellatus, Spix, Av. Bras. i. p. 88; D. guttatus,

ejusd. tab. 91. fig. 1.

One example, obtained at Para, agrees with a specimen in Sclater's collection, also from Para, collected by Natterer, and determined by H. v. Pelzeln to be of this species.

## 67. DENDRORNIS EYTONI, Sclater.

Para, agreeing with the type obtained by Mr. Wallace, on the Rio Capim, in Sclater's collection. This species is closely allied to D. rostripallens, Lafr.

68. DENDROPLEX PICUS (Gm.). Para.

## 69. XIPHORHYNCHUS TROCHILIROSTRIS, Licht.

"River Amazons, north bank: 2, eyes dark blue."
"Obtained near Montalegre in a dry forest."—A. W.

### Fam. FORMICARIIDÆ.

70. THAMNOPHILUS MAJOR, Vieill.

Para, examples of both sexes, Oct. 1848.

71. THAMNOPHILUS LUCTUOSUS, Licht., Doubl. p. 47. One example, from the Rio Tocantins, Sept. 1848.

# 72. THAMNOPHILUS, sp.?

One example from the Amazons (1849), agreeing with a skin of Natterer's in Sclater's collection from the Rio Negro, marked "female" (no. 928). We do not know the male of this species.

# 73. THAMNOPHILUS NIGRO-CINEREUS, Sclater.

Two males, from the Rio Tocantins and Mexiana, agreeing perfectly with Sclater's type specimen, which is also evidently one of Mr. Wallace's skins.

74. THAMNOPHILUS AMAZONICUS, Sclater.

Specimens of both sexes from Para and Capim River.

475. THAMNOPHILUS DOLIATUS (Linn.). Island of Marajo.

76. THAMNOPHILUS RADIATUS, Spix, Av. Bras. ii. p. 24, t. 35. f. 2.

Amazons. Perhaps different from the T. radiatus of Vieillot (ex Azara), as pointed out by Sclater (P. Z. S. 1858, p. 218), but evidently the bird figured by Spix.

77. THAMNOPHILUS PALLIATUS, Licht. Para.

78. Dysithamnus plumbeus (Max.). Amazons, examples of both sexes.

79. MYRMOTHERULA AXILLARIS, Vieill. Capim River, examples of both sexes.

80. Myrmotherula brevicauda (Sw.). Capim River.

81. Myrmotherula hawxwelli, Sclater. Capim River. A female of this species.

82. FORMICIVORA GRIŠEA (Bodd.).
Rio Tocantins, Sept. 1848. A single female of this species.

+83. Ramphocænus melanurus, Vieill. Capim River, July 1849.

84. Pyriglena atra (Sw.). Para.

85. HYPOCNEMIS MELANOPOGON, Sclater.

Examples of both sexes of this species from Mexiana, Dec. 1848, agreeing with specimens from Cayenne.

86. Pithys albifrons (Gm.). Cobati, Rio Negro.

87. PITHYS LEUCASPIS, Sclater.

Cobati. A specimen, marked male, wanting the concealed dorsal patch, which is probably only found in the female.

88. Phlogopsis nigromaculata (Lafr. et D'Orb.). Para, May 1849.

+ 89. Formicarius crissalis, Cab. Journ. f. Orn. 1851, p. 96.

One example, from Para (Oct. 1848), agreeing in every respect with Cabanis's description. A skin in Sclater's collection from Trinidad (or Venezuela) is much darker below, and has the black throat

not so clearly defined. It is perhaps different. The present bird is grey below, medially paler, just as described by Cabanis.

90. Corythopis anthoides, Sclater.

Para, May 1849. Easily distinguishable from its Brazilian representative C. calcarata.

### Fam. TYRANNIDÆ.

- 91. ATTILA THAMNOPHILOIDES (Spix). Mexiana.
- 92. Tænioptera velata (Licht.). Mexiana, Dec. 1848.
- 93. Fluvicola albiventris, Spix. Mexiana, Dec. 1848.
- 94. CNIPOLEGUS UNICOLOR, Kaup, Journ. f. Orn. 185, p. 29 (?).

One example without exact locality attached. Resembles Kaup's description in having the entire plumage black, without any white inside the wings; but is of much smaller dimensions than those given by Heine (Journ. f. Orn. 1859, p. 337) for Kaup's species. Kaup does not trouble himself with dimensions.

95. Colopterus galeatus (Bodd.). Capim River, June 1849.

96. MIONECTES OLEAGINEUS (Licht.). Para and Guia.

97. PHYLLOSCARTES VENTRALIS (Temm.); Cab. et Heine, Mus. Hein. ii. p. 52.

Mexiana. Sclater has examples of this species from New Granada and Ecuador.

98. Phyllomyias semifusca, Sclater. Mexiana, Jan. 1849.

+99. CAMPTOSTOMA FLAVIVENTRE, Sclat. & Salv. P. Z. S. 1864, p. 358.

Mexiana.

- +100. LEGATUS ALBICOLLIS (Vieill.). Para, Aug. 1848.
- +101. Myiozetetes cayennensis (Linn.).
  Para, Aug. 1848.
  Proc. Zool. Soc.—1867, No. XXXVII.

+102. RHYNCHOCYCLUS SULPHURESCENS (Spix).

Para, Aug. 1848. Much smaller in dimensions than either Bra- zilian or northern specimens of this species, but not otherwise different.

