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Birds
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A

SYNOPTICAL LIST

OF THE

ACCIPIITRES

(Diurnal Birds of Prey)

Comprising Species and Subspecies described up to 1919,
with their Characters and Distribution

BY

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1920



P R E F A C E

IN concluding my work on the *Accipitres*, a work which I fear has grown far beyond my original intention of publishing a mere list, I have to acknowledge my indebtedness to the sources from which I have received inspiration and help. In the first place I must acknowledge that a good deal of the systematic part and the generic characters have been borrowed from the late Richard Bowdler Sharpe's "Catalogue of the Accipitres in the Collection of the British Museum" (1874) of which his annotated copy, laid down on sheets and extended, came into my possession after his death, as also his interleaved copy of the *Accipitres* portion in Gray's "Genera of Birds," upon which he based his 1874 monograph. For permission to make use of the former work I have to thank the Trustees of the British Museum. I have also derived assistance from Mr. W. L. Sclater's work at the British Museum (Natural History) in so far as his had preceded mine, and his MS. Catalogue of the skins, which he kindly gave me permission to use. I have also to thank Mr. Bannerman, Mr. Chubb and other assistants at the Museum for help rendered during my studies there. To Lord Rothschild and Dr. Hartert for the use of the superb collections at Tring I am grateful, and to Dr. Hartert especially for much personal assistance. The Rev. F. C. R. Jourdain and a number of other friends have also given me help and encouragement in various ways in what, although an arduous and unprofitable undertaking, will I hope be of some permanent help in systematizing this interesting group of birds.

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An Asterisk (*) affixed indicates a change of name. *Italics* indicate a discarded name.

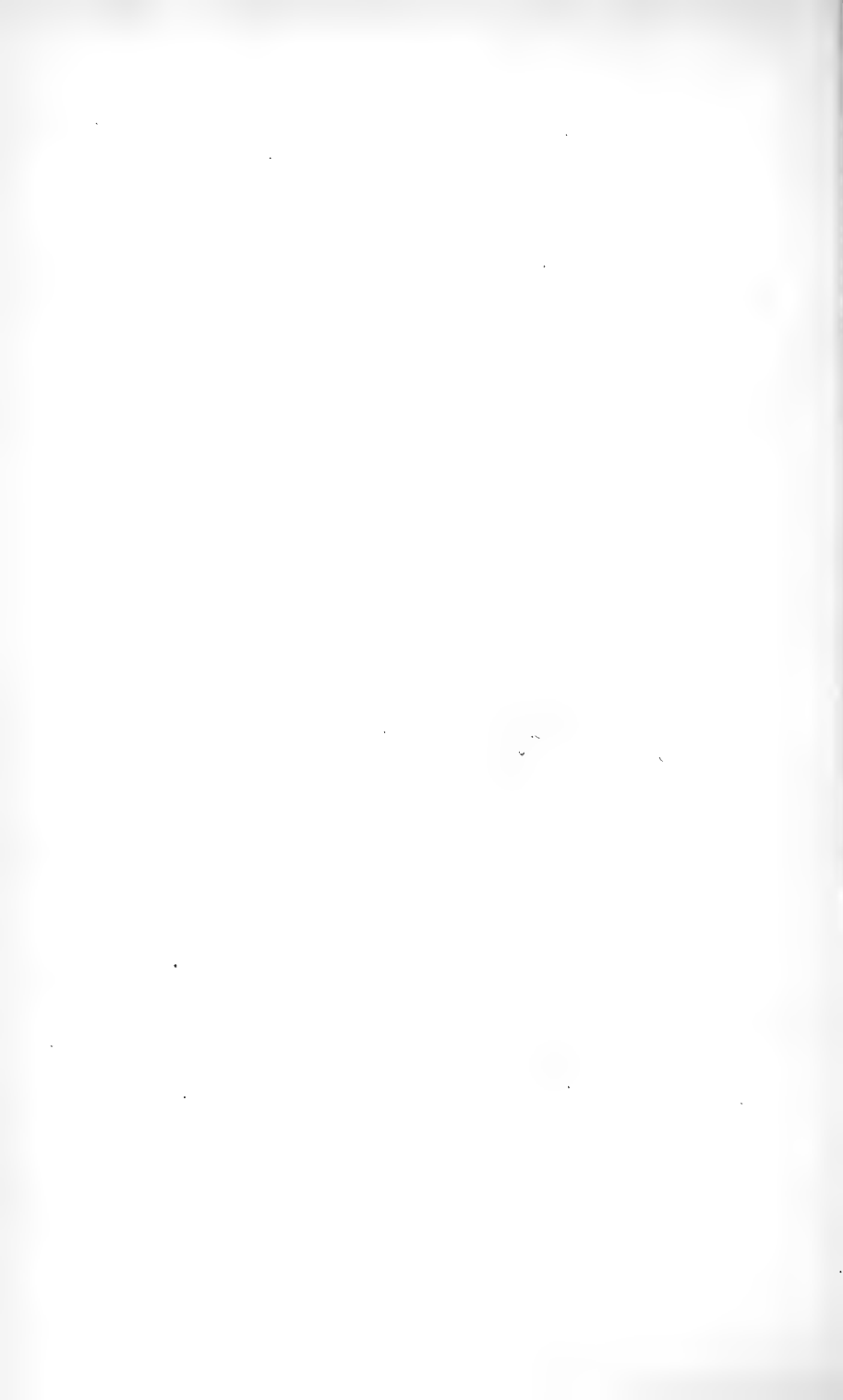
<p>Accipiter 30</p> <p>Ægyptius 4</p> <p>Aquila 63</p> <p>Archibuteo 53</p> <p>Astur 19</p> <p>Asturina 54</p> <p><i>Asturimula</i> 87</p> <p>Baza 106</p> <p>Busarellus 57</p> <p>Butastur 88</p> <p>Buteo 40</p> <p>Buteogallus 57</p> <p>Buteola 54</p> <p><i>Catharista</i> 2</p> <p>Cathartes 2</p> <p>Cerchneis 144</p> <p>Circaetus 76</p> <p>Circus 10</p> <p>Coragyps <i>vice</i> Catharista 2</p> <p>Dissodectes 161</p> <p>Dryotriorchis 76</p> <p>Elanoides 95</p> <p>Elanus 101</p> <p>Erythrotriorchis 39</p>	<p><i>Eutolmaetus</i> 67</p> <p>Eutriorchis 76</p> <p>Falco 120</p> <p>Gampsonyx 103</p> <p>Geranoaetus 40</p> <p>*Gymnogyps 3</p> <p>Gypaetus 62</p> <p>Gypagus 1</p> <p>Gypohierax 93</p> <p>Gypoictinia 101</p> <p>Gyps 4</p> <p>Haliæetus 90</p> <p>Haliastur 93</p> <p>Harpa 120</p> <p>Harpagus 105</p> <p>Harpyhaliæetus 60</p> <p>Harpyopsis 62</p> <p><i>Helotarsus</i> 89</p> <p>Henicopernis 111</p> <p>Herpetotheres 75</p> <p>Heterospizias 40</p> <p>Hieraaetus 67</p> <p>Hieracidea 142</p> <p><i>Hierofalco</i> —</p>
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† Mr. Sclater (Ibis, 1919, p. 777, Auk, 1920, p. 154) points out that, if the rules are strictly adhered to, *Vultur* Linn. must replace *Sarcorhamphus*, while the logical result is that *Vulturidæ* must replace *Cathartidæ* and the Old World (or true) Vultures be called *Ægyptidæ*.

ADDENDA ET CORRIGENDA (PART I.)

- Page 4 No. 7. In distribution for S.E. and N.E. read : S. and N.
 „ 4 „ 8. To distrib. add : Himalayas, Afghanistan.
 „ „ „ 9. For distrib. read : Plains of N. India.
 „ „ „ 10. In distrib. delete : Abyssinia.
 „ 6 Gen. X. For *Jorgos* read : *Torgos*.
 „ „ No. 14. For *Jorgos* read : *Torgos*.
 „ „ „ 15. For *Otogyps* read : *Torgos*.
 „ „ „ 17. To distrib. add : Canary Is., Cape Verd Is.
 „ 11 „ 36. In distrib. after Europe add : N.W. Africa (Morocco).
 „ 19 „ 59a. This is merely a common melanism of *M. gabar*.
 „ „ „ 60. For Siberia read : W. Asia (Asia Minor, Palestine, etc.).
 „ 20 „ 60b. To distrib. add : Japan.
 „ „ „ 60c. For *Astur gentilis candidissimus*, etc. read :
Astur gentilis albidus Menz. t.e.p. 438 (1882).
 „ 23 „ 70. After this article add :
 70a. *Astur iogaster rooki*, Roths. & Hart., Rook Is.
 Nov. Zool., xxi., p. 288 (1914). (Admiralty Is.)
 „ 26 „ 79a. After this article add :
 79b. *Astur clarus robustus*, Zeitz. S.A. Orn. Melville Is.,
 1, pt. I, p. 13 (1914). N. Terr. Austral.
 „ 29 „ 95. After this article [I cannot place from description, as it seems
 immature] add :
 95a. *Aster buergeri*, Reichenow, Orn. M.B. German New
 xxii., p. 29 (1914) Guinea
 (Mäomboberg).
 „ 30 „ 97. For N. Asia read : W. Asia.
 „ „ „ 97c. For distrib. read : N. and Central
 Asia from
 Turkestan to
 Japan ; in
 winter to India,
 Kashmir,
 Assam, Burma.
 „ 31 „ 98. For *Accipiter granti* read : *A. nisus granti*.
 „ „ „ 99b. After this article insert :
 99c. *Accipiter fuscus venator*, Wetmore, Pr. Porto Rico.
 Biol. Soc. Wash. xxvii., p. 119 (1914).
 „ 32 „ 102a For pp. 171-6, read : p. 173.
 „ „ „ 102b. Delete the word : *Minullus*.
 [Does not appear to be a tenable species, however,
 and is most probably a melanism of No. 63a,
Astur tachiro sparsimfasciatus.]
 „ 36 „ 119b. Delete the word : *virgatus*. [Not a subspecies of *A. virgatus*.]
 „ 37 „ 119d. Not separable from No. 119. (Hartert).
 „ 15 16 . . . To be cancelled and following leaf substituted :



ADDITIONAL SPECIES AND SUBSPECIES.

- 29a. *Milvago chimachima cordata* Bangs and Panama.
Penard, Bull. M.C.Z., lxii., pp. 25- (1918).
- 30a. *Milvago chimango temucoensis* W. Sclat., Bull. S. Chile.
B.O.C., xxxviii., p. 43 (1918). [*Palal, near*
Temuco, prov. Cantin, type in B.M.]
- 52a. *Climacocercus plumbeus* (W. Sclat.), Bull. N.W.
B.O.C., xxxviii., p. 44 (1918). [*Carondelet,*
Rio Bogota, prov. Esmeraldas, type in B.M.]
- 54c. *Geranospizias cærulescens balzarensis* W. Ecuador
Sclat., Bull. B.O.C., xxxviii., p. 44 (1918). (Guayas
[*Balzar Mtns., Guyas Prov., type in B.M.*] Prov. &
Puna I.)
- 63d. *Astur tachiro tenebrosus* Lönnberg, Arch. f. Brit. E.
Zool., xi., No. 5, p. 2 (1917). [*Loudiani,* Africa.
B.E.A.]
- 123a. *Accipiter bicolor schistochlamys* Hellmayr, Bull. W. Ecuador.
B.O.C., xvi., p. 82 (1906). [*Nanegul, W.*
Ec., type in Tring Mus.]
- 125a. *Accipiter beniensis* Lönnberg, Arch. f. Zool., E. Congo.
x., No. 24, p. 13 (1917). [*Beni.*]
- 158i. *Rupornis magnirostris insidiatrix* Bangs and Colombia.
Penard, Bull. M.C.Z., lxii., pp. 25- (1918).
- 166a. *Leucopternis ghiesbreghtii costaricensis* W. Sclat., Nicaragua.
Bull. B.O.C., xxxix., p. 76 (1919). [*Carillo,* Costa Rica.
Costa Rica, type in B.M.] Panama.
- 204a. *Spizaetus batesi* W. Sclat., Bull. B.O.C., S. Cameroon.
xxxix., p. 87 (1919). [*Bitye, Ja River,*
type in B.M.]

CORRIGENDA.

- Pt. 1 p. 3 Gen. V. For PSEUDOGRYPHUS read: GYMNOGYPS Less. (1842).
- „ „ „ 3. „ VI. For SERPENTARIUS read: SAGITTARIUS Herman (1783):
- „ „ „ 4 No. 8b. For *Gyps fulvus kolbi* etc., read:
Gyps fulvus coprotheres (Forst.) Naturgesch. African.
 Vögel, p. 35 (1798). [*S. Africa.*]
- Pt. 2 p. 46 No. 139. For *Buteo jakal*, etc., read:
Buteo rufofuscus rufofuscus (Forst.) Naturgesch.
 African. Vögel, p. 59 (1798). [*S. Africa.*]
- „ „ „ 46 „ 139a. For *Buteo jakal archeri* read:
Buteo rufofuscus archeri.
- „ „ „ 72 „ 200c. Delete article and read:
 Smaller and lacking 2 long crest feathers.
Spizaetus nipalensis fokiensis W. Sclat., S. China.
 Bull. B.O.C., xl., p. 37 (1919). [*Fokien* (breeding)
Prov., type in B.M.]

[Inserted by error in pt. 2 without ref. to publication,
 owing to delay in pub. of Bull. B.O.C.]

With the authors complement

PART I.—JULY, 1919.

PRICE 4/-

A
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(SARCORHAMPHUS TO ACCIPITER)

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A
SYNOPTICAL LIST
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PART I.

ORDER CATHARTIDIFORMES.

Fam. I. CATHARTIDÆ (New World Vultures).

Nostrils perforated; head, neck and forepart of breast bare; hind toe short and weak.

Gen. I. SARCORHAMPHUS Dum. (1806).

Size large, length 38 in.; head with an erect fleshy caruncle; outer toe about equal to inner.

Plumage black, with a whitish wing patch.

1. *Sarcorhamphus gryphus gryphus* (Linn.), Syst. Nat., i., p. 86 (1758). Andes of S. America.
 Great Condor.

Plumage brown [doubtfully distinct].

- 1a. *Sarcorhamphus gryphus equatorialis* Sharpe, Cat. Birds B.M., i., p. 21 (1874). Ecuador.
 Brown Condor.

Gen. II. GYPAGUS Vieill. (1816).

Head with fleshy caruncle; outer toe longer than inner.

Plumage black and cream colour; size moderate, length 27 in.

2. *Gypagus papa* (Linn.), S.N., i., p. 86 (1758). S. America,
 King Vulture. N. to Mexico.

Gen. III. CATHARISTA Vieill. (1816).

Head without caruncle ; tail square.

Plumage black : larger : wing 17.50 ; tail 8.50 ;
tarsus 3.35 in.

- √ 3 *Catharista urubu urubu** (Vieill.), Ois. d'Am., N. & Central
Sept., pl. xi. (1807). America,
Black Vulture. Cuba,
Jamaica.

Smaller : wing 16.30 ; tail 8 ; tarsus 3.10 in.

- 3a. *Catharista urubu fatens* (Wied), Beitr. Naturg. S. America.
Bras., iii., p. 58 (1830).
S. American Black Vulture.

Gen. IV. CATHARTES Illiger (1811).

Tail rounded.

Plumage black : larger : length 30 ; wing 21.70 ;
tail 11.50 in. ; tarsus 2.90 in.

- 4, *Cathartes aura aura* (Linn.), S.N., i., p. 86 Tropical
(1758). S. America
S. American Turkey Vulture. from
Colombia to
Chile & Brazil.

Smaller : length 27 ; wing 21 ; tail 10 ;
tarsus 2.35 in.

- 4a. *Cathartes aura septentrionalis* (Wied), J.f.O., N. America
1856, p. 119. (United
N. American Turkey Vulture. States) S. to
Honduras.

Median wing coverts and secondaries very
distinctly shaded with whitish ashy.

- 4b *Cathartes aura falklandicus* (Sharpe), Ann. Falkland Is.,
N.H., (4), xi., p. 133 (1873). Patagonia,
Falkland Island Turkey Vulture. Chile.

Head yellow ; " shafts of quills and tail-
feathers brown above, white below " [doubtful
form].

- 4c. *Cathartes aura perniger* (Sharpe), Cat. Bds., Venezuela,
B.M., i., p. 25 (1874). Guiana,
Venezuelan Turkey Vulture. N. Brazil,
Peru.

* *Cathartes atratus* (Bartr.) of most authors.

Head orange ; shafts to primaries above and below white*.

- 4d. *Cathartes aura urubitinga* Pelz., Sitz. Akad. Wien, xlv., p. 7 (1861).
 Yellow-necked Turkey Vulture.
- Brazil N. to Surinam, Brit. Guiana, Venezuela & E. Mexico (?)

Gen. V. PSEUDOGRYPHUS Ridgw. (1874).

Head without caruncle ; tail square.

- Size of *Sarcorhamphus* ; length 40 in. ; wing 30.
5. *Pseudogryphus californicus* (Shaw & Nodder), Nat. Misc., ix., p. 1, pl. 301 (1797).
 Californian Condor.
- S. California to lower California.

ORDER ACCIPITRIFORMES.

Sub-Order I. SERPENTARIII.

Fam. I. SERPENTARIIDÆ.

Both inner and outer toes connected with middle one by well-developed basal web.

Gen. VI. SERPENTARIUS Cuvier (1798).

Head crested.

- Darker.
6. *Serpentarius serpentarius serpentarius* (Miller), Var. Subj. Nat. Hist., pl. 28, (1785).
 Secretary Bird.
- S. & E. Africa N. to Ben guela on W. and Zambesi on E.
- Paler.
- 6a. *Serpentarius serpentarius gambiensis* Ogilby, P.Z.S., 1835, p. 105.
 Northern Secretary Bird.
- Senegambia Sudan to Shoa.

Sub-Order II. ACCIPITRES.

Fam. I. VULTURIDÆ (Old World Vultures).

Head and neck bare, or with short down only, no feathers ; nostrils not perforated.

* Cory ("Bds. of Bahama," p. 134, 1890) says shafts of *C. aura septentrionalis* are "yellowish externally" in winter plumage. I believe *C. a. perniger* and *C. a. urubitinga* to be identical ; both have the head yellow and ranges intermingle.

Gen. VII. ÆGYPIUS Savigny (1809).

Nostrils rounded.

Size large, length 42 in. ; plumage blackish brown ; ruff of feathers round hind neck.

7. *Ægyptius monachus* (Linn.), S.N., i., p. 122 (1766).
Cinereous Vulture
- S.E. Europe,
N.E. Africa,
C. Asia to
India &
China.

Gen. VIII. GYPS Savigny (1809).

Nostrils perpendicular, rather oval ; tail with 14 feathers

Size large, length 40 in. ; plumage stone-buff ; neck ruff of white down ; head with white down.

8. *Gyps fulvus fulvus* (Gmel.), S.N., i., p. 249 (1788).
Griffon Vulture.
- S. Europe,
(acc. Britain),
N. Africa,
Arabia,
Palestine.

Plumage paler and more isabelline reddish.

- 8a. *Gyps fulvus fulvescens* Hume, Ibis, 1869,
p. 356.
Indian Griffon.
- N.W. India,
Himalayas,
Afghanistan.

Paler than *G. fulvus fulvus*, especially below, and shaft stripes nearly obsolete.

- 8b. *Gyps fulvus kolbi* (Daud.), *Traité*, ii., p. 15 (1800).
Kolbe's Griffon.
- S. Africa,
N. to Zam-
besi and
Damaraland.

Plumage above isabelline whitish ; below light buff with broader whitish shaft stripes.

9. *Gyps himalayensis* Hume, *Rough Notes*, i.,
p. 14 (1869).
Himalayan Griffon.
- Turkestan,
Himalayas,
Thibet.

Down on head yellow ; plumage above blackish brown with whitish edgings ; below creamy buff ; crop-patch dark brown.

10. *Gyps rueppelli rueppelli* (Brehm), *Naum.*, 1852,
heft 3, p. 44.
Rueppell's Vulture.
- N.E. Africa,
Abyssinia,
N. Nigeria,
Senegambia.