103. RHYNCHOCYCLUS RUFICAUDA (Spix).

Para, May 1849.

104. PITANGUS SULPHURATUS (Linn.).

Para.

+105. PITANGUS LICTOR (Licht.).

Mexiana, Dec. 1848.

+106. MYIODYNASTES AUDAX (Gm.).

Para, Aug. 1848.

+107. MEGARHYNCHUS PITANGUA (Linn.).

Mexiana, Dec. 1848.

108. Myiobius Erythrurus, Cab.

Capim River.

109. EMPIDOCHANES OLIVUS (Bodd.).

Muscicapa oliva, Bodd. ex Buff. Pl. Enl. 574. f. 2 (fig. pess.).

Mexiana. Distinct from the allied E. fuscatus (Muscipeta fuscata, Max.), with which Cabanis and Heine unite it. The latter has much more strongly marked wing-edgings.

+110. Contopus brachytarsus, Sclater.

Mexiana. Agrees with skins in Sclater's collection from Mexico and Bogota, so probably a widely distributed species.

+111. Myiarchus ferox (Gm.).

Mexiana, Dec. 1848.

112. Myiarchus, sp.

Rio Tocantins. A species allied to *M. nigriceps*, Sclater, and apparently identical with an unnamed skin in his collection from Bogota (Cat. Am. B. p. 234. no. 1439).

113. Tyrannus melancholicus, Vieill.

Para.

+114. MILVULUS TYRANNUS (Linn.).

Guia, Rio Negro.

Fam. Cotingidæ.

115. TITYRA CAYANA (Linn.).

Examples of both sexes from Para.

- +116. Hadrostomus minor (Less.). Examples of both sexes from Para.
- + 117. PACHYRHAMPHUS CINEREUS (Bodd.).
  Island of Mexiana and Para.
- + 118. Pachyrhamphus polychropterus (Vieill.). Mexiana.
  - 119. LIPAUGUS CINERACEUS (Vieill.).

Para. Agreeing with Cayenne skins. One skin has light rufous edgings on the wings, and is probably immature.

## +120. HETEROPELMA WALLACII, sp. nov.

Pallide olivaceo-virens, fere unicolor, alis caudaque extus brunnescentibus: subtus dilutior, pectore rufescente vix tincto, subalaribus cinerascenti-fuscis: rostro nigricanti-corneo, ad basin
pallescente: pedibus pallide fuscis.

Long. tota 6.3, alæ 3.5, caudæ 2.6.

Hab. in vic. urbis Para (Wallace, May 1849).

Obs. Aff. H. amazonum ex fl. Amazonum superiore et ejusdem formæ et staturæ, sed corpore supra magis virescente, nec rufo tincto, et gula et abdomine pallidioribus et magis cinerascentibus diversa.

This bird appears to belong to a species different from any of the four previously known members of this peculiar genus, concerning which Sclater has written (P. Z. S. 1860, p. 467). It may possibly also occur in Cayenne, but we have not yet met with any species of the group from that country.

### 121. IODOPLEURA ISABELLÆ, Parz.

Rio Tocantins. We should rather have expected to meet with I. laplacii of Cayenne here. M. Parzudaki states that his type of I. isabellæ was procured on the Venezuelan Rio Negro; and the species also occurs in the Upper Amazonian district.

## 122. PIPRA FILICAUDA, Spix.

"Found in the wooded islands of the lower Rio Negro, on the lower boughs of the forest-trees."—A. W.

### 123. PIPRA FLAVICOLLIS, Sclater.

Mexiana and north side of the Amazons. This form, which is hardly separable from P. aureola of Cayenne, was originally described by Sclater from specimens of Mr. Wallace's said to have been from Barra, but more probably from the same locality as the present skins.

### 124. PIPRA FASCIATA, Lafr. et D'Orb.

Rio Tocantins. Another Peruvian form.

4 125. PIPRA LEUCOCILLA, Linn.

Para.

"This and P. auricapilla are the two commonest Manakins about Para."—A. W.

+126. PIPRA AURICAPILLA, Licht.

Para and Barra do Rio Negro.

127. PIPRA CYANEOCAPILLA, Hahn.

"Obtained in abundance on the Upper Rio Negro, on the right bank. Iris red; bill and feet black; lower mandible lead-colour."
—A. W.

128. CHIROXIPHIA PAREOLA (Linn.).

Para, Feb. 1849.

129. CHIROMACHÆRIS MANACUS (Linn.).

"Common near Para."-A. W.

130. PHŒNICOCERCUS CARNIFEX (Linn.).

Para and Guia, examples of both sexes.

"Found in the tops of the forest-trees, feeding on fruit."-A. W.

131. RUPICOLA CROCEA, Vieill.

Serra de Cobati, near Guia, Oct. 1850. See Mr. Wallace's notes in his 'Travels,' p. 221.

132. COTINGA CÆRULEA (Vieill.).

Para.

"Tolerably abundant in the forests near Para."-A. W.

133. COTINGA CAYANA (Linn.).

Abundant on the Rio Negro.

134. XIPHOLENA POMPADORA (Linn.).

Guia.

135. XIPHOLENA LAMELLIPENNIS, Lafr.

Para.

"Shot in the forests within ten miles of Para."-A. W.

+136. QUERULA CRUENTA (Bodd.).

Capim River.

137. Hæmatoderus militaris (Lath.).

"Obtained by Mr. Bates at Cameta, at the mouth of the Tocantins."—A. W.

138. CHASMORHYNCHUS NIVEUS (Bodd.).

65 Obtained on the Lower Rio Negro, about twenty miles above

Barra. Very difficult to shoot, from its sitting at the top of very high trees. Also seen near Para (see Travels, p. 132)."—A. W.

- 139. Gymnoderus fætidus (Linn.).
- "Met with on the right bank of the Lower Rio Negro; rather plentiful on low trees on the banks of the river. Naked skin of the neck dark ultramarine blue."—A. W.
  - 140. GYMNOCEPHALUS CALVUS (Gm.).
- "One specimen of this bird was obtained at Guia, on the Upper Rio Negro. The iris is blue black; the bare part of the head and also the feet dusky lead-colour. Skin of the neck loose; trachea dilated, and the voice very loud and remarkable."—A. W.
  - 141. CEPHALOPTERUS ORNATUS, Geoffr.
- "Met with by me only in the wooded islands of Lower Rio Negro, between Barra and the mouth of the Rio Brancho. Occurs again on the banks of the River Uaupes, above the cataracts. It is also found on the Upper Amazon near Ega (see Bates, Nat. on the Amazon, ii. p. 283). I have described its habits in an article published in the Society's 'Proceedings' for 1850, p. 206."—A. W.

#### Fam. MOMOTIDÆ.

142. Momotus brasiliensis, Lath. Para.

#### Fam. ALCEDINIDÆ.

- +143. CERYLE TORQUATA, Linn.
  Tocantins: Mexiana.
- +144. CERYLE AMAZONIA (Lath.). Tocantins.
- +145. CERYLE INDA (Linn.).
  Mexiana.
  - 146. CERYLE AMERICANA (Gm.).

Para; Tocantins; South bank of the Amazons.

+147. CERYLE SUPERCILIOSA (L.). Mexiana.

#### Fam. GALBULIDÆ.

148. GALBULA VIRIDIS (Linn.). Amazons, north bank, 1850.

149. GALBULA RUFO-VIRIDIS, Cab. Rio Tocantins.

150. GALBULA ALBIROSTRIS, Lath.

Guia, Rio Negro.

151. GALBULA CYANEICOLLIS, Cassin.

Capim River.

152. GALBULA LEUCOGASTRA, Vieill.

Guia.

153. UROGALBA PARADISEA (Linn.).

North bank of the Amazons.

154. UROGALBA AMAZONUM, Sclater, P. Z. S. 1855, p. 14.

Para.

After some consideration we feel bound to resuscitate this species, which Sclater, after having described it, was persuaded by Von Pelzeln to reunite to the preceding. It is certainly readily distinguishable by its much larger size, the hoary terminations of the head-feathers, the less amount of black on the chin, and the greater extent of white on the throat below, and requires a name.

155. BRACHYGALBA INORNATA, Sclater.

Baiao, Rio Tocantins.

+156. JACAMEROPS GRANDIS (Gm.).

Capim River and vicinity of Barra, examples of both sexes.

"This bird has more the habits of the Trogons than of the true Galbulæ. While the latter are always found on the outskirts of the forest, the Jacamerops keeps rather to the gloom, where it sits on boughs hanging over the forest and captures insects."—A. W.

#### Fam. Bucconidæ.

157. Bucco collaris, Lath.

Lower Amazons.

158. Bucco hyperrhynchus, Bp.

Para. Above Barra, on the south bank of the Amazons, Mr. Wallace obtained the Peruvian species (B. napensis, Sclater). The locality of "Upper Amazons," commonly attributed to this species, is very probably erroneous.

159. Bucco tamatia, Gm.

Three examples, without exact localities, agree with the Cayenne bird. A fourth, from the Capim River, has the spots on the belly crowded as in B. pulmentum of the Upper Amazons; but the throat is as dark as in the Cayenne bird, not pale as in B. pulmentum.

+160. Bucco Tectus, Bodd.

Para. Agrees with Cayenne specimens.

161. MALACOPTILA FUSCA (Gm.).

Upper Rio Negro.

162. MALACOPTILA RUFA (Spix).

Para.

163. Monasa nigrifrons (Spix).

Rio Tocantins.

164. CHELIDOPTERA TENEBROSA (Pall.).

Para.

"Abundant on the Lower Amazons and Rio Negro."-A. W.

## Fam. TROGONIDÆ.

+165. Trogon viridis, Linn.

Capim River.

+166. Trogon melanurus, Sw.

Para.

167. PHAROMACRUS PAVONINUS (Spix).

Trogon pavoninus, Spix, Av. Bras. i. p. 47, t. 35.

Barra do Rio Negro.

"Found at Barra, on the left bank of the river." -A. W.

#### Fam. CAPRIMULGIDÆ.

168. PODAGER NACUNDA (Vieill.).

Capim River.

169. CHORDEILES RUPESTRIS (Spix).

"Found sitting on sand and rocks in an island on the Upper Rio Negro."—A. W.

170. Lurocalis nattereri (Temm.).

Para. Intermediate in size between some skins of this species and L. gouldi. Long. tota 8.3, alæ 7.4, caudæ 3.4.

171. Antrostomus nigrescens (Cab.).

Para.

172. Hydropsalis trifurcata (Natt.); Sclater, P. Z. S. 1866, p. 141.

Rio Tocantins.

#### Fam. TROCHILIDE.

173. EUPETOMENA MACRURA (Gm.).

Island of Mexiana.