- Plumage above browner ; below whitish.
- 10a. *Gyps rueppelli erlangeri*, Salvad., Bol. Mus. Abyssinia,
Torino, xxiii., No. 576 (1908). Erythraea,
Erlanger's Vulture. Somaliland.
- Head bare ; ruff and upper parts dark brown
with fulvous central streaks ; rump white ;
below light brown with white streaks ; crop-
patch brown.
11. *Gyps indicus indicus* (Scop.)(*), Del. Faun. et India, Indo-
Flor. Insubr., ii., p. 85 (1786). Chinese
Indian Long-billed Vulture. countries,
Malay
Peninsula.
- Above pale earthy brown ; below whity brown ;
crop-patch dark brown ; ruff white (Hume).
- 11a. *Gyps indicus pallescens* Hume, Stray Feathers, N.W. India.
i., p. 150 (1873).
Pallid Vulture

Gen. IX. GYMNOGYPS Less. (1831).

Tail of 12 feathers.

- Size large, length 30 in. ; above and crop-
patch black ; ruff white, rather scanty ; rump
white ; below chocolate brown.
12. *Gymnogyps bengalensis* (Gmel.), S.N., i., p. 245 India, Indo-
(1788). Chinese
Indian White-backed Vulture. countries,
Malay
Peninsula.
- Above and crop-patch dark brown ; below
pale brown, with yellowish-white shaft lines.
13. *Gymnogyps africanus africanus* (Salvad.), N.E. Africa,
Nat. Stor. R. Accad. Torin., 7th May, 1865, Khartoun to
p. 133. Abyssinia &
African White-backed Vulture. Upper White
Nile.
- Plumage more greyish.
- 13a. *Gymnogyps africanus schillingsi* Erlanger, Orn. German
Mb., xi., p. 22 (1903). E. Africa.
- Paler.
- 13b. *Gymnogyps africanus fuelleborni* Erlanger (t.c.) Nyasaland
to Angola.

* Reichenow's *Gyps cinnamomeus* from *Alatau* (Orn. Mb., 1907,
pp. 30-31) appears to be another subspecies [doubtful] of *G. fulvus*.

Still paler.

- 13c. *Gymnogyps africanus zechi* Erlanger (t.c.) Togoland.

Gen. X. JORGOS Kaup (1828).

Head with fleshy folds and a neck-lappet; tarsus longer than middle toe.

Above and crop-patch brown; ruff of brown feathers on hind neck; below clothed with white down, with brown lanceolate feathers on breast and abdomen.

14. *Jorgos tracheliotus* (Forst.) Levaillant, Reise Afr., ii., p. 362, pl. 12 (1791). Sociable Vulture. S. Africa. Egypt, Abyssinia, Upper White Nile, cas. in Europe.

Above and crop-patch black; across breast a circlet of white down; below black; ruff small, black.

15. *Otogyps calvus* (Scop.), Del. Faun. Insubr., ii., p. 85 (1786). Pondicherry Vulture. Turkestan, India, Burma, Siam, Cambodia.

Gen. XI. LOPHOGYPS Bp. (1854).

Head covered with down; no neck-lappet.

Plumage blackish brown, rump paler; ruff dark brown; crop-patch and under parts white.

16. *Lophogyps occipitalis* (Burch.), Trav., ii., p. 329 (1824). White-headed Vulture. N.E. Africa & S. Africa, Senegal on W.

Gen. XII. NEOPHRON Savigny (1808).

Forepart of chest bare.

Plumage white; primaries black; length 25 in.; wing 19.2.

17. *Neophron percnopterus percnopterus* (Linn.), S.N., i., p. 87 (1758). Egyptian Vulture. S. Europe, Africa S. to Mashonaland, Mediterranean Persian sub-region to N.W. India.

- [Doubtfully distinct.]
- 17a. *Neophron percnopterus rubripersonatus* Zaruday & Harms., Orn. Mb., x., pp. 52-3 (1902). Persian Baluchistan.
- Smaller than typical form; length 21 in.; wing 15.5.
- 17b. *Neophron percnopterus ginginianus* (Lath.), Ind. Orn. i., p. 7 (1790). Indian Peninsula, very rare in Ceylon.

Gen. XIII. NECROSYRTES Gloger (1842).

With a fur-like chest-patch.

- Plumage chocolate brown; hind neck covered with whitish down; crop-patch creamy brown, encircled with white down. Length 24 in.; wing 18.50.
18. *Necrosyrtes monachus monachus* (Temm.), Pl. Col., i., pl. 222 (1823). N.E. & E. Africa, Northern Hooded Vulture. W. Africa.
- Larger; length 26 in.; wing 20 in.; with shorter and stouter bill.
- 18a. *Necrosyrtes monachus pileatus* (Burch.), Trav., ii., p. 105, (1824). S. Africa. Hooded Vulture.

Fam. II. FALCONIDÆ.

Crown of head always clothed with feathers, its sides either feathered or bare; outer toe not reversible.

Sub-Fam. I. POLYBORINÆ.

Toes connected near base by interdigital membrane; sides of face mostly bare.

Gen. XIV. POLYBORUS Vieill. (1816).

Nostrils oval. Size large (22-26 in.).

- Above and below blackish brown with narrow whitish bars; tail whitish with a terminal blackish band; face, neck and breast white with blackish bars.
19. *Polyborus plancus* (Mill.) Var. Subj. Nat. Hist., Pl. 17 (1778). S. America, Patagonia to 20° S. lat. on W. & Amazon on E. side. Common Caracara.

- Above black, mantle only with creamy buff wavy bars ; upper tail-coverts white ; tail buff with 13 or 14 black bars and a broad terminal band.
20. *Polyborus cheriway* (Jacq.), Beitr., p. 17, tab. 4 (1784).
Audubon's Caracara. S. United States, Central America, Northern S. America.
- Paler insular race.
- 20a. *Polyborus cheriway pallidus* Nelson, Pr. Biol. Soc., Wash., xii., p. 8 (1898).
Tres Marias Caracara. Tres Marias Is., W. Mexico.
- General plumage marked with transverse bars of brownish black and brownish white ; crown, wing-coverts, terminal portion of primaries and terminal band on tail blackish brown.
21. *Polyborus lutosus* Ridgw., Bull. U.S. Geol. Surv. Terr., i, p. 459 (1875).
Guadeloupe Caracara. Guadeloupe Is., W. Mexico.
- Gen. XV. IBYCTER Vieill. (1816).
- Head generally with recurved crest.
Nostrils round. Size variable (16-25 in.).
- Plumage black with greenish reflections ; a white band across base of tail.
22. *Ibycter ater* (Vieill.), Analyse, p. 22 (1816).
Yellow-throated Caracara. Amazon District of S. America.
- Plumage black with greenish reflections, but abdomen white ; face and throat deep red.
23. *Ibycter americanus* (Bodd.), Table Pl. Erl., p. 25 (1783).
Red-throated Caracara. Tropical S. America and Central America, from Brazil to Guatemala.
- Plumage black with greenish reflections, but upper tail coverts, base and tip of tail and abdomen white.
24. *Ibycter megalopterus* (Meyen), Nov. Act. Cæs., xvi., Suppl., i., p. 64, pl. 7 (1834).
Mountain Caracara. S. America, Pacific side of Andes.

- Above brownish black; upper tail-coverts, base and tip of tail and entire under parts white; sides irregularly marked with black.
25. *Ibycter albigularis* (Gould), P.Z.S., 1837, p. 9. Patagonia.
White-throated Caracara.
- Skin of face and throat wrinkled and orange colour; Plumage black; rump, upper tail-coverts, tips of quills, a broad terminal band on tail, and vent white; breast with drop-shaped white marks.
26. *Ibycter carunculatus* (Des Murs), Rev. et Mag. Zool., 1853, p. 154. Highlands of Ecuador and Colombia.
Carunculated Caracara.
- Black; rump, upper tail-coverts and base and terminal band on tail white; below white with band of black across lower throat.
27. *Ibycter circumcinctus* Scott, Auk, xxvii., 1910, p. 152. Patagonia, E. of Andes.
Scott's Caracara
- Above and below black; nape, outer upper tail-coverts, throat and breast with lanceolate white stripes; tail broadly tipped with white.
28. *Ibycter australis* (Gmel.), S.N., i., p. 259 (1788). Falkland Is.
Foster's Caracara.
- Gen. XVI. MILVAGO Spix. (1824).
Feathers on back of head erectile, forming 2 tufts; size small (about 16 in.).
- Above brown, with pale ashy margins; head, neck, basal two-thirds of tail, and under parts white.
29. *Milvago chimachima* (Vieill.), N. Diet., v., p. 259 (1816). Brazil and Amazonia to Guiana, Colombia & Panama.
Yellow-headed Caracara.
- Above rufous brown; head and neck with black central streaks; upper tail-coverts white; tail with broad subterminal dark band; below brownish ochre with dark shaft stripes.
30. *Milvago chimango* (Vieill.), N. Diet., v., p. 260 (1816). S. America from S.E. Brazil to Tierra del Fuego.
Chimango Caracara.

Sub-Fam. II. ACCIPITRINÆ.

Outer toe connected to middle one by an interdigital membrane; tibia and tarsus about equal in length.

Gen. XVII. POLYBOROIDES Smith (1830).

Lores and sides of face bare.

Plumage silvery grey, lower back and rump and abdomen white, narrowly barred with black; quills and tail chiefly black, latter with a broad median band of white. Length 23.50-27 in.

31. *Polyborides radiatus* (Scop.), Del. Faun. et Flor. Madagascar. Insubr., ii., p. 85 (1786).
Madagascar Gymnogene.

General plumage dark grey; breast and abdomen broadly barred with black and white; tail black, tipped with white, with a broad band of dull white and an indistinct one nearer base.

32. *Polyborides typicus* Smith, S. Afr. Q. J., i., p. 107 (1830). S. Africa,
W. Africa,
N.E. Africa
(Abyssinia & White Nile).
Banded Gymnogene.

Gen. XVIII. CIRCUS Lacep. (1806).

Sides of face feathered; with distinct facial ruff; lores furnished with bristles; nostrils oval with no bony excrescence; tarsus reticulated behind; size moderate; length (males) 17-22.50 in.; females 19-24.50 in.

KEY TO NATURAL GROUPS AND SPECIES (MALES).

A. Above bluish ashy, or greyish.

a. Thighs uniform white.

Throat and chest bluish ashy; upper tail-coverts white.

33. *Circus cyaneus cyaneus* (Linn.), S.N., i., p. 126 (1766). Europe and
Siberia, N.E.
Africa, India,
China, Japan
(winter).
Hen Harrier.

- ✓ More brownish ashy above and below.
- 33a. *Circus cyaneus hudsonius* (Linn.), S.N., i., p. 128 (1766).
Marsh Hawk. N. America,
Central
America &
W. Indies
(winter).
- Adult plumage unknown.
34. *Circus macroscelis* A. Newton, P.Z.S., 1863,
p. 180. Madagascar.
Madagascar Harrier.
- Throat and chest white; upper tail-coverts
white, banded with ashy grey.
35. *Circus macrurus* (S. G. Gmel.), N. Comm. Europe;
Petrop., xv., p. 439, pls. viii., ix. (1771). Africa,
Pallid Harrier. India,
Burma, China
in winter.
- b. Thighs white, with rufous streaks or spots.
- Throat and chest pale bluish grey; upper
tail-coverts white, tipped with deep ash colour.
36. *Circus pygargus pygargus* (Linn.), S.N., i., p. 89 Europe;
(1758). Palestine,
Montagu's Harrier. Africa,
India, China
in winter.
- [Doubtfully distinct.]
- 36a. *Circus pygargus abdullæ* Floericke, Orn. Mb., Caucasus.
iv., p. 155 (1896).
- c. Thighs white, barred across with orange
rufous.
- Throat and chest white, barred with orange
tawny; upper tail-coverts white.
37. *Circus cinereus* Vieill., N. Dict., iv., p. 434 Tropical and
(1816). temperate
Cinereous Harrier. S. America,
migrating to
Straits of
Magellan &
Falkland Is.
- d. Thighs rufous, either uniform or spotted and
margined with white.

- Throat and chest rufous with white spots ; upper tail-coverts ashy brown, tipped and spotted with white.
38. *Circus assimilis assimilis* Jard. and Selb., Ill. Orn., Ser. i., pl. 51 (1828). Spotted Harrier. E. Australia, Tasmania, Celebes.
- [Doubtful form.] Said to be smaller and darker.
- 38a. *Circus assimilis rogersi* Math., Nov. Zool., xviii., p. 244 (1912). Lesser Spotted Harrier. N.W. Australia.
- B. Above brown.
- a. Thighs white, with rufous streaks or spots.
- Throat and chest white streaked with pale rufous brown ; upper tail-coverts white, slightly spotted with pale rufous.
39. *Circus approximans approximans* Peale, U.S. Explor. Exped., viii., p. 64 (1848). Fijian Harrier. Fiji Islands.
- Larger.
- 39a. *Circus approximans gouldi* (Bp.), Consp., i., p. 34 (1850). Allied Harrier. S. & E. Australia, Tasmania.
- Smaller.
- 39b. *Circus approximans inexpectatus* Math., Nov. Zool., xviii., p. 245 (1912). Little Allied Harrier. N.W. & N. Australia.
- Smaller and darker than *C. a. gouldi*.
- 39c. *Circus approximans drummondi* Math. & Ireland, Ibis, 1913, p. 419. New Zealand Harrier. New Zealand.
- b. Thighs rufous, the feathers margined with white.
- Throat and chest brown, the feathers margined with white ; abdomen rufous ; upper tail-coverts orange rufous, tipped with white.
40. *Circus ranivorus* (Daud.), Traité, ii., p. 170 (1800). S. African Marsh Harrier. S. Africa below 10° S. lat.

- Throat and chest creamy buff, the latter streaked with brown ; upper tail-coverts white.
41. *Circus æruginosus æruginosus* (Linn.), S.N., i., p. 91 (1758).
Marsh Harrier. Europe, rare in Siberia, but in winter to India, China, Japan and Philippines, also Africa.
- Much brighter coloration, more black and white : (♀ lighter).
- 41a. *Circus æruginosus harterti*, Zedl., J.f.O., 1914, p. 133.
Hartert's Harrier. N. Africa.
- C. Above black or blackish.
- a. Thighs white.
- Throat and chest white, streaked with black ; upper and under tail-coverts white.
42. *Circus maillardi* Verr. in Maill., l'Île de la Réunion, ii., p. 12 (1863).
Maillard's Harrier. Reunion Is., Comoro Is.
- Markings on throat and chest browner and broader ; under tail-coverts also streaked.
43. *Circus wolfi* Gurney, P.Z.S., 1865, p. 823, pl. xlv.
Wolf's Harrier. New California, New Hebrides.
- Throat and chest white, streaked with black ; upper tail-coverts white with remains of ashy brown bars.
44. *Circus spilothorax* Kaup, Contr. Orn., 1850, p. 59.
Eastern Marsh Harrier. E. Siberia, in winter to E. China, Indo-Burman countries, Malay Archipelago.
- The same, but with distinct transverse spots of dusky cinereous on upper tail-coverts.
45. *Circus spilothorax* Salvad. and d'Alb., Ann. Mus. Civ. Genov., vii., p. 807 (1875).
New Guinea Harrier. S.E. New Guinea.

- Throat and chest black; upper tail-coverts barred with black.
46. *Circus melanoleucus* (Forst.), Indisch. Zool., p. 12, pl. xi. (1781). Pied Harrier. E. Siberia, Mongolia, E. and S. India, Burma, Malay Pen., Borneo, Philippines (winter).
- Throat and chest black; upper tail-coverts white with remains of rufous bars.
47. *Circus buffoni* (Gmel.), S.N., i., p. 277 (1788). Long-winged Harrier. E. side of S. America, from Magellan Str. to Brit. Guiana and Venezuela, Trinidad.
- b. Thighs black.
- Throat and chest brownish black; upper tail-coverts white, the lower ones spotted with black.
48. *Circus maurus* (Temm.), Pl. Col., i., pl. 461 (1828). Black Harrier. S. Africa.

FEMALES (usually much different from males).

A. Above brown.

a. Thighs white.

Below white, striped with dark brown; upper tail-coverts white, barred with dark brown. *C. melanoleucus*.

b. Thighs white, with streaks or spots of rufous or brown.

Below tawny buff, streaked with brown; upper tail-coverts white. *C. cyaneus*.

Below nearly white, streaked with brown. *C. hudsonius*.

Below creamy buff, with pointed spots of rufous brown; upper tail-coverts white. *C. spilonotus*.

Below buffy white, with rufous centres to the feathers; upper tail-coverts white. *C. pygargus*.

Below creamy white, with streaks of brown; upper tail-coverts white, barred with dark brown. *C. macrurus*.

Corrected

- c. Thighs white, barred with orange tawny.
Breast brown with white spots, rest of under parts barred with orange tawny and white; upper tail-coverts white, barred with reddish. *C. cinereus.*
- d. Thighs rufous.
Below dark brown, with a white band, marked with brown, across breast; upper tail-coverts white, tinged with grey and rufous. *C. aruginosus.*
Below brown, streaked with white; upper tail coverts rufous, tipped with white. *C. rufivorus.*

Gen. XIX. MICRASTUR Gray (1841).

Nostrils round, with a bony excrecence; tarsi and feet large and robust; tarsus reticulated behind; in front covered with small scutellae.

Size large, length, ♂, 20 in., wing 10.4; ♀, about 24 in.: above blackish with white nuchal collar; tail with 3 white bands; below white with black shaft lines; juv. below barred; intermediate plumage below pale ochraceous fawn, as well as sides of face and nuchal collar.

49. *Micrastur melanoleucus melanoleucus* (Vieill.) S. Mexico to Colombia, Venezuela, Brazil and Paraguay.
N.D. x., p. 327 (1817). [*Paraguay.*]
Collared Harrier-Hawk
- Much smaller; wing ♂ [?] 8.60 in.; tarsi and feet much smaller and weaker; white tail bands above partly obscured by brown patches in centre and below less extensive; those on outer feathers only 4 in number in place of 6 in typical form.
- 49a. *Micrastur melanoleucus buckleyi*, subsp. nov. Ecuador.
[ad., ♂?, Sarayacu, Ec. Feb. 1880, Buckley, B. Mus. coll. No. 87, 5. 1. 122.]
- Size medium, length (♀) 17.5; wing 9.8; above slate; tail with 3 bands of ashy-brown showing white below; below white with black shaft lines; no nuchal collar.
50. *Micrastur mirandollei* (Schl.), Nederl. Tijdschr., Upper E.
i., p. 131 (1863). [*Dutch Guiana.*]
Mirandolle's Harrier-Hawk. Peru, Guiana, Panama.

Gen. XIXA. CLIMACOCERCUS CAB. (1845.)

Feet very much smaller; tarsi more slender, with broad and regular scales in front.

Size small, length (♂) 13 in.; wing 6.9. Above slate or rufous (rufous phase); tail with 3 greyish white bands; below greyish white, barred with greyish black; throat white, fore-neck rufous.

51. *Climacocercus ruficollis* (Vieill.), N. Diet., x., p. 322 (1817). [*S. America.*] Venezuela, Guiana, Brazil, Paraguay.

Above chocolate brown; tail blackish, with 3 narrow white bands; below thickly barred with black and white; throat brown.

- 51a. *Climacocercus zonothorax* Cab., J.f.O., 1865, p. 406. [*Porto Cabello, Venez.*] Colombia, Venezuela.
Barred Harrier-Hawk.

Above (male) ashy brown (female blackish); tail blackish with 3 irregular white bands (4 in immature); below whitish, breast finely barred with wavy blackish lines; lower abdomen white.

52. *Climacocercus gilvicollis* (Vieill.), N. Diet., x., p. 323 (1817). [*Patr. ign.: Cayenne?*] Colombia & Amazonia to E. Peru and to 20° S. lat. in Brazil.
White-throated Harrier-Hawk.

Above blackish; tail with 3 irregular white bands; throat and cheeks pale grey; below dull white, closely barred down to thighs with blackish.

53. *Climacocercus guerilla**, (Cass.), Pr. Phil. Acad., 1848, p. 87. [*Talapa, Mex.*] Mexico to Colombia, Venezuela, Brazil, and Ecuador.
Grey-throated Harrier-Hawk.

Gen. XX. GERANOSPIZIAS Sundev. (1873).

Tarsus scaled behind; thighs without overhanging tuft of feathers; ridge of bill greater than half length of middle toe (without claw); commissure slightly festooned.

Size moderate (length 16.5-24.5 in.).

* In revising this group the forms *jugularis* and *interstes* appear to be untenable and are therefore omitted.

Plumage slaty blue, with little trace of white cross bars except on thighs and under wing-coverts ; tail ochraceous, with 2 broad black bands.

54. *Geranospizias cærulescens cærulescens* (Vieill.), N. Dict., x., p. 318 (1817).
Grey Crane-Hawk. Venezuela, Guiana, W. Brazil, Peru, Bolivia Argentina.

Under parts barred with whitish.

- 54a. *Geranospizias cærulescens gracilis* (Temm.), Pl. Col., i., pl. 91 (1824).
Wood Hawk. Brazil, Paraguay.

Like *G. c. cærulescens*, except that general plumage is slaty black.

- 54b. *Geranospizias cærulescens niger* (Du Bus), Bull. Ac. Roy. Brux., xiv., p. 103 (1847).
Black Hawk. Central America from S. Mexico to Panama.

Gen. XXI. UROTRIORCHIS Sharpe (1874).

Tail (13 in.) longer than wing (12 in.), very strongly graduated ; size large (length 24 in.).

Above blue grey, lighter on head and nape ; upper tail-coverts pure white ; tail very long, black above, greyish below, irregularly banded and tipped with white ; below leaden grey.

55. *Urotriorchis macrurus* (Hartl.), J.f.O., 1855, p. 353.
W. African Grey Hawk. W. Africa, Gold Coast to Gaboon.

Gen. XXII. PARABUTEO Ridgw. (1874).

Nostrils with bony tubercle near upper margin ; thighs with overhanging tuft of feathers ; tarsus scaled almost right across and feathered further down than length of middle toe.

Size large (length about 23 in. ; wing about 12-14 in.).

General colour blackish brown, variegated by lighter spotting ; lesser wing-coverts and thighs rufous ; tip and base of tail and also tail-coverts white.

56. *Parabuteo unicinctus unicinctus* (Temm.), Pl. Col., pl. 313 (1824).
One-banded Buzzard-Hawk S. America, northward from Chile on W. and Buenos Ayres on E.

General colour sooty black, tinged with chestnut on rump. (Female more brownish.)

- 56a. *Parabuteo unicinctus harrisi* (Audub.), B. Am., pl. ccxcii., 1831; Orn. Biog., v., p. 30.
Harris's Buzzard-Hawk. Central and N. America from Panama to Southern U.S.

Gen. XXIII. MELIERAX Gray (1840).

Tarsus scaled in front, reticulated on outer aspect, not feathered so far down as length of middle toe.

Size large (length 21 in.; wing 14.8); general plumage bluish ash; quills black; wing-coverts, secondaries, upper tail-coverts and base of tail whitish freckled with grey; outer tail-feathers white, barred with black; belly white, narrowly barred with blackish.

57. *Melierax canorus canorus* (Rislach), in Thunb., Diss. Ac., iii., p. 264 (1799).
Chanting Goshawk. S. Africa below 15° S. lat.

Size similar; tail-coverts white, with numerous bars of slaty grey; tail blackish, with 4 white bands, the middle feathers unbarred; below white, minutely barred with ashy grey.

- 57a. *Melierax canorus metabates*, Heugl., Ibis, 1861, p. 72.
Many-banded Hawk. N.E. Africa, Sudan to Mogador, W. Arabia.
[= *M. polyzonus* of authors.]

Much lighter form.

- 57b. *Melierax canorus neumanni*, Hart., Vög. Pal. Fauna, ii., p. 1165 (1914).
Neumann's Goshawk. Nubia to Sudan & Hausaland.

Rather smaller; above darker slate; throat, chest and wings, light grey; below white, with narrow blackish bars; tail black, tip and upper tail-coverts white.

- 57c. *Melierax canorus poliopterus* Cab., in Deeken's Reise, iii., Vog., p. 40 (1869).
E. African Goshawk. E. Africa, Somaliland to Kilimanjaro.

Much darker below than *M. c. metabates*, which has white bars rather broader than dark bars, reverse being case in this species.

58. *Melierax mehowi* Cab., J.f.O., 1882, p. 229. Angola, Damara-land to Mashonaland, Nyasaland.

Size small (length 11.5-13.6; wing 7.1-8.3); above and throat ashy grey; rump blackish, upper tail-coverts white; quills and tail brown banded with black; below white barred with ashy grey.

59. *Melierax gabar* (Daud.), *Traité*, ii., p. 89 (1800). S. Africa, E. & N.E. Africa.
Red-faced Goshawk.

Size similar; plumage black; quills and tail banded as in *M. gabar*. Feet cinnabar red (orange in last-named). [Disputed species.]

- 59a. *Melierax niger* (Vieill.), *Enc. Meth.*, iii., p. 1269 (1823). S. and E Africa.
African Black Goshawk.

Gen. XXIV. ASTUR Lacep. (1801).

Bill short, cutting edge of upper mandible with a festoon; nostrils oval, with no bony tubercle; toes moderate, middle one somewhat longest, outer and inner nearly equal.

KEY TO NATURAL GROUPS AND SPECIES (ADULTS).

- A. With conspicuous line of white on each side of crown, from above hinder ear-coverts; crown blackish; above ashy brown; below white barred with greyish brown; tail with 4 dark bands; length, ♂, 19-20.5; ♀, 23-24 in.
60. *Astur gentilis gentilis*, Linn, S.N., i., p. 89 (1758). Europe and Siberia; in winter to N. Africa and Himalayas.
Common Goshawk.

Smaller and darker race.

- 60a. *Astur gentilis arrigoni* Kleinsch., *Orn. Mb.*, xi., pp. 152-3 (1903). Sardinia.
Sardinian Goshawk.

- Less brownish, purer grey
- 60b. *Astur gentilis schvedowi* Menz., Orn. Geogr. N. Asia to
Eur. Russia, p. 439 (1882). Thibet.
Siberian Goshawk.
- “ White ” race.
- 60c. *Astur gentilis candidissimus* Dyb., Bull. Soc. Kamtschatka
Zool. France, viii., p. 353 (1883).
Kamtschatka Goshawk.

Above bluish ash, with blackish shaft stripes ;
crown deeper black ; below closely freckled
or vermiculated, instead of barred ; tail bands
indistinct.*

61. *Astur atricapillus* (Wils.), Am. Orn., vi., pl. 52, N. America
fig. 3 (1812). (except
American Goshawk Pacific side),
acc. in Brit.
Isles.

Markings of lower parts fine and delicate and
so dense as to present a nearly uniform appear-
ance ; tail bands obsolete.

- 61a. *Astur atricapillus striatulus* Ridgw., Hist. N. W. North
Am. Birds, iii., p. 240 (1874). America,
Western Goshawk. Sitka to
Sierra
Nevada.

Above sepia brown ; head, neck and upper
mantle blackish slate ; nape varied with white ;
tail with 6 irregular darker bands ; below
white, thickly and broadly barred with
blackish.

62. *Astur hensti* Schl., Mus. P.B. Revue Accipitr., Madagascar.
p. 62 (1873).
Henst's Goshawk.

- B. Sides of crown uniform with crown itself ; no
distinct red nape band ; maximum length
20 in. (♀)

* The young of most species of the genus *Astur*, both in the typical group and many succeeding ones, are brown above, the feathers more or less margined with ochraceous or rufous, and ochraceous or creamy white below with *longitudinal* markings, usually in the form of streaks on throat and large oval spots on breast and flanks, although in some species the flanks may be barred. The characters given, as in other genera, are those of *adult* birds.

- a. Above brownish or slate ; tail with about 3 darker bands ; below white, barred with rufous ; length, ♂, 13.5-14 ; ♀, 16-17 in.
63. *Astur tachiro tachiro* (Daud.), *Traité*, ii., p. 90 (1800). S. E. Africa.
African Goshawk.
- Below lighter ; cross bands more distinct ; no bars on under wing-coverts.
- 63a. *Astur tachiro sparsimfasciatus** Reichen., *Orn. Mb.*, iii., p. 97 (1895). Zanzibar Is.,
Zanzibar Goshawk. Brit. E. Africa,
Victoria Nyanza.
- Flanks and transverse bars more richly rufescent.
- 63b. *Astur tachiro unduliventer* (Rüpp.), *Neue Wirb.*, p. 40, t. f. 18, fig. i. (1835). N. E. Africa
Abyssinian Goshawk. (Abyssinia).
- Thighs rufous, without bars ; under wing-coverts white.
- 63c. *Astur tachiro macroscelides* Hartl., *J. f. O.*, 1855, pp. 354, 360. W. Africa
West African Goshawk. (Gold Coast to Sierra Leone).
- b. Above slaty grey ; below with breast rufous, or partly so, and rest of under parts white, barred with rufous.
64. *Astur trivirgatus trivirgatus* (Temm.), *Pl. Col.*, i., pl. 303 (1824). Hilly parts
Indian Crested Goshawk. of India and Ceylon,
Malay Archipelago.
- Larger.
- 64a. *Astur trivirgatus rufitinctus* McClell., *P. Z. S.*, 1839, p. 153. E. Himalayas
Larger Crested Goshawk. to Assam,
Indo-Chinese countries,
Formosa.

* *A. tachiro nyansæ* Neumann, *Orn. Mb.*, xiii., p. 138 (1902) is a synonym, cf. Sharpe, *Zool. Rec.*, 1902, Aves, p. 45.

- c. Above brown ; head bluish grey ; tail with about 4 dark bars ; below white, with broad *streaks* of brown ; thighs barred with blackish brown.
65. *Astur griseiceps* Schl., Mus. P.B., Astures, Celebes.
p. 23 (1862).
Grey-headed Goshawk.
- d. Smaller (length, ♂, 10.7 in.) ; above brownish ash ; sides of head and of neck rufous ; tail with 6 dark bars ; below white, barred with rufous.
66. *Astur brutus* (Poll.), Nederl. Tijdschr., iii., Mayotte Is.
p. 80 (1866). (Comoro
Least Goshawk. Group).
- e. Above blackish slate or slate ; tail with 2 more or less regular white bands ; below pale vinous to rufous, with indications of white bars ; length 15-in. (adult).
67. *Astur toussenellii toussenellii* (Verr.), Rev. et W. Africa
Mag., 1854, p. 538. (Gaboon).
Toussenell's Goshawk.
- Smaller ; length 13-in. (♂) ; thighs chestnut.
- 67a. *Astur toussenellii lopezi** Alex., Bull. B.O.C., Cameroon &
xiii., p. 49 (1903). Fernando Po.
Fernando Po Goshawk.
- Smaller ; length 11 in. (♂) ; below banded with white and chestnut.
- 67b. *Astur toussenellii castanilius* (Bp.), Rev. et W. Africa
Mag. de Zool., 1853, p. 578. (Gold Coast
Chestnut-sided Goshawk. to Gaboon ?),
Cameroon.
- Without white bars below ; thighs white.
68. *Astur trinotatus* (Bp.), Consp., i., p. 33 (1850). N. Celebes.
N. Celebean Goshawk.
- Paler below, with more white on abdomen.
- 68a. *Astur trinotatus hæsitandus* (Hart.), Nov. S. Celebes.
Zool., iii., p. 162 (1896).
S. Celebean Goshawk.

* Doubtfully distinct from *A. t. castanilius* if it has the rufous thighs of the latter. The amount of white barring most certainly varies with age.

- f. Above deep slate grey; tail with 8 or 9 dark bars; below wholly chestnut with a few whitish cross bars.
69. *Astur henicogrammus* Gray, P.Z.S., 1860, p. 343. Moluccas (Halmahéra, Morotai).
Gray's Goshawk.
- g. Above slate grey; bars on tail nearly obsolete; below cinnamon rufous, without white bars; length ♀ 15.8; ♂ 12.5 in.
70. *Astur iogaster* (Mull. et Schl.), Naturl. Gesch., p. 110 (1839-44). Moluccas (Ceram and Amboina).
Rufous-bellied Goshawk.
- Slightly smaller; below more vinous red.
71. *Astur etorques etorques* (Salvad.), Ann. Mus. Civ. Genov., vii., p. 901 (1875). New Guinea, Salawati and Jobi Is., Bismarck Archipelago.
New Guinea Goshawk.
- Whole under side deep rufous cinnamon.
- 71a. *Astur etorques rufoschistaceus* Rothsch. and Hart., Nov., Zool., ix., p. 590 (1902). Ysabel Is. Goshawk.
Ysabel Is., Solomon Archipelago.
- Smaller and darker.
- 71b. *Astur etorques rubiana* Rothsch. and Hart., Nov. Zool., xii., pp. 250-1 (1905). Solomon Is. (Rubiana, Rendova, Gizo).
Solomon Island Goshawk.
- Lighter above.
- 71c. *Astur etorques bougainvillei* Roth. and Hart., Nov. Zool., xii., pp. 250-1 (1905). N. Solomon Is. (Shortland Group & Bougainville Is.).
Bougainville Is. Goshawk.
- Smaller (length of ad. 12.2 in.) and more delicate grey above.
- 71d. *Astur etorques misoriensis* (Salvad.), Am. Mus. Civ. Genov., vii., p. 904 (1875). Is. of Misori, N.W. New Guinea, Jobi Is. (?)
Misori Goshawk.

Under wing and tail-coverts whitish ; thighs reddish white.

- 71e. *Astur etorques pulchellus* Ramsay, Jnl. Linn. Soc., xvi., p. 131 (1881).
Ramsay's Goshawk. Solomon Is. (Cape Pitt, Florida Is., Guadalcanar, Ysabel Is.)
- h. Above paler ashy grey ; crown bluish ; tail uniform ; below paler salmon colour, with remains of white bars on breast, more numerous on abdomen.
72. *Astur sylvestris* (Wall.), P.Z.S., 1863, pp. 484, 487.
Flores Goshawk. Lesser Sunda Is. (Flores).
- i. Above bluish grey ; tail with 5 or 6 blackish bars ; below salmon rufous, with white cross bars.
73. *Astur badius badius* (Gmel.), S.N., i., p. 280 (1788).
Ceylonese Shikra. Ceylon. Travancore.
- Larger and lighter grey.
- 73a. *Astur badius dussumieri* Temm., Pl. Col., livr. 52, pl. 308 (1824)
Shikra Whole of Indian Peninsula.
- Above paler bluish ; below with broader and brighter vinous bands.
- 73b. *Astur badius poliopsis* (Hume), Stray Feathers, ii., 1874, p. 325.
Hume's Shikra. Burma, Assam, Cachar, Tenasserim, Siam, and Gamboja to Cochin China, Formosa.
- Tail slightly longer and more barred.
- 73c. *Astur badius cenchroides* Severtz, Turkist. Jevotn., p. 63 (1873).
Severtzow's Shikra. Central Asia (Turkestan), Baluchistan, E. Persia and Punjab, Sind (winter).

- Mantle blackish slate ; below paler salmon colour, under wing-coverts distinctly barred.
- 73d. *Astur badius brevipes* Severtz., Bull. Soc. Imp. Nat., Moscou, xxxiii., p. 234, tab. i.-iii. (1850).
Levant Shikra. Central Russia, Dalmatia, Greece, Turkey, Asia Minor, Persia, Syria, Egypt.
- Above clear bluish ashy; under wing-coverts buffy white, with faint dusky cross bars.
- 73c. *Astur badius sphenurus* (Rüpp.), Neue Wirb., p. 42 (1835).
Rüppell's Goshawk. N.E. Africa, Sudan to Senegambia, Sierra Leone, Nigeria.
- Below with numerous distinct narrow bars of pale rufous ; under wing-coverts barred like breast.
- 73f. *Astur badius polyzonides* (Smith), Ill. Zool. S. Afr., pl. xi. (1838).
Little Barred Goshawk. S. Africa, N. to Nyasaland.
- Tail with only one indistinct subterminal bar ; under wing-coverts white.
74. *Astur butleri* Gurney, Bull. B.O.C., vii., p. xxvii. (1898).
Butler's Goshawk. Car Nicobar Is., Bay of Bengal.
- Tail with 5 bars ; body below, pale buffy vinous without bars.
75. *Astur soloensis soloensis* (Lath.), Gen. Hist., i., p. 209 (1821).
Horsfield's Goshawk. China, S. in winter to New Guinea.
- Tail bars obsolete above.
- 75a. *Astur soloensis cuculoides* Temm., Pl. Col., i., pl. 110, 129 (1823).
Chinese Goshawk. N. China, S. in winter to Malay Archipelago.
- k. Head, neck and upper part of mantle light greyish white ; rest of upper parts slate grey ; tail uniform ; below vinous rusty red.
76. *Astur pallidiceps* (Salvad.), Orn. d. Papuasias, etc., i., p. 64 (1879).
White-headed Goshawk. Bouru.

1. Above as last, but tail with blackish bars ; below entirely white.
77. *Astur poliocephalus* (Gray), P.Z.S., 1858, pp. 170, 189. Grey-headed Goshawk. New Guinea, Salawati, Mysol, Waigiou and Aru Is.
- m. Above uniform slate colour ; tail with 7 darker bars ; below entirely white.
78. *Astur francescii francescii* (Smith), Afr. Q. Jul., ii., p. 280 (1834). Frances's Goshawk. Madagascar.
- Smaller and darker above.
- 78a. *Astur francescii pusillus* Gurney, Ibis, 1875, p. 258. Joanna Island Goshawk. Joanna or Anjuan Is. (Comoro Group).
- n. Above brownish ash colour ; below white barred with dull ashy.
79. *Astur clarus clarus* (Lath.), Ind. Orn. Suppl., p. xiii. (1801). Grey Goshawk. E. side of Australia.
- 79a. *Astur clarus cooktowni* (Math.), Nov. Zool., xviii., p. 245 (1912). Northern Grey Goshawk. N. Queensland.
- o. Above and below pure white.
80. *Astur novæhollandiæ* (Gmel.), S.N., i., p. 264 (1788). White Goshawk. Tasmania, N.S. Wales, S. Australia.
- Smaller ; wing ♂ 7.8 against 10.4 in.
- 80a. *Astur novæhollandiæ leucosomus* Sharpe, Cat. Bds. B.M., i., p. 119 (1874). Lesser White Goshawk. New Guinea, Waigiou, N. Queensland ?
- p. Above slate black ; below white streaked and barred with black.
81. *Astur eudiabolus* Roth. & Hart., Bull. B.O.C., xxxv., p. 8 (1914). Black-and-White Goshawk. Mountains of Brit. New Guinea.
- q. Above blackish slate ; below white.
82. *Astur haplochrous* (Scat.), Ibis, 1859, p. 275, pl. viii. Black-throated Goshawk. New Caledonia.

- r. Above black, or blackish slate ; tail unbanded ; below white, with or without slight greyish shading or vermiculations on sides of chest. Length, ♀, about 18 in., ♂, about 14 in.
83. *Astur albigularis albigularis* (Gray), Ann. N.H., (4) v., p. 327 (1870). Solomon Islands (S. Christoval Ugi, Guadalcanar.)
White-throated Goshawk.
- Larger ; cheeks white ; below with some black shaft streaks and cross bars [doubtful form].
- 83a. *Astur albigularis meyerianus* Sharpe, Jnl. Linn. Soc., xiii., p. 458, pl. xxii. (1877). Jobi Is. N.W. New Guinea, Ceram-Laut.
Meyer's Goshawk.
- Tail with 4 whitish bands above ; cheeks and ear-coverts black.
84. *Astur jardinei** Gurney, Ibis, 1887, p. 96, pl. iii. Brit. Guiana.
Jardine's Goshawk.
- Above dark lead grey ; below pale grey.
85. *Astur poliogaster* (Temm.), Pl. Col., i., pl. 264 (1824). Brazil (Ypanama), Paraguay.
Grey-bellied Goshawk.
- C. With a well defined rufous neck band.
- a. Above brown ; crown black, crested ; tail with 4 black bands ; below, chest rufous, rest of under parts white barred with black.
86. *Astur pectoralis* Bp., Rev. et Mag. de Zool., 1850, p. 490. Brazil, Guiana, Ecuador.
Red-collared Goshawk.
- b. Above brownish slate ; inner webs of tail-feathers obscurely barred ; below, breast rufous brown barred with slate, rest paler barred with white.
87. *Astur natalis* Lister, P.Z.S., 1888, p. 523. Christmas Is.
Christmas Island Goshawk.