174. CAMPYLOPTERUS LARGIPENNIS (Bodd.).

Rio Negro. Agrees with Cayenne specimens.

175. Campylopterus obscurus, Gould, Mon. Troch. ii. t. 49.

Para, three examples, showing that this is the Lower-Amazonian representative of the preceding species.

176. TOPAZA PYRA.

"Occurs on the Upper Rio Negro, where it is shot by the Indians, and its feathers are used in making feather ornaments."—A. W.

+ 177. LAMPORNIS MANGO (Linn.).

Mexiana; and Cobati, Rio Negro.

178. LAMPORNIS GRAMINEUS (Gm.).

Mexiana.

179. THALURANIA FURCATOIDES, Gould, Intr. Mon. Troch. p. 77. Para.

Mr. Gould separates this bird from the T. furcata of Cayenne; but the distinctive characters are not very appreciable.

+180. FLORISUGA MELLIVORA (Linn.).

Para; and Cobati, Rio Negro.

181. HELIOTHRIX AURITUS (Gm.).

Guia, Rio Negro.

182. POLYTMUS LEUCORRHOUS, Gould, MS.

A skin of this undescribed species in Mr. Gould's collection was obtained by Mr. Wallace at Cobati, Rio Negro. The bird very nearly resembles P. viridissimus, of Cayenne, but has the crissum white.

183. AGYRTRIA MILLERI (Bourc.).

Cobati, Rio Negro.

184. AGYRTRIA MACULATA (Vieill.).

Mexiana.

185. Hylocharis sapphirina (Gm.).

Para.

186. EUCEPHALA CÆRULEA (Vieill.).

Para.

187. EUCEPHALA HYPOCYANEA, Gould, P. Z. S. 1860, p. 306; Mon. Troch. v. t. 334.

Cobati, Rio Negro.

A female, apparently of this species, and, if such be the case, of

great interest as indicating the correct locality of this Humming-bird, which was unknown to Mr. Gould. The under surface of the present specimen is sordid white, with slight marginations of bluish green in some of the feathers. The upper tail-coverts retain the characteristic bronzy colouring of the male bird.

### Fam. CUCULIDÆ.

+188. CROTOPHAGA ANI, Linn.

Mexiana.

189. CROTOPHAGA MAJOR, Linn.

Capim River.

190. Guira piririgua (Vieill.).

Mexiana.

+191. DIPLOPTERUS NÆVIUS (Linn.).

Mexiana.

192. PIAYA CAYANA (Linn.).

Para.

+193. PIAYA MINUTA (Vieill.).

Para.

### Fam. OPISTHOCOMIDÆ.

194. Opisthocomus cristatus.

Para.

"This bird abounds on the low shores of the river between Para and the Tocantins. It is found in small flocks of from ten to twenty individuals, and feeds on the leaves of the *Arum arboreum*, with which its stomach is generally loaded. This gives it a very disagreeable odour. Nothwithstanding its large wings, its flight is slow and laboured. It is never seen on the ground or in high trees, but principally sitting upon the *Arum*. When alarmed it throws up its crest exactly in the same manner as the Guira."—A. W.

#### Fam. RAMPHASTIDÆ.

195. Ramphastos toco.

"Obtained in Mexiana, but not known at Para."-A.W.

196. RAMPHASTOS ERYTHRORHYNCHUS, Gm.

Para.

197. RAMPHASTOS OSCULANS, Gould.

Upper Rio Negro.

198. RAMPHASTOS ARIEL, Vig.

Para.

This is one of the few types of the Brazilian forest-region that intrude into the district of Para. On the north bank of the Amazons it is replaced by the following species:—

199. RAMPHASTOS VITELLINUS, Licht.

North bank of the Lower Amazons.

200. Pteroglossus araçarı (Linn.). Capim River.

201. Pteroglossus inscriptus, Sw.

Para.

202. Pteroglossus bitorquatus, Vig.

Para.

203. SELENIDERA GOULDI, Natt.

Para, August, 1848.

204. SELENIDERA NATTERERI, Gould.

Upper Rio Negro. See Gould's 'Monograph,' ed. 2. t. 34.

### Fam. CAPITONIDÆ.

+ 205. Capito amazonicus, Deville et Des Murs; Sclater, Ibis, 1861, p. 186.

Guia, Rio Negro.

## Fam. PICIDÆ.

206. Camperhilus albirostris (Spix).

Rio Tocantins.

207. CAMPEPHILUS TRACHELOPYRUS, Malh. Capim River.

+208. Dryocopus lineatus (Linn.).

Para.

209. CELEUS JUMANA, Spix.

Picus jumana, Spix, Av. Bras. i. p. 57, t. 47.

Para.

Specimens of both sexes of this species, which is very distinct from Celeus citreopygius (Bp. MS.) of the Upper Amazons, the latter being darker in colouring, particularly on the flanks, and having no cross bands on the primaries or secondaries. Malherbe considers them local varieties; but they are in fact well-marked species. The nearest ally of Celeus jumana is C. cinnamomeus of Cayenne. Sclater's bird referred to C. jumana (Cat. A. B. p. 336) is C. citreopygius, Bp.

210. CELEUS MULTIFASCIATUS.

Celeopicus multifasciatus, Malh. Mon. Pic. ii. p. 16, t. 50. f. 4, 5.