* If the later ascertained locality of this form, British Guiana, is correct it must be a perfectly valid species, and can have little direct relationship with *A. a. albigularis*.

Dr. Hartert, who examined the description of Oustalet's *Astur sharpei* (Bull. Soc. Philom. (6), xi., p. 25, 1875) with me, thinks it is merely an example of *A. albigularis albigularis*, and I have therefore omitted it.

- c. Above light bluish grey; tail not visibly barred; throat white; below pale vinous red, length, ♂, 13.5; ♀, 16.5 in.
88. *Astur rufitorques* Peale, U.S. Explor. Exped., Fiji Islands. p. 68, pl. 19 (1848).
Fijian Goshawk.
- Larger; above darker, except head; below with some white bars; throat bluish grey.
89. *Astur griseigularis griseigularis* Gray, P.Z.S., 1850, p. 343.
Grey-throated Goshawk. Molucca Is. (Halmahéra, Batchian, etc.), Obi. Is.
- 89a. *Astur griseigularis buruensis*, Stresemann, Nov. Zool., xxi., p. 381 (1914).
Bouru, S. Moluccas.
- Smaller; above as *A. rufitorques*; below pale vinous red; belly white.
90. *Astur albiventris* Salvad., Ann. Mus. Civ. Genov., vii., p. 982 (1875).
White-bellied Goshawk. Kè or Kei Is., Moluccas.
- Above lighter.
91. *Astur polionotus* Salvad., Mem. Accad., Torino, xl., p. 147 (1889).
Tenimber Is. Goshawk. Timor Laut.
- d. Above black; tail barred on inner webs only; below vinous chestnut; throat black.
92. *Astur melanochlamys melanochlamys* (Salvad.), Ann. Mus. Civ. Genov., vii., p. 905 (1875).
Black-backed Goshawk. N.W. New Guinea.
- Above more slaty black; below paler.
- 92a. *Astur melanochlamys schistacinus* Rothsch. and Hart., Nov. Zool., xx., p. 482 (1913).
Mt. Goliath Goshawk. Mount Goliath, Dutch New Guinea.
- e. Above greyish brown; tail with numerous darker bars; below white, barred with pale rufous; thighs and under wing and tail-coverts white.
93. *Astur torquatus torquatus* (Temm.), Pl. Col., i., pl. 43 (1823).
Collared Goshawk. Timor.
- 93a. *Astur torquatus sumbaensis* (A. B. Meyer), Abhandl. Ber. Mus., Dresden., 1892-3, p. 3.
Sumba Goshawk. Lesser Sunda Is. (Sumba).

- f. Above similar to last; below dull rufous, narrowly barred with white and ashy; under wing-coverts dull rufous barred with fulvous. Size larger, ♀, 20 in.
94. *Astur fasciatus fasciatus* Vig. & Horsf., Tr. Linn. Soc., xv., p. 181 (1827).
Australian Goshawk. E. Australia, S. to Tasmania, Norfolk Is.
- Smaller: "wing 236 mm."
- 94a. *Astur fasciatus didimus* (Math.), Austral Avian Rec., i., p. 33 (1912).
Northern Goshawk. N.W. Australia, Northern Territory.
- Below paler; under wing-coverts barred with vinous grey.
- 94b. *Astur fasciatus cruentus* Gould, P.Z.S., 1842, p. 113 (1843).
West Australian Goshawk. W. Australia.
- 94c. *Astur fasciatus polycryptus* Rothsch. and Hart, Nov. Zool., xxii., p. 53 (1915).
New Guinea, New Britain, New Ireland, D'Entrecasteaux Group, Waigiou Is.
- 94d. *Astur fasciatus insularis*, F. Sarasin, Novæ Caledonia Zool. Aves, p. 8 (1913).
New Caledonia, New Hebrides, Loyalty Is.
- Below rich vinous salmon colour, with remains of white cross-bars.
95. *Astur wallacii* Sharpe, Cat. Bds. B.M., i., p. 128, pl. 5 (1874).
Wallace's Goshawk. Lesser Sunda Is. (Lombok), S.W. Islands, Moluccas.

Gen. XXV. NISOIDES Pollen (1866).

Hinder aspect of tarsus scaled; commissure of bill perfectly straight.

Above slaty black; nape and base of scapulars mottled with white and upper tail-coverts tipped with same; tail with about 8 darker

bands ; below white barred with rufous brown ;
throat streaked with black ; length, ♂, 11.5,
wing 6 in.

96. *Nisoides moreli* Pollen, Bull. Soc. Sc. Réunion, W. Coast of
1866, p. 62. Madagascar.
Morell's Goshawk.

Gen. XXVI. ACCIPITER Briss. (1760).

Bill with distinct festoon to cutting margin of upper
mandible ; nostrils oval ; tarsus long, slender and
smooth ; toes long and slender, particularly the
middle one, which is more than twice ridge of
bill (without cere). Maximum size ♂, 15.8 ; ♀,
18 in. Minimum ♂, 8.8 ; ♀, 10.5 in.

KEY TO THE NATURAL GROUPS AND SPECIES (ADULTS).

A. Thighs banded ; no collar round neck.

- a. Above bluish slate ; nape more or less mottled
with white ; tail with about 4 darker bands ;
below white, breast barred with rufous or
brown ; flanks rufous.

97. *Accipiter nisus nisus* (Linn.), S.N., i., p. 92 Europe and
(1758). N. Asia, in
Common Sparrow-Hawk. winter to
Algeria, N.E.
Africa, India,
China.

Smaller, darker above, more closely and
thickly barred below.

- 97a. *Accipiter nisus wolterstorffi* Kleinschm., Orn. Sardinia.
Mb., ix., p. 168 (1901).
Sardinian Sparrow-Hawk.

Above bluer.

- 97b. *Accipiter nisus punicus* Erlanger, Orn. Mb., Tunis.
v., p. 187 (1897).
Tunisian Sparrow-Hawk.

- 97c. *Astur nisus nisusimilis* Tickell, Jnl. As. Soc. India,
Beng. ii., p. 571 (1833). Kashmir,
Indian Sparrow-Hawk Assam,
Burma,
Afghanistan,
Turkestan.

- Above lighter and greyer, with dark shaft stripes; dark tail bands nearly obsolete; below barred with greyish.
- 97d. *Accipiter nisus pallens* Stejn., Pr. U.S. Nat. Mus., xvi., p. 625 (1893). Kamtschatka, Japan.
Kamtschatkan Sparrow-Hawk.
- Insular race [with light and dark phases.]
- 97e. *Accipiter nisus teneriffæ* Laubmann, Verhandl. Orn. Ges., xi., p. 164 (1912). Teneriffe.
Teneriffe Sparrow Hawk.
- Blackish slaty above, darkest on head and nape; bars on tail broad and pronounced; below with bars broad and decided.
- 97f. *Accipiter nisus melanoschistus* Hume, Ibis, 1869, p. 356. Himalayas.
Himalayan Sparrow-Hawk.
- 97g. *Accipiter nisus ladygini** Bianchi, Ann. Mus. St. Petersb., viii., p. 11 (1903). E. Thibet.
- Above blackish brown; below white, barred with greyish black.
98. *Accipiter granti* Sharpe, Ann. & Mag. N.H. (6), v., p. 483 (1890). Madeira.
Madeiran Sparrow-Hawk.
- Above slaty blue; below white, barred with pale rufous; the flanks barred like breast.
99. *Accipiter fuscus fuscus* (Gmel.), S.N., i., p. 280 (1788). N. America, in winter S. to Guatemala.
Sharp-shinned Hawk.
- Paler and more cinnamomeous below; thighs with cinnamon rufous predominating.
- 99a. *Accipiter fuscus rufilatus* (Ridgw.), Pr. U.S. Mus., xi., p. 92 (1888). West U.S., W. to Rocky Mts., N. to Kodiak, S. to Cent. America.
Western Sharp-shinned Hawk.
- Smaller and more slender; cheeks rufous; below nearly white, especially the thighs.
- 99b. *Accipiter fuscus fringilloides*† (Vig.), Zool. Jnl., iii., p. 434 (1828) [ex Cuba]. Cuba, Haiti (?).
Cuban Sparrow-Hawk.

* Judging from description this form and Hume's *melanoschistus* are very near one another, if not the same.

† If the Cuban and Haitian forms are the same, they should be called *A. fuscus striatus* (Vieill.) as being the older name.

- Below rufous, the feathers spotted on both webs or barred with white; upper breast more or less uniform rufous.
100. *Accipiter cooperi cooperi* (Bp.), Am. Orn., i., pl. 10, f. 1 (1828).
Cooper's Hawk. N. America (Middle and Southern U.S.).
- Female with markings of lower parts denser and rather deeper in colour; more rufous on thighs. Male scarcely differs from typical form.
- 100a. *Accipiter cooperi mexicanus* Swains., Faun. Bor. Am., ii., p. 45, footnote (1831) [ex Mexico].
Mexican Sparrow-Hawk. W. United States to C. America.
- Sides of neck, a band running to hind neck, and upper part of breast greyish ash.
- 100b. *Accipiter cooperi gundlachi* (Lawr.), Ann. Lyc. N.Y., vii., p. 252 (1862).
Gundlach's Sparrow-Hawk. Cuba.
- Above slaty grey; below white, throat unspotted, rest minutely banded or vermiculated with greyish brown.
101. *Accipiter superciliosus* (Linn.), S.N., i., p. 128 (1766).
[=*A. tinus*, *æuct. plur.*]
Eyebrowed Sparrow-Hawk. Tropical S. America, N. to Panama.
- b. Above slaty black; upper tail-coverts tipped with white; tail with 2 faint paler bands, and 2 large spots of white on inner webs; below white, sides bright chestnut, below narrowly barred with rufous.
102. *Accipiter minullus minullus* (Daud.), *Traité*, ii., p. 88 (1800).
Little Sparrow-Hawk. S. Africa, to Mozambique on E. and Angola on W.
- Sides paler; bars darker and broader.
- 102a. *Accipiter minullus intermedius* Erlang., J. Orn., pp. 171-6, 1904. Abyssinia (S. Shoa).
- 102b. *Accipiter minullus hilgerti* Erlang., J. Orn., pp. 171-6, 1904. Arusi, Galla Land, N.E. Africa.

- 102c. *Accipiter minullus tropicalis* (Reich.), Jr. f. O., E. Africa.
p. 139, 1898.
Upper tail-coverts conspicuously white ;
barrings below blackish brown with very
little rufous.
- 102d. *Accipiter minullus erythropus* (Hartl.), J.f.O., W. Africa,
1855, p. 354. Gold Coast to
Red-legged Sparrow-Hawk. Cameroons.
- c. Above dark ashy grey ; tail, with 4 darker bars,
alternated with paler bands, in centre of each of
which is a white spot ; below white with narrow
grey bands.
103. *Accipiter ovampensis* Gurney, Ibis, 1875, p. Ovampo
367, pl. vi. Land, S.W.
Gurney's Sparrow-Hawk. Africa, to
Zambesi
Country,
Nyasaland, S.
Abyssinia,
Gambaga
(Gold Coast).
- d. Above blackish brown ; tail uniform above,
with paler bands beneath ; below white,
thickly barred with greyish black.
104. *Accipiter madagascariensis* Verr., S. Afr. Q. Madagascar.
Jnl., ii., p. 282 (1834).
Madagascar Sparrow-Hawk.
- B. Thighs nearly uniform brown, with slight
remains of white cross bars ; an ill-defined
white collar on hind neck.
- a. Above sooty brown ; tail with 5 darker bands ;
below white, broadly barred with rufous
brown.
105. *Accipiter collaris* (Kaup), MS. in Mus. Brit. Colombia.
undé ; Sel., Ibis, 1860, p. 148, pl. 6.
Semi-collared Sparrow-Hawk.
- C. Thighs barred ; red collar on hind neck.
- a. Above bluish ash ; tail almost uniform above,
but with numerous darker bars below on inner
webs ; below broadly barred with vinous red
and greyish white.
106. *Accipiter cirrocephalus* (Vieill.), N. Dict., x., E. Australia.
p. 329 (1817).
Collared Sparrow-Hawk.

- Darker above.
- 106a. *Accipiter cirrocephalus broomei* (Math.), Nov. Zool., xviii., p. 247 (1912); Broome's Sparrow-Hawk. W. Australia, Northern Territory.
- Above clearer bluish slate; below brighter rufescent with less distinct whitish bars; thighs with bare indications of bars.
- 106b. *Accipiter cirrocephalus papuanus* Rothsch. & Hart., Nov. Zool., xx., p. 482 (1913). Dutch New Guinea.
Papuan Sparrow-Hawk.
- D. Thighs uniform ashy grey; red collar on hind neck.
- a. Above blackish slate; red collar extending to upper interscapular region; tail with 10 or 11 darker bands, obsolete on outermost feathers; below pale ashy grey, sides of neck chestnut.
107. *Accipiter rubricollis* Wall., P.Z.S., 1863, pp. 19, 21, pl. iv. Moluccas (Morotai, Bouru).
Red-collared Sparrow-Hawk.
- Above "dark blue slaty grey"; rufous collar round hind neck.
108. *Accipiter brachyurus* (Ramsay), Pr. Linn. Soc. N.S.W., iv., p. 465 (1879) S.E. New Guinea.
- b. Bars on tail nearly obsolete; below uniform clear vinous, paler on thighs; lower abdomen white.
109. *Accipiter erythrauchen erythrauchen* Gray, P.Z.S., 1860, p. 344. Moluccas (Halmahéra, Batchian, Obi Is.)
Grey-throated Sparrow-Hawk.
- 109a. *Accipiter erythrauchen ceramensis*, Schl., Mus. P.B. Astures, p. 39 (1862) Ceram.
- E. Thighs greyish white; no nuchal collar.
- a. Above bluish grey; sides of face and neck very pale; below clear vinous red; tail blackish slate above, with 4 or 5 dark bars beneath.
110. *Accipiter rhodogaster* (Schl.), Mus. P.B. Celebes.
Astures, p. 32 (1862).
Red-bellied Sparrow-Hawk.

- Above darker slate grey ; sides of face and neck vinous like under parts.
- 110a. *Accipiter rhodogaster sulaensis* (Schl.), Vog. Sula Islands.
Ned. Ind. Valke, pp. 26, 64, pl. 16, f. 3, 4 (1866).
Sula Is. Sparrow-Hawk.
- F. Thighs rufous or ochraceous ; no nuchal collar.
- a. Above slaty grey ; tail brown with about 5 ashy brown bars ; cheeks and under surface white, with a few dusky shaft lines and bars on breast and flanks ; thighs chestnut.
111. *Accipiter erythrocnemis* Gray, List Accipitr. S. America,
B.M., p. 70 (1848). Brazil to
Grey-backed Sparrow-Hawk. Bolivia.
- Above darker and browner ; head blackish ; thighs pale ochre.
112. *Accipiter chionogaster* (Kaup), P.Z.S., 1851, Central
p. 41. America.
White-bellied Sparrow-Hawk. (Guatemala,
Nicaragua)
- Above plumbeous ; thighs cinnamon rufous.*
113. *Accipiter salvini* (Ridgw.), Bull. U.S. Geol. Venezuela.
Surv., ii., p. 121 (1876).
Salvin's Sparrow-Hawk.
- b. Above deep slaty grey, including sides of face ; below chestnut.
114. *Accipiter ventralis ventralis* Sclat., P.Z.S., 1866, S. America,
p. 303. Venezuela to
Chestnut-bellied Sparrow-Hawk. Colombia.
- Above and below plumbeous ; abdomen mixed with ferruginous rufous.
- 114a. *Accipiter ventralis nigriplumbeous* Lawr., Ann. Ecuador
Lyc. N.Y., ix., p. 270 (1869). and Peru.
Plumbeous Sparrow-Hawk.
- c. Above deep slate ; nape mottled with white ; side of face and under surface tawny rufous.
115. *Accipiter rufiventris* Smith, S. Afr. Q. Jnl., i., S. Africa,
p. 231 (1830). Togoland.
African Sparrow-Hawk.
- 115a. *Accipiter rufiventris perspicillaris* Rüpp., Neue Abyssinia.
Wirb. Vog., p. 41 (1836).
Abyssinian Sparrow-Hawk.

* I have an ad. ♂ from Escorial, Venez., snowy-white below, with reddish-white thighs lightly barred with dusky, which seems to constitute a new form.

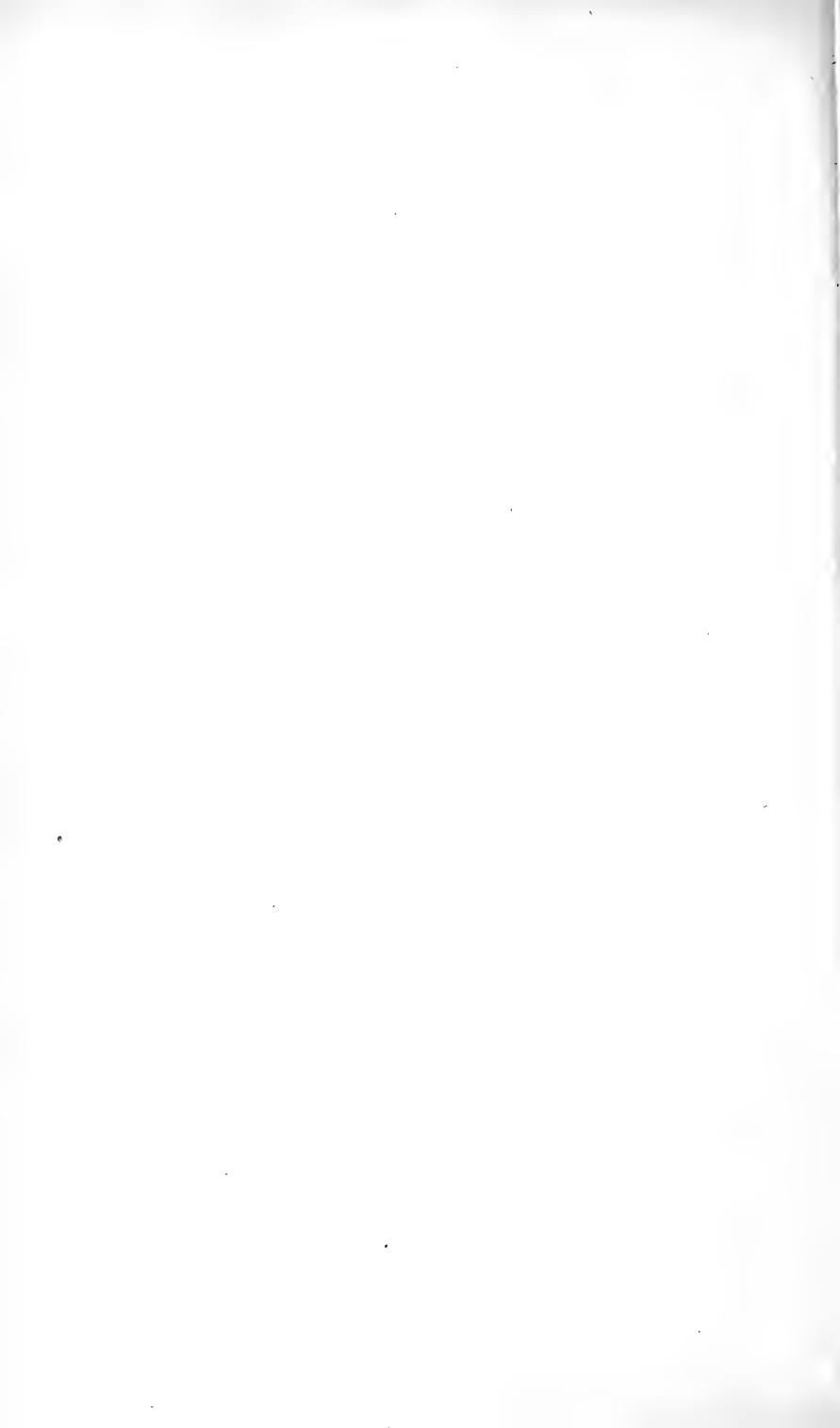
- d. Above slaty black, lower upper tail-coverts white ; tail with 2 bars of white on inner webs ; below chestnut.
116. *Accipiter sharpei* Reich., Vog. Afrikas, i., p. 564, pl. 2 (1901).
Sharpe's Sparrow-Hawk. W. Africa,
Cameroon to
Benguela.
- G. Thighs greyish, with traces of bars ; no nuchal collar.
- a. Like *A. sharpei* above, but no white spots on centre tail feathers ; below, rufous colour paler on sides.
117. *Accipiter hartlaubi* (Verr.), in Hartl., Orn. W. Afr., p. 15 (1857).
Hartlaub's Sparrow-Hawk. W. Africa
(Senegambia
to Togoland).
- b. With 2 white spots on centre tail feathers ; breast faintly barred with grey ; sides pale vinous.
118. *Accipiter batesi* Sharpe, Bull. B.O.C., xiii., p. 50 (1902).
Bates's Sparrow-Hawk. Cameroons.
- H. Thighs very pale rufous or ashy to chestnut ; no nuchal collar.
- a. Above blackish slate ; nape mottled with white ; sides of neck washed with rufous ; tail with 3 blackish bars ; below chestnut, paler on thighs and more or less barred below breast. Wing, ♂, 6.6 ; ♀, 7.4.
119. *Accipiter virgatus virgatus* (Temm.), Pl. Col., i., pl 109 (1823).
Java Sparrow-Hawk. Greater
Sunda Is.,
Java,
N. Borneo,
Sarawak.
- 119a. *Accipiter virgatus besra* Jerd., Madras Jnl. Lit. Sci., x., p. 84 (1839).
Besra Sparrow-Hawk. S. India,
Ceylon.
- Larger ; wing, ♂, 6.5-7.1 ; ♀, 8.35 ; below with markings much browner.
- 119b. *Accipiter virgatus affinis* (Hodgs.), in Gray's Zool. Misc., p. 81 (1844).
Larger Besra Sparrow-Hawk. Himalayas,
Andamans,
Siam,
Formosa,
Hainan.

Below nearly uniform light red in ad. ♀; the ad. ♂ like typical race. Wing, ♀, 6.9-7.3; ♂, 6-6.9 in.

- 119c. *Accipiter virgatus confusus*, Hart., Nov. Zool., xvii., p. 209 (1910).
 [= *Accipiter manillensis* (Meyen)].
 Philippine Sparrow-Hawk. Philippine Islands.
- Thighs and under tail-coverts uniform chestnut; wing 5.95 in.
- 119d. *Accipiter virgatus rufotibialis* Sharpe, Ibis, 1887, p. 437.
 Whitehead's Sparrow-Hawk. N.W. Borneo (Mt. Kina Balu), Sarawak (Mt. Dulit).
- b. Female barred below, up to throat, with rufous or brown like *A. nisus nisus*. Wing av., ♂, 6.45; ♀, 7.45.
120. *Accipiter gularis* (Temm. & Schl.), Faun. Jap. Aves, p. 5, pl. 2 (1850).
 Japanese Sparrow-Hawk. Japan, N. China, Formosa, Malay Archipelago, Philippine Is.
- c. Tail with 4 darker bars; below pale fawn rufous, the breast mottled with white spots and half bars. Wing, ♂, 8.5; ♀, 10.5.
121. *Accipiter guttatus* (Vieill.), N. Dict., x., p. 327 (1817).
 White-throated Sparrow-Hawk. S. America (Paraguay and Bolivia).
- d. Tail with 5 black bands; head black; sides of face and under surface slaty blue, with blackish shaft stripes; thighs and under wing-coverts rufous.
122. *Accipiter pileatus* (Temm.), Pl. Col., i., pl. 205 (1824).
 Black-capped Sparrow-Hawk. S. America (Brazil, Paraguay).
- e. Under wing-coverts white, rufous along carpal bend; thighs rufous; tail with 4 dark bars.
123. *Accipiter bicolor* (Vieill.), N. Dict., x., p. 325 (1817).
 Four-banded Sparrow-Hawk. S. Mexico to Colombia, Ecuador and Guiana.

- f. Below ashy grey, with large white spots and bars, margined with brownish; breast shaded with rufous; thighs rufous; under wing-coverts rufous mottled with brown.
124. *Accipiter chilensis* Phil. & Landb., Arch. f. Naturg., 1864, p. 43. Chile to Str. of Magellan, Patagonia.
Chilian Sparrow-Hawk.
- I. Thighs black; no nuchal collar.
- a. Above black; tail brown with 5 blackish bands; below black, most of feathers with concealed white bases or spots.
125. *Accipiter melanoleucus* Smith, S. Afr. Q. Jnl., i., p. 229 (1830). S. Africa, W. Africa (Cameroon Gold Coast, Gaboon, Niger), Cape Verde Is., Abyssinia, Uganda.
Black-and-White Sparrow-Hawk.





PART II.—NOV. 7, 1919.

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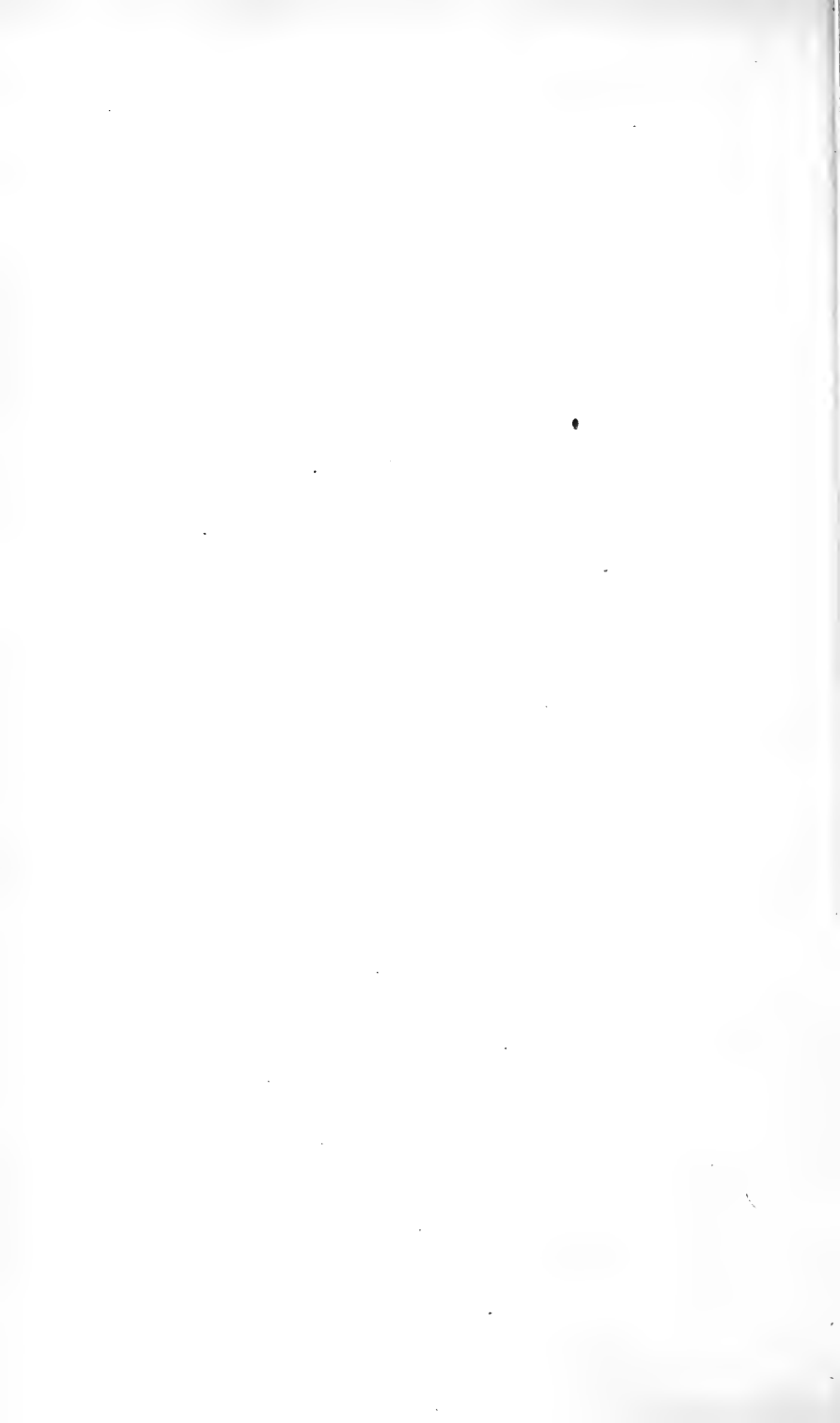
A
SYNOPTICAL LIST
OF THE
ACCIPITRES
(Diurnal Birds of Prey)

PART II.
(ERYTHROTRIORCHIS TO LOPHOAETUS)
Comprising described Species and Subspecies, with their
Characters and Distribution

BY
H. KIRKE SWANN, F.Z.S.

LONDON :
JOHN WHELDON & CO., 38, GREAT QUEEN STREET,
KINGSWAY, W.C.2.

1919.



A
SYNOPTICAL LIST
 OF THE
ACCIPTRES
 (DIURNAL BIRDS OF PREY)

PART II.

Sub-Fam. III. BUTEONINÆ.

Bill moderate, bending from base, with a slight projection on cutting edge of upper mandible. Outer toe connected to middle toe by an interdigital membrane; tibia much longer than tarsus, exceeding it by more than the length of hind claw.

Gen. XXVII. ERYTHROTRIORCHIS Sharpe (1875).

Wing about equal to tail, the latter moderately graduated; ridge of bill (without cere) less than half length of middle toe (without claw).

Size of *Buteo*. Length ♂ 20, wing 14.5; ♀ wing 16 in.; plumage above and below bright rufous, with black centres; tail ash, tipped with pale rufous, and irregularly barred with dark brown; under surface of tail and tips of primaries whitish.

126. *Erythrotriorchis radiatus* (Lath.), Ind. Orn. E.C.N. and
 Suppl., ii., p. xii. (1801) [*N.S. Wales.*] N.W.
 Red Buzzard. - Australia.

Gen. XXVIII. MEGATRIORCHIS Salvad. & D'Alb. (1875).

Wings short, slightly longer than tail; tail long, rounded; inner toe shorter than outer.

Larger ; length ♀ 26.75, wing 14 in. ; plumage above brownish black, with rufescent margins ; below white, spotted longitudinally with brown ; wings and tail above banded alternately with brownish-black and greyish-brown.

127. *Megatriorchis doriae* Salvad. & D'Alb., Ann. Mus. Civ. Genov. vii., p. 85 (1875). [*Yule Island.*] S.E. New Guinea.
Doria's Buzzard-Hawk.

Gen. XXIX. HETEROSPIZIAS Sharpe (1874).

Nostrils round, with large tubercular process ; wings reaching up to or beyond tail ; tail about equal to twice tarsus.

Size of *Buteo*: length ♀ 24, wing 18.3, ♂ 20, wing 16.5 in. ; head and shoulders rufous ; mantle and scapulars pale slate grey with rufous margins ; rump and tail purplish black, tail with a median white bar and white tips ; below rufous with narrow obsolete black bars on breast.

128. *Heterospizias meridionalis* (Lath.), Ind. Orn., l., p. 36 (1790). [*Cayenne.*] S. America (Colombia to S.E. Brazil, Paraguay and Argentina).

Gen. XXX. GERANOÆTUS Kaup (1844).

Size much larger than *Buteo* ; tail proportionately shorter, and wings proportionately longer.

Length ♂ 28, ♀ 31, wing 23.7, tail 11.5 in. ; slaty-black, with the shoulder grey, finely barred with blackish ; abdomen and under wing and tail-coverts greyish-white, finely barred with blackish.

129. *Geranoæetus melanoleucus* (Vieill.), N. Dict. d'Hist. Nat., xxxii., p. 57, 1819 [*Paraguay*]. Colombia to Chile and Patagonia.
Chilian Eagle.

Gen. XXXI. BUTEO Lacep. (1799).

Cere large ; nostrils oval with no tubercle ; wings moderately long, the 3rd to 5th quills longest, the first 3 to 5 emarginate or notched on inner webs ; tarsus short, strong, usually scaled, and feathered in front for a varying distance. Size usually under 24 in.

KEY TO THE NATURAL GROUPS AND SPECIES (ADULTS).

- A. Tail usually brown, sometimes washed with rufous, with a varying number of transverse bars ; generally from 6 to 12, often indistinct. General plumage sooty-black, shaded with brown ; tail greyish-brown with 12 or 13 blackish bars.
130. *Buteo galapagensis* (Gould), P.Z.S., 1837, p. 9 Galapagos Is.
[*Galapagos Is.*]
Galapagos Buzzard.
Aberrant species ; size small ; wing ♂ 10.75 in., very short and rounded ; inner webs of first 4 primaries emarginate ; tips of primaries reaching to about middle of tail ; tail with 8 or 9 darker bars ; plumage blackish-brown (dark phase) or brown above and buff below and on head (light phase).
131. *Buteo solitarius* Peale, Zool. U.S. Expl. Hawaiian
Exped. Birds, p. 62 (1848). [*Karakaloo Bay, Archipelago*
Hawaii.]
Solitary Buzzard.
Size small ; length ♂ 18.50, wing 11.8 in. ; above pale brown ; tail with 6 or 7 bands of darker brown ; below white, throat narrowly and breast broadly streaked with pale brown ; belly and thighs uniform pale brown.
132. *Buteo brachypterus* Hartl., Faun. Madag. p. 1. Madagascar.
(1861). [*Madagascar.*]
Short-winged Buzzard.
Size large, length ♀, 24.5 ; wing 19 in. ; head and neck white, with broad streaks of pale brown ; above dull brown ; tail with indistinct darker cross-bars, the base and inner webs white : below white, barred on throat and streaked on breast with dark brown : flanks dark brown.
133. *Buteo hemilasius* Temm. et Schl., Faun. E. Siberia.
Japon. Aves, p. 18, pl. vii (1844). [*Japan.*] Mongolia
[*Archibuteo strophiatatus* (Hodgs.) is a synonym.] to Tibet,
Upland Buzzard. Nepal and
L. Baikal ;
Cas. Japan ;
winters
China,
Turkestan,
N. India.

Length ♂, 19, wing 15 in. ; first 3 primaries notched ; above dark-brown to slate-brown with paler edgings ; tail with 10 or 12 darker cross-bars, the sub-terminal broad ; throat white, upper breast rufous (♂) to deep chestnut or brownish-black (♀) ; other lower parts buffy-white, generally with rufous arrow heads or flank bars ; a uniform sooty-brown phase is met with.

134. *Buteo swainsoni* Bonap. Geogr. and Comp. List, p. 3 (1838). [*Near the Columbia River.*] Swainson's Hawk. N. and S. America, from Alaska to Chile.

Tail brown with 8 or 9 darker bars ; below whitish, heavily blotched lengthwise with dark brown ; thighs buffish, barred with dark brown.

135. *Buteo oreophilus* Hart. and Neum., Orn. M.B. xxii., p. 31 (1914). [*S. Abyssinia.*] E. African Buzzard. E. Africa. Abyssinia and Uganda to the Cape.

First 4 primaries notched ; length ♂ about 20 in. ; wing 14.75-15 ; tail 8.75-9 ; tarsus 3.10 ; ♀ wing 15-16 in. ; plumage variable ; adult in breeding plumage (*Brit. Isles*) brown to dark brown above, sometimes with rusty edges to scapulars ; lower parts whitish, heavily blotched on breast and barred on belly with dark brown (occasionally rufous brown), the upper breast, flanks and thighs nearly uniform ; tail with 12 or 13 darker bars, the sub-terminal one broad* ; a sooty-brown phase also a "white" variety are met with.

136. *Buteo buteo buteo* (Linn.) S.N. ed. X. i. p. 90 (1758). [*Europe.*] Common Buzzard. W., N. and C. Europe, N. to Brit. Isles and Sweden, S. to Spain.

* Adults among the Buzzards usually have the tail much less numerously barred than is the case with young birds and often have a broad sub-terminal band, lacking in young birds ; the latter also have the under-parts of the body as a rule lighter, often with the arrow-head, circular or elongated dark markings characteristic of the young birds of other groups of the *Accipitres*. Individuals of all the species of *Buteo* vary greatly in plumage.

Smaller insular race; darker and more rufous; more heavily marked below, tail tinged rufous.

- 136a. *Buteo buteo arrigonii* Picchi, Avicula, vii., p. 40 (1903). [*Sardinia*.]
Sardinian Buzzard. Sardinia, Corsica.

Wing ♀ 16.50, ♂ 15.50 in.; large and dark insular race; more similar to *zimmermannae* than typical form; darker than latter generally is and nearly uniform below, blackish-brown to rufous-brown, the abdomen barred; tail with 10 or 12 darker bars and with or without rufous tinge.

- 136b. *Buteo buteo harterti* subsp. nov. [*B. buteo* subsp. ? Hart., Vög. Pal. Faun., p. 1123 (1914)]. [Type in Tring Mus.]
Madeira Buzzard. Madeira.

Wing ♂ 13.40-14.10; ♀ 14.70-15.25 in.; rufous form, but tail generally light ashy, with 7-9 bars, the sub-terminal broad, more or less tinged with rufous; below with belly either uniform deep rufous or barred and mottled with buffish-white.

- 136c. *Buteo buteo rothschildi*, subsp. nov.* [No. 1904, 12. 31. 286, Coll. B.M., ♀ *Terceira*, Az. Apl. 6, 1903, W.R.O. Grant.]
Azores Buzzard. Azores.

Wing ♀ 15.40-15.70, ♂ (juv.) 13.80 in.; rufous form; chest and abdomen rufous brown; tail brown, slightly tinged with rufous and with the darker bars nearly obsolete in very old bird, about 5 being apparent; younger birds have about 10 distinct bars.

- 136d. *Buteo buteo insularum* Floericke, Mitteil. Oesterr. Reichsb., iii., p. 64 (1903). [*Gran Canaria*.]
Canary Isles Buzzard. Canary Isles.

Paler and less rufous than three preceding forms; wing ♀ 14.60; above ashy-brown, with paler margins to the feathers; tail with 9 darker bars; below throat white, streaked with dusky-brown; chest brown, mottled with buffy-white; centre of breast whiter; belly

* The fine series in Brit. Mus. does not appear to me to confirm the view that the Azores race is the same as the Canary Is. race.

barred with brown; thighs dark brown, slightly barred with rufous; feet smaller and slighter.

- 136c. *Buteo buteo bannermani*, subsp. nov. [♀ Near Cape Verd Islands. *Mindello Bay, St. Vincent, Cape Verd Is.* Sept. 26, 1913, in Coll. B. M. No. 1919. S. 15. 148.]
Cape Verd Buzzard.

Size of but more rufous than *B. buteo buteo*; more heavily marked below; abdomen and under tail-coverts white barred transversely with rufous brown; tail distinctly barred and with a rufous tinge; wing ♂ 14.32, tail 8.25 in.

- 136f. *Buteo buteo zimmermannæ*, Ehmecke, J.f.O. 1893, p. 117. [*Kreis Gumbinnen, E. Prussia.*] Rufous Buzzard. E. Europe: E. Prussia & W. & C. Russia, N. to Archangel, S. to Balkans, W. casually to Holland, Brit. Islands (*) France and Italy.

Tarsus feathered about half-way down in front; plumage above purplish brown, with rufescent margins; tail with 4 or 5 indistinct darker bars; below rufous, abdomen buffy-white, barred with rufous (younger birds buffy-white below, streaked on breast and blotched on abdomen with dark brown.)

- 136g. *Buteo buteo japonicus* (Temm. et Schl.) in Siebold's Fauna Jap. Aves., p. 16. [pl. vi, vi^a] (1844). [*Japan.*] [= *B. plumipes*. (Hodgs.)] Japanese Buzzard. Japan, China, Corea, Manchuria, Turkestan, Punjab to Burma.

B. Tail more definitely red in old birds, with most of the bars obsolete.

Smaller: wing ♂ 13.40-14.50, tail 7-8, tarsus 3 in., ♀ wing about 15 in.; above brown

* There are eight rufous Brit. birds in the Brit. Mus. collection, two of which seem referable to *B. rufiventer* and the rest to this form, while there is another example in Brighton Mus. from the Monk coll., labelled "England." Devonshire birds are, however, often almost as rufous as those from E. Europe.

with conspicuous rufous margins and blackish shafts ; tail more or less rufous, with sub-terminal band and remains of other bars (in younger birds ashy-brown barred with dark brown) ; head, neck and under parts tawny rufous, breast varied with creamy buff and throat streaked with brown ; belly not barred in adult.