One example from the "Amazons," probably the lower part of the river, appears to be a male of this species, as determined by Malherbe. It is a close ally of C. rufus of Cayenne, but recognizable by the dark rufous cap, and the black longitudinal lines on the nape, sides of head, and throat: in Celeus rufus the markings are transverse.

211. CHLORONERPES TEPHRODOPS (Wagl.).

Island of Mexiana.

212. CHLORONERPES HÆMATOSTIGMA, Malh.

River Tocantins.

213. CHLORONERPES FLAVIGULARIS (Bodd.).

Para.

214. MELANERPES CRUENTATUS, Bodd.

Barra do Rio Negro.

Fam. PSITTACIDÆ.

215. ARA ARARAUNA (Linn.).

Mexiana.

+216. ARA MACAO (Linn.).

Mexiana.

217. ARA HYACINTHINA.

This species is not found in the Amazons valley proper, and appears to be restricted to the slightly elevated plateau south of the Lower Amazons. It was seen about 100 miles up the Tocantins\*, and again about the same distance up the Tapajos†, where specimens were procured by Mr. Bates.

218. ARA NOBILIS (Linn.).

Para.

219. Conurus luteus, Bodd.

Para.

Very rare in the neighbourhood of Para, where it appears once a year, when a particular fruit is ripe. I only saw one flock in one particular tree, and obtained four or five specimens out of it.

220. Conurus aureus (Gm.).

Island of Mexiana.

221. Conurus æruginosus (Linn.).

Conurus chrysogenys, Mass. et Souanc. Rev. Zool. 1854, p. 72. A skin of a Conurus, collected by Mr. Wallace at S<sup>ta</sup> Isabel on the

<sup>\*</sup> See Bates's Amazons, vol. i. p. 133; Wallace's Travels, p. 74.

<sup>†</sup> Bates, l. c. p. 139.

Rio Negro, exactly agrees with Sclater's specimen, also from the Rio Negro, called C. chrysogenys in his 'Catalogue,' and with the description of Souancé. We are not yet prepared to follow M. Finsch in uniting under C. pertinax the species named C. æruginosus, C. chrysogenys, C. xantholæmus, C. ocularis, and C. chrysophrys; but his remarks on this subject (Papageien, i. p. 506) are eminently worthy of attention. Conurus xantholæmus and C. æruginosus (so labelled), now living side by side in the Society's Gardens, are very distinct species, and certainly not to be confounded together.

### 222. Conurus perlatus.

Aratinga perlata, Spix, Av. Bras. i. p. 35, t. 20. f. 1.

Sittace lepida, Wagl.

Conurus lepidus, Finsch, Pap. i. p. 543.

Capim River.

We see no reason for rejecting Spix's name for this species in favour of Illiger's MS. term subsequently adopted by Wagler.

## 223. BROTOGERYS VIRESCENS (Gm.).

Conurus virescens, Scl. Cat. A. B. p. 351.

Mexiana.

"Excessively abundant in the island, in flocks of several hundreds."

—A. W.

## 224. BROTOGERYS NOTATUS (Bodd.); Pl. Enl. 456. f. 2.

Brotogerys tuipara et B. notatus, Sclater, Cat. A. B. p. 352. Para.

"Almost as abundant at Para as the latter species in Mexiana, and also found in flocks."—A. W.

225. CHRYSOTIS FARINOSA (Bodd.).

Rio Tocantins.

+226. Pionus menstruus (Linn.).

Rio Tocantins.

227. PIONUS VIOLACEUS (Bodd.).

Para.

228. CAICA MELANOCEPHALA (Linn.).

Upper Rio Negro.

"Found abundantly up the Rio Uaupes."—A. W.

229. CAICA VULTURINA, Kuhl.

Para.

"Very rare in the neighbourhood of Para. I only procured one specimen."—A. W.

230. DEROPTYUS ACCIPITRINUS.

Rio Uaupes; Upper Rio Negro.

231. UROCHROMA PURPURATA (Gm.). Capim River.

### Fam. VULTURIDÆ.

+232. GYPARCHUS PAPA (Linn.).

The King-Vulture is found in the forests all along the Lower Amazons.

+233. CATHARTES AURA.

-234. CATHARTES ATRATUS.

Mr. Wallace states that both these species are found at Para. From the Upper Amazons Mr. Wallace has a specimen of what appears to be C. urubitinga, Natt. (v. Pelzeln, Sitz. Ak. Wien, xliv. p. 7), obtained on the south bank about 100 miles above the Rio Negro.

### Fam. FALCONIDÆ.

+235. IBYCTER AMERICANUS (Bodd.).
Para.

236. IBYCTER ATER (Vieill.).

Para.

237. Polyborus brasiliensis (Gm.). Mexiana.

- +238. Milvago Chimachima (Vieill.). Mexiana and Barra.
- +239. URUBITINGA ZONURA (Shaw).
  Mexiana.
- +240. Urubitinga meridionalis (Lath.).
  Mexiana.
- +241. Urubitinga nigricollis (Lath.). Mexiana.
- +242. ASTURINA NITIDA (Lath.).
  North side of the Amazons.

243. ASTURINA MAGNIROSTRIS (Gm.). Mexiana.

244. Leucopternis superciliaris.

Leucopternis kuhli, Bp. Consp. i. p. 19 (1850).

Buteo kaupi, G. R. Gray in Mus. Brit., unde Lecopternis kaupi, Bp. Rev. Zool. 1850, p. 533.

Leucopternis superciliaris, Pelzeln, Sitz. Ak. Wien, xliv. p. 10.

Para, one example, killed in December 1849.

The only description of this well-marked species is that given by Von Pelzeln; and we feel bound, therefore, to adopt his name for it, in preference to either of Bonaparte's, which have no sufficient diagnosis attached to them. We have compared Mr. Wallace's specimen with *Buteo kaupi* of the British Museum (of which there are two specimens in the collection) and find them identical.

- + 245. Spizaëtus tyrannus (Max.). Capim River.
- 246. HERPETOTHERES CACHINNANS (Linn.). Mexiana.
  - 247. MICRASTUR GILVICOLLIS (Vieill.). Para.
- 4 248. Hypotriorchis femoralis (Temm.). Mexiana.
- + 249. Hypotriorchis rufigularis (Daud.). Rio Tocantins.
- + 250. CYMINDIS CAYANENSIS (Gm.). Amazons.
- + 251. ICTINIA PLUMBEA (Gm.).
  Para.

#### Fam. STRIGIDÆ.

- + 252. Syrnium Perspicillatum (Lath.).
  Amazons, north side.
- + 253. Syrnium zonocercum, G. R. Gray, MS.

Para, May 1849. Agreeing with the Venezuelan birds thus designated in the British Museum, but not with any described species that we are acquainted with.

- 254. LOPHOSTRIX CRISTATA (Daud.). Para.
- + 255. Scops сноціва (Vieill.). Mexiana.

#### Fam. COLUMBIDÆ.

- + 256. COLUMBA SPECIOSA (Gm.). Para.
- + 257. COLUMBA VINACEA (Temm.). Capim River.

+ 258. COLUMBA RUFINA (Temm.). Mexiana.

259. Zenaida maculata (Vieill.); Bp. Consp. ii. p. 82. Mexiana.

+260. CHAMÆPELIA PASSERINA (Linn.). Para.

261. CHAMÆPELIA TALPACOTI (Temm.); Burm. S. U. iii. p. 297. Rio Tocantins.

+262. Geotrygon montana (Linn.); Bp. Consp. ii. p. 72. Upper Rio Negro and Para.

263. LEPTOPTILA RUFAXILLA, Bp. Consp. ii. p. 73. Mexiana.

## Fam. Tetraonide.

264. Odontophorus guianensis (Gm.). In Salvin's collection, from the Capim River (Wallace, June 1849).

## Fam. CHARADRIIDÆ.

+ 265. Hoplopterus cayanus (Lath.). South bank of the Amazons.

266. VANELLUS CAYENNENSIS, Gm. Mexiana.

267. ÆGIALITES SEMIPALMATUS, Bp.; Baird, B. of N. A. p. 694; Schlegel, Mus. des P.-B. Cursores, p. 30.

Charadrius brevirostris, Max. Beitr. iv. p. 769; Schomb. Guian. iii. p. 750; Burm. S. U. iii. p. 359.

Mexiana.

+268. ÆGIALITES COLLARIS (Vieill.).

Charadrius azaræ, Burm. S. U. iii. p. 360.

Mexiana and Rio Tocantins.

### Fam. SCOLOPACIDÆ.

+ 269. Himantopus nigricollis (Vieill.). Mexiana.

270. TRINGA MINUTILLA (Vieill.); Schlegel, Mus. des P.-B. Scolopaces, p. 48.

Mexiana.

271. TRINGA BONAPARTII, Schlegel. Rio Tocantins.

272. EREUNETES PETRIFICATUS, Ill.; Baird, B. N. A. p. 724. Mexiana.

273. GAMBETTA FLAVIPES, Gm. Mexiana.

274. RHYACOPHILUS SOLITARIUS (Wils.). Mexiana.

275. Tringoides macularius (Linn.). Mexiana.

Fam. RALLIDÆ.

276. Porzana cayennensis (Linn.). Para.

277. Porphyrio parvus (Bodd.). Amazons.

278. Porphyrio martinicus (Linn.). Amazons.

### Fam. PSOPHIIDÆ.

279. PSOPHIA OCHROPTERA, Pelzeln.

Rio Negro (Wallace in Mus. Brit.).

Mr. Wallace has given some interesting remarks on the geographical distribution of the different species of Trumpeter in his 'Travels' (p. 473); but, from his specimens having been lost, he has perhaps not quite accurately laid down the boundaries between them. Von Pelzeln's paper on the birds of this group collected by Natterer\* gives further details upon the subject, and enables us to indicate what we believe to be the probable ranges of the known species, which appear to be separated by rivers.

# a. Species dorso cinereo aut albo.

(1) Ps. crepitans (Linn.). British Guiana, extending inwards as far as the Rio Negro.

(2) Ps. ochroptera, Pelzeln, l. c. p. 371. Upper Rio Negro, pro-

bably only on the right bank. Barcellos (Natt.).

(3) Ps. leucoptera, Spix. South or right bank of the Amazons above the Madeira. Ega, Coari, and San Paolo (Wallace).

## b. Species dorso viridi.

(4) Ps. viridis (Spix). South or right bank of the Amazons below the Madeira, and extending up the right bank of the Madeira to the Rio Mamoré (Natterer). Villa Nova (Spix).

(5) Ps. obscura, Pelzeln. Right bank of the Amazon near Para. The dividing river between this and the preceding species is not known; it may be the Tocantins, the Xingu, or the Tapajos.

<sup>\*</sup> Sitz. Ak. Wien, xxiv. p. 371 et seq. (1857).