137. *Buteo rufiventer* Jerd. Madr. Jnl. 1844, p. 165. [*Nilghiri Hills, India.*] [= *B. desertorum* Daud. ex Levaill.]
Desert Buzzard.

W. Asia and S.E. Europe* (S. Russia to Caucasus) ; S. to India, Arabia and Africa below the Sahara in winter ; cas. in Brit. Islands.

Much larger : Wing ♂ 16.25-17.75, tail 10.5, tarsus 3.75. ♀ wing 18-19 in. ; breast buffish to pale rufous with dark shaft streaks ; abdomen, flanks and thighs rufous to chocolate brown, unbarred ; tail pale rufous, whitish at base and shafts white, with 2 or 3 definite bars towards tip and remains of others ; uniform dark under parts of some birds probably a dark phase or erythrism rather than age ; also subject to melanism ; immature buffish white below blotched and streaked with dark rufous brown ; tail ashy with darker bars.

138. *Buteo ferox ferox* S. G. Gmel., N. Comm. Ac. Petrop. xv., p. 442, pl. x (1769). [*Astrakan.*]
Long-legged Buzzard.

S.E. Europe (cas. S. & W. Europe), Egypt, Arabia, Asia Minor ; W. & C. Asia ; N.W. India and Africa in winter.

* The form *B. menetriesi*, Bogd., is not separable. It appears to rest upon birds with a fully rufous tail and the bands obsolete, except the sub-terminal one, but there is no doubt these are only very old birds and there is no means of distinguishing European from Asiatic examples in the various other stages of tail marking, while the red stage seems common to both. Both forms migrate to Africa.

- Much smaller : wing 14.50, tail 8.2, tarsus 2.7 in.
- 138a. *Buteo ferox cirtensis* (Levaill). Expl. Sci. de l'Alger., pl. 3 (1850). [*Algeria.*] Algerian Buzzard. N.W. and N. Africa, (Morocco, Algeria, Tunis), Spain (acc. ?)
- Length ♂ 21, wing 17, tail 8, tarsus 3.30 in. ; ♀ length 23, wing 18 in. ; general plumage sooty or brownish-black ; lower breast chestnut ; abdomen more or less barred with white and chestnut ; primaries externally ashy, secondaries whitish, both barred with black ; tail chestnut red, with black sub-terminal band ; younger birds have under parts rufous, excepting throat.
139. *Buteo jakal* (Daud.), Traité, ii., p. 161 (1800). [*Cape of Good Hope, ex Le Vaillant.*] Jackal Buzzard. S. Africa.
- 139a. *Buteo jakal archeri* W. Sci., Bull. B.O.C., xxxix., p. 17 (1918). Somaliland.
Size similar ; tail less chestnut, more tawny ; lower parts black in old birds ; in younger chiefly white, excepting the throat which is more or less black.
140. *Buteo augur* Rüpp., Neue Wirb. Vög., p. 38, pl. 16 (1835). [*Abyssinia.*] Augur Buzzard. N.E. Africa, Equatorial Africa.
General plumage of ♂ dusky blackish, the feathers of back and wings margined with brown ; sides of head and cervical collar varied with rufous ; forehead, nape spot and throat white ; breast as upper parts ; abdomen and flanks white spotted and streaked with black ; tail rufous with sub-terminal black band.
141. *Buteo auguralis* Salvad., Att. Soc. Ital. Sc. Nat., viii., p. 377 (1865). [*Abyssinia.*] Salvadori's Buzzard. W. Africa to N.E. Africa.
Size variable ; average length, ♂ 21, wing 15.50 in. ; ♀ 24, wing 17.50 in. ; above blackish-brown with more or less of lighter variegation ; tail chestnut with one sub-terminal darker band and often remains of others ; below buffy-white, flanks barred or mottled and abdomen heavily streaked with blackish-brown.

142. *Buteo borealis borealis* (Gmel.), S.N., 1, p. 266 (1788). [*Carolina.*]
Red-tailed Buzzard. E. North America, N. to Canada and Newfoundland W. to Gt. Plains.
- Light form, pure white below with few or no markings; sub-terminal tail-bar reduced or obliterated.
- 142a. *Buteo borealis krideri* (Hoopes), Pr. Ac. Nat. Soc. Philad., 1873, p. 238, pl. 5. [*Iowa.*]
Krider's Hawk. Gt. Plains, from Missouri and Minnesota, W. to Rocky Mountains, N. to S. Manitoba.
- Strongly developed form of *B. borealis borealis*, more strongly marked below, especially on thighs, and with more bars than the sub-terminal one on tail; melanisms are frequent, but they usually retain the rufous tail.
- 142b. *Buteo borealis calurus* Cassin, Proc. Ac. Nat. Sci. Philad., vii., p. 281 (1855). [*New Mexico.*]
Western Red-tail. W. North America, beyond W. edge of Gt. Plains E. to Middle Yukon, S. to Guatemala; Guadaloupe Is.
- Perhaps a melanism of *B. borealis borealis*; size similar, but more robust; nearly uniform sooty-brownish-black, with much less of concealed white; tail mottled with greyish, dusky-white and rufous, with subterminal black band.
- 142c. *Buteo borealis harlani* (Aud.), Bds. Am., i., p. 86 (1830). [*Louisiana.*]
Harlan's Buzzard. Lower Mississippi Valley & Gulf States, from Louisiana to Georgia and Florida.

Resembling *B. borealis calurus*, but smaller throughout; wing ♂ ad. 344 mm.; ♀ 365 mm.; dark areas blacker and more extended.

- 142d. *Buteo borealis alascensis* Grinnell, Univ. Cal. Pub. Zool., v., No. 2, p. 211 (1909). [*Glacier Bay and Chichagof I.*] S. E. Alaska.
Alaska Red-tail.

Tail uniform rufous, with one very narrow sub-terminal band; flanks and thighs light rufous; juv., tail barred, and flanks and thighs sparsely barred with rufous.

- 142e. *Buteo borealis costaricensis* Ridgw., Hist. N. Am. Bds., iii., p. 285 (1874). [*Costa Rica.*] Costa Rica to Panama.
Central American Red-tail.

Size of *B. borealis borealis*, but darker above; throat and middle of belly with broad conspicuous striping and banding of deep chocolate brown; tail feathers with dark brown markings (remains of bands) near shaft.

- 142f. *Buteo borealis umbrinus* Bangs, Pr. New Engl. Zool., Cl. ii., p. 67 (1901). [*Myakka, Manatee Co., Florida.*] Florida, Bahamas.
Florida Red-tail.

Small form: wing ♂ 14.94–15.70, ♀ 16.76 in. Insular race, undescribed? *

- 142g. *Buteo borealis socorroensis* Ridgw., Pr. U.S.N. Mus., iii., 1880, p. 220 (1881) [*Socorro I.*] Socorro Island.
[*nom. nudem.*]
Socorro Island Red-tail.

More rufous on sides of breast and belly; thighs heavily barred with brown.

- 142h. *Buteo borealis fumosus* Nelson, Pr. Biol. Soc. Wash. xii. p. 7 (1898) [*Tres Marias Is.*] Tres Marias Islands.
Tres Marias Red-tail.

Length 21, wing 14.50 in.; above sooty-brownish with purplish gloss and ferruginous edgings; tail rusty ferruginous, base and tips white with sub-terminal dusky-black band and 7-9 dusky bars; wing quills rich brown, barred with black; below white tinged

* The example in Tring Mus. is black with rufous tail, having broad sub-terminal band, and 8 or 9 narrow obsolete bars, presumably a melanism.

- buff; throat streaked with dusky, chest more thickly with ferruginous; a dusky zone across abdomen; thighs barred ferruginous.
143. *Buteo tropicalis* Verrill., Pr. Ac. Nat. Sci. San Domingo
Philad. lxi. pp. 357-8. (1909) [*San Lorenzo.*]
Tropical Buzzard.
- Doubtful species: "Possibly the light phase of *B. b. harlani*." A.O.U. Check List; only type example known.*
144. *Buteo cooperi* Cassin, Pr. Ac. Nat. Sci. California.
Philad. 1856, p. 253. [*Santa Clara Co., Calif.*]
Cooper's Buzzard.
- C. Tail black.
- Smaller than *B. borealis borealis*; average length, ♂, 19, wing 12.50 in.; plumage above reddish brown with darker centres; lesser wing-coverts bright chestnut; below pale brownish rufous, barred with white; thighs paler and more buffy; quills and tail black, barred with white, the tail with about 6 bars.
145. *Buteo lineatus lineatus* (Gmel.), S.N. I., p. E. North
268 (1788) [*Long Is., N.Y.*] America, N.
Red-shouldered Buzzard. W. to edge
of Great
Plains.
- Much darker: "An erythrism of last form" (Coues); below generally much darker reddish, with much less white barring; thighs rufous.
- 145a. *Buteo lineatus elegans* Cassin, Pr. Ac. W. North
Nat. Sci. Philad. vii, p. 281 (1855) [*California.*] America
from Brit.
Columbia to
N.W. Mexico
and Lower
California.
- Smaller: wing 11-12 in.
- 145b. *Buteo lineatus alleni* Ridgw., Pr. U.S. Nat. S. Carolina
Mus. vii., p. 514 (1885) [*Tampa, Fla.*] to Florida.
Florida Red-shouldered Buzzard.

* A.O.U. Check List, ed. 3, 1910, but Gurney (*Ibis*, 1876, p. 242) refers to another from Colorado.

- Wing (type) 12.98 ; tail 8.62 in. ; darker, approaching *B. l. elegans* ; breast usually more spotted with buffy ; dark shaft of chest more conspicuous ; head and back more rufous.
- 145c. *Buteo lineatus texanus* Bishop, Auk., xxix, p. 232 (1912). [*Texas.*] Texas, Mexico.
Texan Red-shouldered Buzzard.
- Considerably smaller ; length ♂ 15, wing 10.75 in. ; ♀ 16, wing 11.40 in. ; only 3 outer primaries emarginate ; plumage above dark brown with lighter edges ; nape much mottled with white ; tail brownish-black with 2 bands of greyish-white ; below rufous brown cross-banded with white in the form of transverse oblong spots.
146. *Buteo platypterus platypterus* (Vieill.), Tabl. Encl. Meth., iii., p. 1273 (1823). [*Near Philadelphia.*] E. North America ; C. America, Colombia, Ecuador, E. Peru (winter.)
Broad-winged Buzzard
- Insular race ; smaller and lighter than *antillarum* and bars below narrower and less sharply defined.
- 146a. *Buteo platypterus insulicola* Riley, Auk., xxv., p. 273 (1908). [*Antigua.*] Antigua.
Larger and darker.
- 146b. *Buteo platypterus antillarum* Clark, Pr. Biol. Soc. Wash., xviii., p. 62 (1905). [*St. Vincent.*] St. Vincent, St. Lucia, Grenada.
[Description not seen.]
- 146c. *Buteo platypterus rivieri* Verrill, Add. to Avif. of Dom. ca. 1905, p.---? Dominica.
Smaller ; wing ♂ (Surinam) 15.25 in.* ; general plumage black ; tail black with broad median band of grey (showing white below) and remains of a second band.

* Examples from Mexico (Tring Mus.) are larger ; wing ♂ 16.75 in. A ♀ (?) Bolivia has the wing 18 in., and if this is a migrant from Mexico, there may be a large northern race, and if so it could be called *mexicanus*. Gray's *albonotatus* (Mexico) is a *nominum nudem* and cannot stand, while Kaup's *albonotatus* (Isis, 1847, p. 954) is neither a name nor a description. His *albonotatus* in Contr. Orn. 1850, p. 75, is from "S. America" and is based on the "concealed white spots," which can be seen on the Surinam bird at Tring, and not on the Mexican ; they appear only to mark a stage of plumage. The only certain distinction seems to lie in the relative sizes.

147. *Buteo abbreviatus abbreviatus* Cab., in Brit. Guiana,
Schomb. Reis. Guiana. iii, p. 739 (1848) Surinam,
[*British Guiana.*] Brazil,
Zone-tailed Buzzard. Venezuela,
Mexico,
Arizona, New
Mexico,
Texas, S. to
Bolivia.

Much smaller; wing "♀" 12.50; tail 6 in.; uniform sooty black; tail with 4 grey bars above, showing white below.

- 147a. *Buteo abbreviatus minimus* subsp. nov. ["♀" S. Brazil.
Miritiba, Braz., 18.8.09, coll. H.K.S.]

D. Tail white.

Length ♂ 22; wing 15.25 in.; general colour of ♂ bluish-slate; tail white with about 9 narrow bars of slate grey and broad sub-terminal blackish band; ♀ head, neck and upper breast slate; mantle, scapulars and belly rufous.

148. *Buteo poliosomus* (Quoy et Gaim.) Voy. Chile,
de l'Uran. Ois. p. 92, pl. 14 (1824) ["*Iles Patagonia,*
Malouines."] Falkland Is.,
Falkland Island Buzzard. Tierra del
Fuego.

Size similar; adult ♂, general plumage slate, tail with 8 darker bars and broad black sub-terminal band; abdomen and thighs slate, more or less barred with white; ♀ wings, rump and belly more or less suffused with rufous; thighs rufous barred with white.

149. *Buteo hypospodius* Gurney, Ibis, 1876, p. Colombia,
73, pl. 3. [*Medellin.*] Venezuela,
Grey-bellied Buzzard. Amazonia,
Brazil.

Larger: wing (♀?) 19 in.; above and tail much as in ♀ of *B. e. erythronotus*; below barred with white and slate, the breast mixed with rufous.

150. *Buteo pacilochrous* Gurney, Ibis, 1879, p. Ecuador,
176. [*Yauayacu.*] [= *B. melanosternus.* Péru,
Berl. and Stolz.] Bolivia,
Gurney's Red-backed Buzzard. Chile,
Argentina.

Length ♂ 21 ; wing 15 in. ; ♀ wing 16.5 in. ;
 ♂ above slaty-blue, below white ; tail white
 with 10 or 11 narrow grey bars and sub-
 terminal blackish band ; ♀ back and scapu-
 lars brick red.

151. *Buteo erythronotus erythronotus* (King) Patagonia to
 Zool. Jul. iii, p. 424 (1827). [*Str. of Magellan.*] Chile and
 Red-backed Buzzard. Peru, Falk-
 land Is.,
 Argentina.

Insular form ; ♂ darker slate grey above ;
 ♀ back uniform like ♂ instead of red.

- 151a. *Buteo erythronotus exsul* Salvin, Ibis, 1875, Masafuera
 p. 371 [*Masafuera.*]* Island.
 Masafuera Buzzard.

Length ♂ 21, wing 17 in. ; above and throat
 slaty-grey, darker on head and wings ;
 shoulder ferruginous ; rump and upper tail-
 coverts white ; tail silvery grey, centre
 feathers white, with 8 or 9 silvery bars and
 sub-terminal black band ; below white,
 axillaries and flanks barred with blackish.

152. *Buteo albicaudatus albicaudatus* (Vieill.), N. S. America,
 Dict. d'Hist. Nat. iv, p. 477 (1816). [*S. to Chile and*
America.] Argentina.
 White-tailed Hawk.

Cross bars on tail and lower parts finer and
 more broken.

- 152a. *Buteo albicaudatus sennetti* Allen, Bull. Am. Middle
 Mus. N.H. v., p. 144 (1893). [*Texas.*] Texas to
 Sennett's White-tailed Hawk. S. America.

“Notably smaller : with the upper parts,
 particularly the head and sides of the neck,
 darker and more slaty.”

- 152b. *Buteo albicaudatus exiguus*, Chapin., Bull. Llanos of
 Am. Mus. N.H. xxxiv., p. 637 (1915). E. Columbia
 [*Barrigon, Col.*] & E. into
 Columbian White-tailed Hawk. Venezuela.

* The following additional forms of *Buteo* have been described from Chile
 by Philippi (Arch. für Naturg., 1899, pp. 167-70) viz. : *Buteo melanostethos*,
B. pæcilogaster, *B. macronychus*, *B. ater*, *B. pictus*, *B. albigula*, *B. [Asturina ?]*
æthiops et elegans, but what the respective value of these forms is I have
 been unable to judge.

Ad. plumage not seen; imm. black, abdomen somewhat barred with buff; tail with indistinct darker bars. [Tring Mus.]

- 152c. *Buteo albicaudatus colonus* Berl., J.f.O. 1892, p. 91. [Curaçao.]
Curaçao White-tailed Hawk Curaçao, Bonaire, & Aruba Is

Gen. XXXII. ARCHIBUTEO Brehm (1828)

With characters and appearance of *Buteo*, but tarsi feathered to the toes.

Length ♂ 26, wing 18.7 in.; ♀ length 22.5, wing 17 in.; above deep brown with paler margins; head, neck, throat and chest white, streaked with dark brown; scapulars and least wing-coverts with white bases; upper tail-coverts banded with white; tail white, terminal portion ashy, with sub-terminal blackish band; centre of belly and flanks deep brown mottled with white; thighs and tarsi buffish-white, barred with brown; much variation occurs, some birds being much darker, almost uniform below.

153. *Archibuteo lagopus lagopus* (Gmel.), S.N., i., p. 260 (1788). [ex Brunn.; Christiansoe near Bornholm.]
Rough-legged Buzzard. N. Europe and N. Asia; in winter S. to Mediteranean, Black Sea and Caspian.

Much paler; plumage above with broad white margins; streaks on throat and breast and thighs much narrower and paler; upper tail-coverts white with a central streak of brown.

- 153a. *Archibuteo lagopus pallidus* (Menzb.), Orn. Turkest., i., p. 163 (1888). [Siberia, Turkestan, etc.]
Siberian Rough-legged Buzzard. Siberia, Turkestan, Kamtschatka Ussuri.

Much darker and more ochraceous below normally than *A. l. lagopus* and varying in melanistic examples to nearly uniform black.

- 153b. *Archibuteo lagopus sancti-johannis* (Gmel.), S.N., i., p. 273 (1788). [Hudson Strait and Newfoundland.]
American Rough-legged Buzzard. N. America, N. of Mexico, breeding N. of U.S

Plumage above blackish with chestnut margins; head streaked with black and white; tail silvery ashy, tinged with rufous, the base and tip white; below white, with black shaft lines on breast and arrow heads on flanks; legs bright chestnut barred with black.

154. *Archibuteo ferrugineus* (Licht.), Abh. K. Akad. Wiss. Berl. (Phys. Kl.), 1838, p. 428 (1839). [*Near Monterey, Cal.*] Ferruginous Rough-leg. W. North America, S. to California; in winter to Lower California and N. Mexico.

Gen. XXXIII. BUTEOLA Bp. (1855).

Nostrils round, with distinct central tubercle; wing with 3 outer primaries emarginate on inner webs, the 4th sinuate.

Size moderate; length ♂ (?) 15.5, wing 11.3 in.; ♀ (?) 16, wing 13 in. Above slaty-black; tail ashy-brown, tipped with whitish and with 4 bars of blackish-brown; sides of face and under surface of body white; melanistic variety [*B. fuliginosa*, Sel.] immature?, general plumage sooty-black; tail brown with 8 blackish bands.

155. *Buteola brachyura* (Vieill.), N. Dict. d'Hist., Nat. iv., p. 477 (1816). [*Cayenne*]. Short-tailed Buzzard. Brazil, Bolivia, Peru, Guiana, N. to Central America and Florida.

Gen. XXXIV. ASTURINA Vieill. (1816).

Tibiæ long; feet large and powerful; nostrils round, with indistinct and concealed tubercle at base of upper margin. Size medium (length 16-18 in.).

♂♀ above ashy-grey, barred with silvery white, most narrowly on the head and nape, bars becoming duller and broader on wings; upper tail-coverts blackish, tipped with white; tail blackish with a broad white band about $\frac{1}{3}$ rd of distance from tip and a second incomplete band on outer feathers; body below regularly banded with silvery white and slaty grey.