### Fam. LARIDÆ.

280. STERNA MAGNIROSTRIS, Licht. Mexiana.

281. STERNA SUPERCILIARIS (Vieill.). Rio Tocantins.

+ 282. RHYNCHOPS MELANURA, Sw. Mexiana.

Having thus concluded our list of species, we proceed to consider what conclusions can be drawn from it as to the general character of the avifauna of the localities whence they are derived. Of the whole number of 282 species, 48 are from the Rio Negro, and, as far as our information goes, are not found in the Lower Amazons district. From this part of the series, presenting us as it does with such an insignificant portion of the whole ornis, it would be useless to attempt to draw any further conclusion than that the large majority of the species recorded from this region are Guianan forms. Of the 48 Rio Negro species, 37 are certainly likewise found in Guiana. The remaining 11 are believed to be either peculiar to the Rio Negro or intruders from the Upper Amazonian district. These are-

1. Ramphocælus nigrigularis.

2. Pithys leucaspis.

3. Pipra filicauda.

5. Cephalopterus ornatus.

6. Pharomacrus pavoninus.

7. Chordeiles rupestris.

8. Topaza pyra.

9. Eucephala hypocyanea.

4. —— cyaneocapilla. 10. Capito amazonicus.

11. Psophia ochroptera.

But these exceptions weigh little in the balance when we consider the presence on the Rio Negro of such marked Cayenne types as Gymnoderus fætidus, Gymnocephalus calvus, Rupicola crocea, Xipholena pompadora, &c.

Let us now, therefore, turn to the portion of the collection from the vicinity of Para and the Lower Amazons, and see what results can be derived from its examination. The whole number of species obtained in these localities was 242, two of which cannot be satisfactorily determined at present. The remaining 240 may be analyzed as follows:-

1. Species of wide range, belonging to Cayenne, 96 Para, and South-east Brazil ..... 2. Species common to Para and Cayenne only, 40 (16 per cent. of whole number); and species ranging west and north-west into 88 (about 61 per cent.) the Upper Amazons, Venezuela, New Granada, and Central America, 48; together ... 15 (about 10 per cent.) 3. Species common to Para and South-east Brazil 4. Species common to Para and Upper Amazons... 18 (about 12 per cent.) 5. Species found in Para alone ...... 23 (about 17 per cent.) 240

The 96 wide-ranging species, which amount to about 40 per cent. of the whole, comprise members of all orders, but are mostly Proc. Zool. Soc.—1867, No. XXXVIII.

Accipitres, Grallæ, &c., which are mainly birds of wide distribution, many of them extending over the whole neotropical region. Having deducted these 96 we have left a residuum of 144 of more local character as regards their range, an examination of which will at once solve the question to which of the great zoological divisions of

South America the district of the Lower Amazons pertains.

Of these 144 species not less than 88 (or 61 per cent.) are identical with species found in Cayenne, either belonging to forms peculiar to the Guianan province, or, if occupants of a more extended area, ranging westward and north-westward into the Upper Amazons or Venezuela, New Granada, and Central America, but not extending southward into the wood-region of South-eastern Brazil. Not only is this Guianan element noticeable for its numerical extent in species, but also as exhibiting such well-marked forms as Pithys, Phænicocercus, Hæmatoderus, Querula, Urogalba, Jacamerops, Opisthocomus, and Psophia, all of which are quite foreign to the woodregion of South-eastern Brazil. The Guianan facies of the Para district is further shown by an examination of the instances in which the two provinces of Guiana and South-eastern Brazil are occupied by corresponding representative forms. In almost every case the Para form, when ascertained, is found to belong to the Guianan and not to the Brazilian species. In the subjoined table, of fourteen instances of this sort, it will be noted that there is only one positive exception to this rule. In two other cases both Guianan and Brazilian species occur within the Para district, and the River Amazons appears to form the boundary between them, the Guianan species being found on the north bank and the Brazilian on the south\*.

CAYENNE.	PARA DISTRICT.	Brazil.
1. G. æquinoctialis	Geothlypis æquinoctialis	G. velata.
2. C. guianensis	Cyclorhis guianensis	C. ochrocephala. T. cyanoptera.
3. T. episcopus 4. P. viridis	Tanagra episcopus	P. brasiliensis.
5. E. macrurus	Emberizoides macrurus, var	E. sphenurus.
6. I. cayanensis	Icterus cayanensis	I. tibialis.
7. C. anthoides	Corythopis anthoides	C. calcarata.
8. F. pica	Empidochanes olivus	F. albiventris. E. fuscatus.
10. G. viridis	Galbula viridis	G. rufo-viridis.
11. C. tenebrosa	Chelidoptera tenebrosa	C. brasiliensis.
12. P. araçari	Pteroglossus araçari	P. wiedi.
13. R. vitellinus	{ Ramphastos ariel	R. ariel.
14. C. flavigularis	Chloronerpes flavigularis	C. erythropis.

<sup>\*</sup> The River Amazon probably divides the range of the following species:-

Pipra flavicollis from P. aureola.
Xipholena lamellipennis from X. pompadora.
Galbula rufo-viridis from G. viridis.
Urogalba amazonum from U. paradisea.
Bucco hyperrhynchus from B. macrorhynchus.
Thalurania furcatoides from T. furcata.
Campylopterus obscurus from C. largipennis.
Ramphastos vitellinus from R. ariel.
Psophia obscura from P. crepitans.