156. *Asturina nitida nitida* (Lath.), Ind. Orn, i., p. 41 (1790). [*Cayenne*].
Shining Buzzard-Hawk. S.E. Brazil,
Amazonia,
Guiana,
Colombia to
Panama.
- [Not seen.]
- 156a. *Asturina nitida pallida* Todd, Proc. Biol. Soc., Wash., xxviii., p. 170 (1915). Bolivia.
- Above ashy-grey without white bars; head and nape lighter; tail with whitish band across middle with remains of another nearer base, below banded as *A. n. nitida*, except on breast, which is ashy-grey with black shaft stripes.
157. *Asturina plagiata* Schl. Mus. Pays-Bas, i., Asturinæ, p. 1 (1862), [*Vera Cruz*].
Mexican Goshawk. Costa Rica,
N. to S.
Arizona and
Lower Rio
Grande
Valley.
- Gen. XXXV. RUPORNIS Kaup (1844).
- Feet and claws much smaller and weaker.
Size rather smaller than *Asturina*.
- Length ♂ 14. wing 8.70 in.; above pale ashy-grey; tail light ashy with 3 broad bands of black; inner webs of wing quills rufous, barred with black, outer webs and tips ashy brown; below white, barred with pale rufous or rufous ashy, the chest and throat nearly uniform.
158. *Rupornis magnirostris magnirostris* (Gmel.), S.N., i., p. 282 (1788). [*Cayenne*].
Large-billed Hawk. Guiana,
Venezuela,
Colombia,
Peru, Lesser
Antilles.
- [Not seen.]
- 158a. *Rupornis magnirostris occidus* Bangs, Pr. Biol. Soc., Wash., xxiv., p. 187 (1911). [*Rio Tembopata*].
Bangs's Hawk. Peru.
- Above browner; tail with interspaces ashy.
- 158b. *Rupornis magnirostris griseicauda* Ridgw., Pr. Bos. Soc., N.H., xvi., p. 47, (1873) [Mexico?]
Mexico to
Guatemala
and N.
Nicaragua

- Smaller ; much paler (smoke grey) above ; slightly paler below.
- 158c. *Rupornis magnirostris conspecta*, Peters, Auk, 1913, p. 370 [*San Ignacio*.] Yucatan Peninsula.
- Tail with the interspaces rufous instead of ashy ; below buff banded with rufous, throat and chest ashy.
- 158d. *Rupornis magnirostris ruficauda* (Scl. & Salv.), P.Z.S., 1869, p. 133 [Type loc. sugg. *David, W. Panama*, Chapm.]. Central America (S. Nicaragua to Panama.)
Red-tailed Hawk.
- Insular race.
- 158e. *Rupornis magnirostris gracilis* Ridgw., Pr. U.S.N. Mus., viii., p. 94 (1885). [*Cozumel I.*] Cozumel I. Yucatan.
- Length ♀ 14.50, wing 10 in. ; tail dark brown imperfectly banded with white and shaded with dull rufous ; below dark rufous narrowly banded with white.
- 158f. *Rupornis magnirostris ridgwayi* Cory, Auk, i., p. 4 (1884). [*S. Domingo*]. Haiti and S. S. Domingo.
- Larger ; above brown, darker on head ; quills paler rufous than in *R. m. ruficauda*, and with bases pale rufous externally ; tail pale rufous banded with dark brown ; below buffy-white, very narrowly and indistinctly barred with pale rufous.
- 158g. *Rupornis magnirostris pucherani*, J. & E. Verr. Rev. et Mag. de Zool., 1855, p. 350 [type loc. sugg. *Paraguay*, Brab. & Chubb.]. Paraguay, S.E. Brazil, Bolivia, Argentina.
- Above ashy brown, head much clearer ; tail with the interspaces ashy-brown ; throat ashy-grey ; chest pale rufous, rest of under parts fulvous barred with pale rufous.
- 158h. *Rupornis magnirostris nattereri* (Scl. & Salv.) P.Z.S. 1869, p. 132. [*Sao Paulo et Matto Grosso*.] S.E. & C. Brazil.
Natterer's Hawk.
- Uniform black, lower upper tail-coverts and base of tail white ; tail black, with a single band of ashy-brown ; tibial plumes rufous ; under tail-coverts buffy-white.

159. *Rupornis leucorhos* (Quoy et Gaim.), Voy. de l'Uran. p. 91, pl. 13 (1824). [*Brazil.*] White-rumped Hawk. Brazil to Peru, Colombia, Venezuela.

Gen. XXXVI. BUSARELLUS Lafr. (1842.)

Size of *Buteo*; sole of foot covered with rugose and throny spicules (like that of *Pandion*) tip of upper mandible much curved.

Above bright chestnut, with narrow black shaft stripes; outermost wing-coverts and quills black; basal half of tail chestnut banded with black, apical half black with narrow white tip; head and neck creamy buff; lower throat black; below chestnut.

160. *Busarellus nigricollis* (Lath.), Ind. Orn. I, p. 35 (1790). [*Cayenne.*] Black-collared Hawk. Brazil, Guiana, Peru, Paraguay.

Gen. XXXVII. BUTEOGALLUS Less. (1831.)

Size nearly the same; outer toe hardly longer than inner; soles of feet smooth, wings short of tail by less than length of hind toe.

Plumage above black, with rufous margins on mantle and wing-coverts; quills bright chestnut, the outer webs black; tail black with white tip and indistinct median band of white; throat blackish; below rufous, narrowly barred with black.

161. *Buteogallus equinoctialis* (Gmel.), S.N. i. p. 265 (1788). [*Cayenne.*] Equinoctial Buzzard. Guiana; Colombia, Paraguay.

Gen. XXXVIII. URUBITINGA Lafr. (1837.)

Rather larger: tarsus scutellate before and behind, reticulated laterally; distance between tips of wing and tail greater than length of hind toe; secondaries nearly as long as primaries; general plumage black.

Above and below black; upper tail-coverts mostly white; basal half of tail white with a broad black band; apical half black with white tip.

162. *Urubitinga urubitinga urubitinga* (Gmel.), Chile,
S.N. i., p. 265 (1788). [*Brazil.*] Argentina,
Brazilian Eagle. Paraguay,
E. Peru,
Brazil,
Venezuela,
Guiana,
C. America
to Costa Rica
- Under wing-coverts and tibiae with more white; tail with less white and an extra black bar.
- 162a. *Urubitinga urubitinga ridgwayi* Gurney, Guatemala
List Diurn. Bds. Prey, p. 77, 148 (1884). and Mexico.
[*Guatemala.*]
Ridgway's Black Hawk.
- 162b. *Urubitinga urubitinga subtilis* Thayer and S.W.
Bangs, Bull. Mus. Harvard, xlv. p. 94. Colombia.
(1905). [*Gorgona I.*]
Gorgona Black Hawk.
- Black above and below; upper and under tail-coverts narrowly tipped with white; tail with a broad white median band and white tip.
163. *Urubitinga anthracina anthracina* (Licht.), Tropical
Preis. Verz.; Vogel, Mexico, etc., p. 3 (1830). America to
[*Mexico.*] W. Indies,
Mexican Black Hawk. Guatemala,
Mexico and
Arizona.
- Doubtful form; said to be dark chocolate brown with 2 more or less distinct extra white bands at base of tail.
- 163a. *Urubitinga anthracina gundlachii* Cab., J. Cuba.
f.O. (1854). [*Cuba.*]
Cuban Black Hawk.

Gen. XXXIX. LEUCOPTERNIS Kaup (1847).

Similar in structure to *Urubitinga*; nostril nearly circular; tarsus not more than twice as long as middle toe; plumage usually more white than black.

Plumage uniform bluish slate colour; tail black, with a white median band and white tip.

164. *Leucopternis schistacea schistacea* (Sundev.) E. Peru
 Öfv. K. Vet. Akad. Förh. 1849, p. 132. Colombia,
 [Brazil.] C. and N.E.
 Slate-coloured Hawk. Brazil.
- Smaller : Uniform leaden grey ; wings and tail black, latter with a median bar of ashy-white ; under wing-coverts white and tibial plumes barred with same.
- 164a. *Leucopternis schistacea plumbea* Salv., Ibis, Ecuador,
 1872, p. 240, pl. viii. [Ecuador.] W. Colombia
 Plumbeous Hawk.
- General plumage white ; head streaked with black, neck all round white ; mantle and wing-coverts black varied with white ; quills black ; tail white with broad sub-terminal black band.
165. *Leucopternis albicollis albicollis* (Lath.), Ind. Guiana,
 Orn. 1, p. 36 (1790). [Cayenne.] Trinidad,
 White-collared Hawk. Venezuela,
 N. Brazil.
- Similar, but rather smaller and with head plumbeous ; upper parts plumbeous instead of black ; black sub-terminal band on tail narrower.
- 165a. *Leucopternis albicollis occidentalis* Salv. W. Ecuador.
 Ibis. 1876, p. 496. [Puna I.]
 Puna White-collared Hawk.
- Larger ; above and below white ; tail with broad sub-terminal black band ; greater wing-coverts and secondaries black tipped with white ; primaries black.
166. *Leucopternis ghiesbreghtii*, Du Bus, Esq. S. Mexico
 Orn. pl. 1 (1845). [S. Mexico.] to
 Ghiesbreght's Hawk. Panama.
- Above blackish-slate, most of feathers tipped or barred with white ; head, neck and underparts white ; basal half of tail black, terminal white.
167. *Leucopternis palliata* (Pelz.), Sitz. Akad. S. Brazil.
 Wien. xlv., p. 11. (1861, ex Natterer.)
 [Ypanema.]
 Mantled Hawk.

- Above more slate coloured, with less white variegation : neck shaded with greyish ; tail with narrow sub-terminal black band on white apical half.
168. *Leucopternis lacernulata* (Temm.), Pl. Col. S.E. Brazil
1, pl. 437 (1827) [*Brazil.*]
White-headed Hawk.
- Smaller : above slate-black ; above eye a white stripe, and nape streaked and margined with same ; tail black, tipped with ashy-brown, with a median band of white ; below white narrowly streaked with black on sides of chest.
169. *Leucopternis kuhli* Bp., Consp. Av. 1, p. 19, N.E. Brazil.
1849. [*Para.*]
White-browed Hawk.
- Above black ; head, neck and lower parts white ; lores and stripe behind eye black ; crown and nape streaked with black ; tail black with broad band of white about $\frac{1}{3}$ rd from end.
170. *Leucopternis melanops* (Lath.), Ind. Orn. 1, p. Guiana ;
37 (1790). [*Cayenne.*] N. Brazil.
Black-faced Hawk.
- Above uniform plumbeous ; wings and tail black ; latter with a narrow band of white near middle ; below white with a few black shaft stripes on sides of breast.
171. *Leucopternis semi-plumbea* (Lawr.) Ann. Colombia
Lyc. N.Y. vii., p. 288 (1861). [*Panama.*] and Panama
Semi-plumbeous Hawk. to Costa
Rica.
- Above, also throat and foreneck, slaty-black, below white narrowly barred with black ; tail black with a median band of white, and a few anterior incomplete bars of same.
172. *Leucopternis princeps* Sclat., P.Z.S. 1865, p. Costa
429, pl. xxiv. [*Costa Rica.*] Rica.
Barred Hawk. N. Ecuador.

Gen. XL. HARPYHALIAETUS Lafr. (1842.)

Much larger than *Buteo* ; Head with a long occipital crest ; tail short, not three times as long as tarsus.

Length ad. 33, wing 22 in. ; tail 13.5 in. ; above and below ashy-brown, shaded with chocolate ; quills blackish ; secondaries ashy-grey mottled with black and with a broad sub-terminal band of same ; tail black, tipped with white, with broad white median band, and a second indistinct one nearer base.

173. *Harpyhaliaetus coronatus coronatus* (Vieill.) Paraguay,
N. Diet. xiv., p. 237 (1817). [*Paraguay.*] Bolivia,
Crowned Harpy. Patagonia,
S. Brazil,

Much darker ; general colour bluish-black, shaded with chocolate ; crest much shorter.

- 173a. *Harpyhaliaetus coronatus solitarius* Tsch. Chili,
Arch. f. Naturg. 1844, p. 264. [*Peru.*] Peru,
Solitary Harpy. Ecuador,
Colombia.

Gen. XLI. MORPHNUS Cuv. (1817)

Size similar ; head crested ; tail long, more than four times as long as tarsus ; toes very short ; claws large.

Length ♀ 36, wing 19.3, tail 17 in. ; above brownish-black ; head and neck greyish-brown ; wings barred with lighter ashy-brown ; tail black, tipped with whitish and with from 3 to 5 bands of ashy-brown ; chest ashy-brown ; below white barred with rufous or brown.

174. *Morphnus guianensis guianensis* (Daud.) Guiana,
Traité, ii., p. 78 (1800). [*Guiana.*] E. Peru,
Guiana Crested Eagle. Paraguay,
Colombia.

Crown and sides of head dark slate ; above blackish-brown ; wing-coverts more conspicuously barred with white ; tail with 4 bands of white, mottled and tinged with brownish-grey ; throat and upper breast blackish ; below closely barred with black and white.

- 174a. *Morphnus guianensis tæniatus* Gurney, Ibis, Ecuador.
1879, p. 176, pl. iii. [*Sarayacu.*]
Ecuadorian Crested Eagle.

Gen. XLII. THRASAËTUS Gray (1837)

Larger; bill robust, culmen much curved; feet very powerful; tarsus almost entirely bare, the scutallæ rough and irregular; claws very large and strong; head with broad depressed crest, erectile.

Length 38 in.; wing 22.30; above, also crest and chest-patch, ashy grey; tail irregularly barred with black; head, neck and underparts white.*

175. *Thrasaëtus harpyia* (Linn.) S.N., i., p. 86 (1758) [*Mexico*].
Great Harpy Eagle. Paraguay and Brazil; N. to Mexico.

Gen. XLIII. HARPYOPSIS Salvad. (1875).

Size large; head crested; tail long and rounded.

Length about 34 in.; wing 19 in.; above dusky brown; below dirty white; chest greyish; tail with 6 indistinct transverse bands.

176. *Harpyopsis novæ-guinæ* Salvad., Ann. Mus. Civ. Genov., vii., p. 682 (1875). [*Yule Island*].
New Guinea Hawk-Eagle. S.E. New Guinea.

SUB. FAM. IV. GYPAETINÆ.

Gen. XLIV. GYPAETUS Storr (1784).

Nostrils hidden by stiff bristles: chin with a long tuft of black bristles; tarsus more or less feathered.

Size large: length 41 in.; wing 29.50; head white, a line each side of crown and another below ear black; general plumage above black with white shafts; wings and tail brown and scapulars washed with ochraceous brown; below tawny; tarsus feathered to the toes.

177. *Gypaetus barbatus grandis* Storr, Alpenreise vom Jahr 1781, p. 69 (1784) [*Switzerland*].
Bearded Vulture. Spain, Alps and S.E. Europe, Central Asia, Himalayas, N. China.

* Immature birds are black above and on chest; head and neck ashy-grey; below white.

Below warmer tawny reddish.

- 177a. *Gypaetus barbatus barbatus* (Linn.) S.N. 1, Atlas Mtns.,
p. 87. (1758.) [*Africa.*] N. Africa
Atlas Bearded Vulture. (Morocco,
Algeria,
Tunis.)

Length 38 in. ; wing 29 in. ; cheeks white
without the black markings : tarsus bare
towards lower part.

- 177b. *Gypaetus barbatus meridionalis*, Keys. and S. Africa,
Blas., Wirbelt. Europ. p. xxviii. (1840). [*S. Nubia,
Africa.*] Abyssinia.
Southern Bearded Vulture.

SUB. FAM. V. AQUILINÆ.

Outer toe connected to middle toe by membrane :
tibia much longer than tarsus, which is reticulated
on hinder aspect and generally more or less clothed
with feathers ; bill large, long and powerful ; cutting
edge of upper mandible festooned, but not toothed ;
wings long ; tail moderate ; sexes generally alike.

Gen. XLV. UROAETUS Kaup (1844).

Tail strongly graduated, wedge-shaped ; tarsi
clothed with feathers all round to base of toes.

Size large ; length 38, wing 24.2 in. ; general
colour above and below black, browner on
wings ; nape tawny chestnut ; upper tail-
coverts brown mottled with white ; tail
feathers white at base of inner web.

178. *Uroaetus audax audax* (Lath.) Ind. Orn. E. & W.
Suppl. p. ii (1801). [*New South Wales.*] Australia,
Wedge-tailed Eagle. Tasmania.

Gen. XLVI. AQUILA Briss. (1760).

Tail nearly square or moderately rounded ; tarsi
feathered all round : toes reticulated above, except
last phalanx which is scaled ; head without crest ;
claws powerful and curved.

Length (♀) 37, wing 26 in. ; plumage black,
with back, rump and some of scapulars white ;
immature fawn colour, tail uniform.

179. *Aquila verreauxi* Less., Cent. Zool. p. 105, S. Africa,
taf. 38 (1830). [*Interior of Cape of Good N.E. Africa
Hope.*] (Abyssinia)
Palestine
(occ.)

Length ♂ 32, wing 23-24.5 in. ; ♀ average length 35.5, wing 26-27.50 in. ; general plumage above blackish-brown, with paler margins : crown brown ; nape and hind neck tawny rufous (W. Europe ; much paler in E. European birds.) ; tail blackish at apical fourth, browner towards base, middle irregularly banded with grey ; below blackish with brown bases to the feathers ; in younger birds basal half of tail white, centre mottled brown, apical third black.

180. *Aquila chrysaetos chrysaetos* (Linn.), S.N.i., p. 88 (1758). [*Europe.*] Europe, N. Asia to N. China.
Golden Eagle.
- Averaging smaller ; plumage darker and duller.
- 180a. *Aquila chrysaetos occidentalis*, Olphe-Galliard Faune. Orn. Eur. Occ., ii, fasc. xviii, p. 23. (Mar. 1889.) [*Spain.*] Spain and N. Africa (Morocco, Algeria, Tunis.)
Spanish Golden Eagle.
- Larger : length ♀ 40, wing 27.9 in. ; colour generally brighter.
- 180b. *Aquila chrysaetos daphanea*, Hodgs. in Gray's Zool. Misc. p. 81 (1844). [*Nom nud.-Nepal.*] High Central Asia, Himalayas.
Menz. Orn. Turkest, 1, p. 75 (1888). [*Haute Asie.*]
Himalayan Golden Eagle.
- Larger and more rufous ; max. length ♀ 40 in. ; wing 27 in. [Doubtfully distinct.]
- 180c. *Aquila chrysaetos canadensis* (Linn.) S.N. i., p. 88 (1758) [*Canada.*] N. America Arctic Regions S. to California and Alleghenies in N. Carolina.
American Golden Eagle.

Smaller ; wing ♂ 23.5 in. ; head and neck above dull yellowish isabelline ; forehead marked with dark brown, and nape tinged with rufous ; general plumage blackish-brown ; some of the scapulars pure white ; tail dark grey with broad terminal blackish band ; immature brown ; tail uniform.

181. *Aquila heliaca heliaca* Savigny, Deser. Egypte Ois. p. 82, pl. 12 (1809). [*Upper Egypt.*] Imperial Eagle. S.E. Europe to C. Asia, N. India, China, Burma.
- Size similar; forehead and crown blackish brown: edge of wing and some of scapulars white, forming a conspicuous shoulder patch; immature fawn colour, tail uniform.
- 181a. *Aquila heliaca adalberti* Brehm, Ber. Vers. deutsch. Orn. Ges. 1860, p. 60. (1861.) [*Spain.*] White-shouldered Eagle. Spain; N.W. Africa.
- Rather smaller: length ♀ 30, wing 23 in.; plumage brown, paler below; head brown, nape patch fulvous; quills, larger scapulars and tail blackish-brown, latter with fulvous tip and obsolete ashy bars; edge of wing white, forming conspicuous white shoulder; immature ashy-brown, tail darker, with terminal band of fawn.
182. *Aquila nipalensis nipalensis* Hodgs., Asiat. Res. xviii, pt. 2, pl. 1, pp. 13-16 (1833). [*Nepal.*] Eastern Steppe Eagle. Central Asia N.W. India, and E. Siberia; in winter to Africa.
- Smaller: wing ♂ 21.50, ♀ 22.50.
- 182a. *Aquila nipalensis orientalis* Cab., J. f. O. 1854, p. 369. [*Sarepta, Volga.*] Western Steppe Eagle. Steppes of S.E. Europe and W. Asia.
- Length ♀ 31, wing 22 in.; ♂ length 28, wing 20 in.; general colour above and below tawny to rufous brown; head and neck somewhat marked with darker brown; scapulars and wing-coverts darker brown, blotched with pale brown; quills and tail blackish-brown, with indications of greyish bars; under parts streaked with darker brown; immature tawny, tail brown tipped with fulvous.
183. *Aquila rapax rapax* (Temm.) Pl. Col., pl. 455 (1828). [*Pte. mérid. de l'Afrique.*] Tawny Eagle. Africa, from Cape Colony N. to C. and E. Africa; C. Asia and N.W. India.