The purely Brazilian forms which occur in the Para district and are not known in Guiana are only 15 in number, or less than 10 per cent. of the whole. A similar foreign element appears to have intruded itself from the Upper Amazons, 18 or about 12 per cent. of species hitherto only known as inhabitants of the Upper Amazonian district occurring near Para. It is worth noticing, however, that about half these were procured on the Capim River or Tocantins, where the Peruvian element would appear to be stronger than in the vicinity of Para\*.

There remain only to be considered the species peculiar to the Para district as far as hitherto known, which amount to about 23, or 17 per cent. of the whole, after excluding the species of wide range. As shown by the subjoined table, these Para species are not untrequently representatives of allied forms in Cayenne, in some cases so closely allied as to be hardly distinguishable (e. g. Urogalba amazonum, Thalurania furcatoïdes), in others so well marked as to allow no question as to their specific validity, such as Xipholena

lamellipennis and Celeus jumana.

# Species peculiar to the district of Para.

1. Hylophilus rubrifrons.

2. — semicinereus.

3. Saltator mutus.

4. Dendrornis eytoni.

5. Thamnophilus luctuosus.

6. — nigrocinereus.

7. Myrmotherula brevicauda.

8. Heteropelma wallacii.

9. Pipra flavicollis.

10. Xipholena lamellipennis.

11. Galbula cyaneicollis.

12. Urogalba amazonum.

13. Bucco hyperrhynchus.

14. Campylopterus obscurus.

15. Thalurania furcatoïdes.

16. Pteroglossus bitorquatus.

17. Celeus jumana.

18. — multifasciatus.

19. Ara hyacinthina.

20. Conurus perlatus.

21. Brotogerys virescens.

22. Caica vulturina.

23. Leucopternis superciliaris.

\* In the subjoined list of species, registered from the Capim River and Tocantins, the Upper Amazonian forms are printed in italics:—

#### CAPIM RIVER.

Calliste boliviana.
Arremon silens.
Pitylus erythromelas.
Glyphorhynchus cuneatus.
Thamnophilus amazonicus.
Myrmotherula axillaris.

Myrmotherula axillaris.

—— brevicauda.

—— hawxwelli.

Ramphocænus melanurus.

Myiobius erythrurus.

Querula cruenta.

Galbula cyaneicollis.

Bucco tamatia, var.

Podager nacunda.

Pteroglossus wiedi.

Campephilus trachelopyrus.

Urochroma purpurata.

#### TOCANTINS.

Progne tapera. Tachyphonus melaleucus. + Spermophila lineola. Leptoxura cinamomea. Thamnophilus luctuosus. - nigrocinereus. Formicivora grisea. Iodopleura isabellæ. Pipra fasciata. Galbula rufo-viridis. Brachygalla inornata. Monasa nigrifrons. Hydropsalis trifurcata. Campephilus albirostris. Chloronerpes hæmatostigma. Chrysotis farinosa. Pionus menstruus.

It seems therefore, from what has been above stated, to be manifest that the mighty Amazons, though it may in some cases, as shown by Mr. Wallace and as noted above, separate allied species, does not constitute the true southern boundary of the Guianan avifauna, which is so remarkably distinct from that of the wood-region of Southeastern Brazil. To arrive at this boundary we must proceed further southwards nearly to the banks of the River Parnaiba, where the Amazonian wood-region terminates, and the high open country which forms the campos of Inner Brazil debouches upon the Atlantic. It is obvious that the wood-inhabiting species which form so large a proportion of the neotropical avifauna could never pass a barrier of this character, which offers as complete a physical obstacle to their passage as would a tract of sea of similar extent. We can therefore fully agree with the conclusions corresponding to those arrived at by Mr. Bates in his elaborate "Memoir on the Diurnal Lepidoptera of the Amazon-valley"\*, namely:-

(1) That the Para district belongs to the same zoological province as the Guianas, and has received its bird-population mainly from

that quarter.

(2) That in certain cases (amounting to about 17 per cent. of the whole number of species after excluding those of general distribution) variation has taken place, which has resulted in the production of new specific forms of greater or less degrees of distinctness.

(3) That in some of these cases the River Amazons has operated as a physical barrier, and has isolated these derivative forms from their Guianan allies, thereby leading to an accumulation of variations, which have ultimately resulted in the specific differences now observable.

2. Note on a New Species or Variety of Lemur in the Society's Gardens. By Dr. J. E. Gray, F.R.S., V.P.Z.S., &c.

# (Plate XXXI.)

PROSIMIA FLAVIFRONS, sp. nov.

Fur soft, silky, bright pale red brown; hinder part of the back rather darker. Nose and feet dark red brown. Circumference of the face, side of the chin, the throat, and chest pale reddish yellow. Iris of eyes grey. Male.

Hab. Madagascar; Zoological Society's Gardens, May 15, 1867. This is one of the Lemurs which differs from the other described species only in a variation in the shade and disposition of the colours. Whether these are varieties or distinct species must be left to be decided by those who can study them in their native haunts. The one here described is a full-grown male. The end of the tail in the living specimen is imperfect.

<sup>\*</sup> Trans. Entom. Soc. n. s. vol. v. pp. 223, 335.



TURDUS PHÆOPYCUS . (jur)



J Smit lith

M&N Hanhart Chromo lith.

- 1. HYLOPHILUS SEMICINEREUS.
- 2. \_\_\_\_ RUBRIFRONS.