General colour pale clay or ochraceous colour.

- 183a. *Aquila rapax albicans* Rüpp., Neue Wirbelth. p. 34, pl. 13 (1835). [*Prov. Simen, Abys.*] N.E. Africa (Abysinia, Somaliland), Arabia.
Rüppell's Tawny Eagle.

Size similar: length ♂ 28, wing 20.5 in.; general colour fulvous brown, paler on head and neck and below, above with lighter margins to the feathers, especially on wing-coverts: tail dark brown with fulvous tip and 8 or 9 indistinct greyish bars on centre feathers.

- 183b. *Aquila rapax vindhiana* Frankl., P. Z.S. 1831, p. 114. [*Vindhya Mtns., Central India.*] Indian Peninsula and Himalayas
Indian Tawny Eagle.

Smaller; head, neck all round and inter-scapulary region chocolate brown.

- 183c. *Aquila rapax belisarius* (Levaill. jun.) Expl. Sc. Alg. Ois. pl. 2 (1850). [*Guelma, N.E. Algeria.*] Algeria.
Algerian Tawny Eagle.

Nostrils round; length, ♀, about 29, wing 21.50-23 in.; ♂, wing 20 in.; plumage above and below blackish brown; tail unbarred; younger birds purplish brown, much spotted with brownish-buff above and striped below: tail blackish, barred dark brown.

184. *Aquila clanga* Pall., Zoogr. Rosso-Asiat., i, p. 351 (1827). [*In Rossia Sibiriaque univ-ersa.*] E. & S.E. Europe, south to Balkans, E. to Turkestan, S. Siberia, N. India and China; in winter to N.E. Africa, India, Burma; cas. Brit. Isles.
Greater Spotted Eagle

Smaller; wing ♀ 19-20 in.; ♂ 17.70-19 in.; plumage browner: crown and nape creamy brown: tail feathers with obsolete lighter

bars ; younger birds less spotted than those of *A. clanga* and tail unbarred : nape patch ochraceous rufous.

185. *Aquila pomarina* Brehm, Vög. Deutschl., p. 27 (1831). [*Pomerania*.]
Lesser Spotted Eagle. C. Europe from N. Germany to Bessarabia ; cas. W. Europe ; in winter to N.E. Africa.
- Sexes nearly similar in size ; wing ♀ 19.50, ♂ 19.15 in ; bill more feeble, tarsi more slender ; wings generally exceeding tail in length ; least wing-coverts with small spots of white in immature birds.
- 185a. *Aquila pomarina hastata* (Less.), Vog. Béläng. Zool., p. 217 (1834). [*Bengal*].
Long-legged Eagle. Indian Peninsula : Burmese countries.

Gen. XLVII. HIERAAËTUS Kaup (1844)

General characters of *Aquila*, but bill more slender ; tarsi feathered to the toes.

Length ♀ 26, wing 21 in. ; wing ♂ 19.6 in. ; above deep brown, feathers mostly with paler margins and white bases ; tail ashy, with broad sub-terminal dark brown band, and 5 or 6 indistinct bars ; below white, with blackish-brown shaft stripes, the flanks and legs buffish, barred with black.

186. *Hieraaëtus fasciatus fasciatus* (Vieill.), Mem. Soc. Linn. Paris, ii., pt. 2, p. 152 (1822). [*Montpellier*.]
Bonelli's Eagle. S. Europe (S. France and Spain to S. Russia), Asia Minor, Turkestan, Palestine, India, China, N. Africa.
- [Smaller but doubtful form.]
- 186a. *Hieraaëtus fasciatus minor* Erlanger, J.f.O., 1904, p. 187, taf. x., fig. 42. S. Arabia ; E. Africa (Somaliland, Mozambique).

Wing ♀ 18.3 in.; above blackish-brown, mottled with white; below purer white streaked with black on breast, and with large spots on under tail-coverts; under wing-coverts black.

- 186b. *Hieraaëtus fasciatus spilogaster* (Bp.), Rev. et Mag. Zool., 1850, p. 487 [*Abyssinia, ex Du Bus. M.S.*].
Tropical Africa; rare in S. Africa.
African Hawk-Eagle.

Smaller; wing ♀ 16.5, ♂ 14.0; above brown, head and neck isabelline; tail with obsolete darker bars on outer feathers; below white, throat and breast washed with fawn and streaked with reddish brown or blackish; species subject to variation; younger birds dull brown below with black shaft-stripes, and a white shoulder patch.

187. *Hieraaëtus pennatus* (Gmel.), S.N., i., p. 272 (1788) [*ex Brisson, l. c.*].
S. Europe (Spain to S. Russia); Africa, C. Asia, India, Ceylon.
Booted Eagle.

Smaller, and with a short occipital crest; length ad. 21.5 in., wing 15 in.; above brown, crown darker; crest, neck and under-surface rufous, with black shaft-streaks; tail mottled greyish-brown, with 7 or 8 dark brown bars.

188. *Hieraaëtus morphnoides morphnoides* (Gould), P.Z.S., 1840, p. 161 (1841). [*Upper Hunter, N.S.W.*].
E. and W. Australia.
Little Eagle.

Below heavily striped with dark brown.

189. *Hieraaëtus weiskei* Reichenow, Orn. M.B., viii., p. 185 (1900). [*Astrolabe Mtns.*].
S.E. New Guinea.
New Guinea Little Eagle.

Below pale isabelline: tail with 7 dark bands.

190. *Hieraaëtus ayresi* Gurney, Ibis, 1862, p. 149, pl. iv. [*Natal.*].
Tropical Africa to S. Africa.
Ayres' Little Eagle [= *Lophotriorchis lucani* Sharpe.]

Length ♀ 26, wing 18 in. ; head with distinct occipital crest : plumage above brown, with paler margins ; tail dark brown, tipped with whitish, with obsolete lighter bars on inner webs of feathers ; below white brown, varied with dark brown on throat and breast.

191. *Hieraaëtus wahlbergi* (Sundev.) Æfv. K. Akad. Tropical
Stockh., 1850, p. 109. [*Calfraria superiori* Africa.
propre 25° lat.]

Gen. XLVIII. LOPHOTRIORCHIS Sharpe (1874).

Head with a long wedge-shaped crest.

Length 21, wing 14.1 in. ; above black ; cheeks, throat and breast white ; below tawny rufous, with black shaft-stripes.

192. *Lophotriorchis kieneri* (Geoffr. St. Hilaire), Indian
Rev. Zool., 1845, pl. 35. [*Himalaya*]. Peninsula,
Kiener's Crested Eagle. Ceylon, Indo-
Chinese
Provinces,
Malay
Peninsula to
Celebes and
Lesser Sunda
Islands.

Larger ; length 26.5, wing 20.2, crest 3.3 in. ; above glossy-black ; tail ashy-grey, basal third black ; throat black ; below tawny rufous with black shaft-streaks ; flanks black

193. *Lophotriorchis isidorei* (Des Murs), Rev. Zool., Colombia.
1845, p. 177. [*Santa Fé de Bogota*.]
Isidore's Crested Eagle.

Gen. XLIX. ICTINAETUS Jerd. (1844).

Head crested ; claws nearly straight, the circumference of inner claw exceeding the length of outer toe (which is very short).

Wing 20–20.50 in. ; black ; the quills mottled with white near base ; tail feathers barred with ashy above, mottled with white below

194. *Ictinaetus malayensis malayensis* (Temm.), Malay
Pl. Col. i., pl. 117 (1824). [*ex Reinw. MS.*] Archipelago
Malayan Crested Eagle. (Sumatra,
Borneo, etc.)

- Larger ; wing ♂ 21.50.
 194a. *Ictinaetus malayensis perniger* Hodgs., Jnl. As. Soc. Bengal, v., 1836, p. 227. [*Nepal.*] India, Ceylon, Burma, Malay Peninsula.

Gen. L. SPIZIASTUR Gray (1841).

Head crested ; claws curved and powerful ; the circumference of inner claw about equal to length of outer toe and claw.

Length ♀ 24 in., ♂ 21 in. ; wing ♀ 16.4, ♂ 15 in. ; above blackish, quills and tail ashy brown, slightly tipped with fulvous and banded with black ; head, neck and under surface white.

195. *Spiziastur melanoleucus* (Vieill.), N. Diet., iv., p. 482 (1816). [*Guiana*] Central & S. America.
 Black and White Crested Eagle.

Gen. LI. SPIZAETUS Vieill. (1816).

Tarsi feathered as before ; crest sometimes fully developed, sometimes absent ; wings short, falling short of tail by more than length of crest.

Length ♀ 28.5 in., wing 16.2 in. ; ♂ 24, wing 13.4 in. ; occipital crest 3 in. long ; sides and back of neck bright rufous ; above black, feathers brown at base ; wings brown, barred with blackish ; tail brown with 4 or 5 blackish bands ; below white, chest slightly streaked and abdomen broadly banded with black ; on each side of face below eye a black moustachial band. Young much browner and with 6 bands on tail.

196. *Spizaetus ornatus* (Daud.), Traité, ii., p 77 (1800). [*Cayenne.*] Central and S. America, S. to Paraguay.
 Manduit's Hawk-Eagle.

Size about the same ; above and below black, browner on wings ; under surface of wing with 3 irregular bands of white ; upper and under tail coverts slightly spotted with white ; tail

black with 4 bands of ashy brown. Young browner above and more spotted with white below; tail with 6 bands.

197. *Spizaetus tyrannus* (Wied), Reis. Bras., i., p. 300 (1820). [*Rio Belmonte*].
Tyrant Hawk-Eagle.

Central and S. America, from Guatemala to S.E. Brazil.

Larger; length ♀ 38 in., wing 27.5. Above dark sepia brown; feathers of head and neck with whitish brown margins and white bases; wings barred with blackish; tail with 6 bands of ashy grey; fore neck and chest dark brown; throat and under parts white, sparingly spotted with dark brown, especially on flanks. Young paler above, more buffy white below, the spots nearly absent and with about 11 bands on tail.

198. *Spizaetus bellicosus* (Daud.), Traité, ii., p. 38 (1800). [*Great Namaqualand*].
Martial Hawk-Eagle.

S. Africa, E. Africa, N. to Shoa, Abyssinia, and Bogosland; Nigeria.

Rather smaller; above black; wings brown; quills externally shaded with pale ashy grey, and with a broad subterminal band of black; tail with 2 broad bands of ashy grey and remains of a third; throat black; below yellowish buff, whiter towards vent, broadly banded with black, the chest almost uniform; under wing coverts chestnut. Young above brown with indistinct darker bands and whitish margins; tail with 3 lighter bands; below white.

199. *Spizaetus coronatus* (Linn.), S.N., ed. xii., i., p. 124 (1766). [*Guinea in W. Africa*].
Crowned Hawk-Eagle.

S. and W. Africa.

Smaller; length ♀ 32 in., wing 20; ♂ length 28 in., wing 18.50, crest 2.8 in.; above blackish brown, with paler margins, especially to feathers of head and hind neck; wings paler, banded with dark brown; tail ashy brown with 4 blackish brown bands; throat white, with black central stripe; chest fawn

with black shaft streaks; below brown spotted and barred with white. Young have head and neck white with dark centres to the feathers; tail with 6 darker bands; below white, slightly streaked with dark brown; flanks brown.

200. *Spizaetus nipalensis nipalensis* (Hodgs.) Jnl. Himalayas, S. in winter to plains of India and Malay Peninsula; China ?
As. Soc. Beng., v., p. 229 (1836) [*Nepal*].
Himalayan Hawk-Eagle.

With the white bands below broader and more regular.

- 200a. *Spizaetus nipalensis kluarti* Legge, Ibis, 1878, Ceylon.
p. 202 [*Ceylon*].
Mountain Hawk-Eagle.

Larger; ♂ about equal to ♀ of typical race.

- 200b. *Spizaetus nipalensis orientalis* Temm. & Schleg. N. Japan.
in Siebold's Faun. Jap. Aves, p. 7, pl. 3 (text 1844, pl. 1845) [*Japan*].
Japanese Hawk-Eagle.

[Not separable unless a breeding bird in China.]

- 200c. *Spizaetus nipalensis fokiensis*, W. Selat. in China.
MS. Cat. Accip. Coll. Brit. Mus. [♂ *Ah Ch'ung, Fokien Prov. China, Coll. B.M.*]
Chinese Hawk-Eagle.

Length ♀ 32 in., wing 17.8; ♂ wing 16 in. Above brown; feathers of hind neck and mantle with pale bases and black shaft streaks; crest black, 3.8 in. long; wing quills rich brown, barred with blackish; tail with broad blackish subterminal band and 3 narrower bands; throat white with central black stripe and bordered by 2 black moustachial stripes; below brown, more rufous and mottled with white on chest.

201. *Spizaetus cirrhatus cirrhatus* (Gmel.), S.N., i., Indian Peninsula.
p. 274 (1788) [*India*].
Indian Hawk-Eagle.

Smaller; wing 15.20—14 in.

- 201a. *Spizaetus cirrhatus ceylonensis* (Gmel.), S.N., Ceylon.
i., p. 275 [*Ceylon*].
Ceylonese Hawk-Eagle.

Small insular race.

- 201b. *Spizaetus cirrhatus andamanensis* Tytler, Proc. As. Soc. Beng., 1865, p. 112 [*Port Blair, And. Is.*] Andaman Hawk-Eagle.

Size of *S. c. cirrhatus*, but with crest very slight; with dusky phase [*S. limnaetus* Horsf.] nearly uniform chocolate brown, and pale phase [*S. caligatus* (Raffles)] dark brown above, below white with large longitudinal brown markings, the thighs barred.

- 201c. *Spizaetus cirrhatus limnaetus* (Horsf.), Tr. Linn. Soc., xiii., p. 138 (1821) [*Java.*] Javan Hawk-Eagle. Java, Sumatra, Penang.

Larger; below white, without the dark markings.

- 201d. *Spizaetus cirrhatus floris*, Hart., Nov. Zool., v., p. 46 (1898). Lesser Sunda Is. (Flores).

Smaller; length ad. 22.50, wing 13 in.; above black with occipital crest, tipped with white, 2.75 in. long; wing quills brown, tipped white, barred with black and with broad black subterminal band; tail ashy brown, with broad basal and subterminal bands of black; below white, breast with large black spots and belly banded with black.

202. *Spizaetus alboniger* (Blyth), Jnl. As. Soc. Beng., xiv., p. 173 (1845) [*Malacca.*] Borneo, Greater Sunda Is., Malayan Peninsula, Tenasserim.

Rather larger, length 25 in., wing 14.75, crest 2.50 in.; above dark umber brown; crest with base of feathers white; tail paler brown with 7 darker bands; throat as in *S. c. cirrhatus*; below yellowish rufous; chest heavily marked with dark brown lanceolate spots; thighs and under tail-coverts barred with brown and white.

203. *Spizaetus philippinensis* Gurney, in Gould's Bds. Asia, pt. xv. (1863) [*Philippine Is.*] Philippine Hawk-Eagle. Philippine Islands.

Larger; length ♀ 30 in., wing 21 in.; ♂ length 24 in., wing 19.7 in.; blackish brown, blacker on head; lighter and greyer on wings and tail; tail with 6 or 7 obsolete bars.

204. *Spizaetus gurneyi* (Gray), P.Z.S., 1860, p. 342, pl. 169. [*Batchian.*]
Gurney's Hawk-Eagle.

Molucca Is.,
Aru Is.,
Waigiou,
New Guinea.

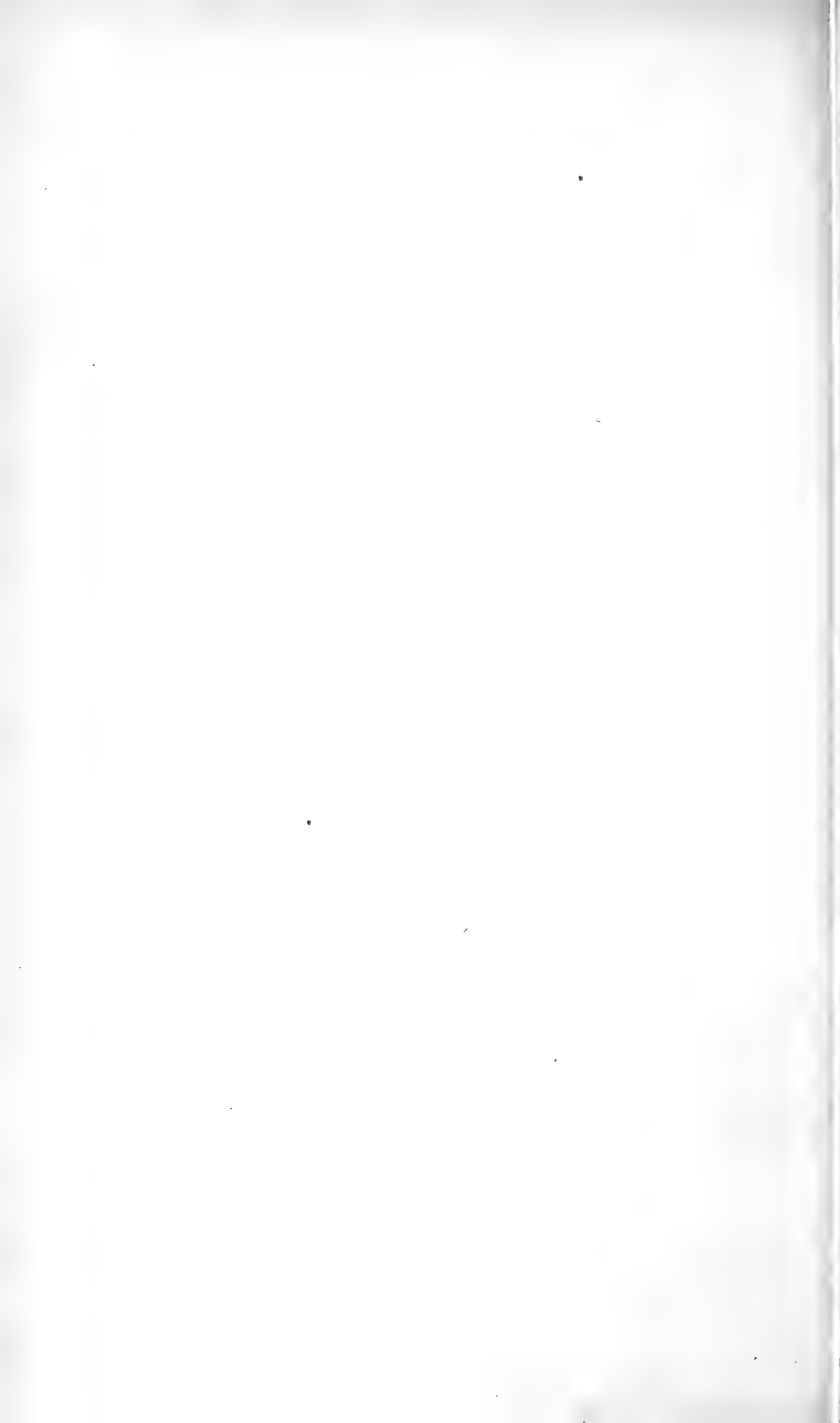
Gen. LII. LOPHOAETUS Kaup (1847).

Crest feathers very long and pendant; tarsi feathered as in preceding genera.

Size small; length ♂ 21, wing 15.50, crest 4.75; ♂ plumage glossy black, with a brown shade on wings; quills white at base, forming a conspicuous patch, and banded with white on inner webs below; tail with 3 greyish bands on middle feathers, becoming broader and whitish on outer ones; ♀ larger and much browner; juv. deep chocolate brown.

205. *Lophoaetus occipitalis* (Daud.), Traité, ii., p. 40 (1800). [*Anteniquoi country.*]
Black-Crested Eagle.

S. Africa to
E. and W.
Tropical
Africa.



With complete list of references
PART III.—JANUARY 20, 1920.

PRICE 4/-

A

SYNOPTICAL LIST

OF THE

ACCIPITRES

(Diurnal Birds of Prey)

PART III.

(HERPETOTHERES TO PERNIS)

Comprising described Species and Subspecies, with their
Characters and Distribution

BY

H. KIRKE SWANN, F.Z.S.

Corresponding Fellow of Amer. Orn. Union.

LONDON :

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1920.



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Gen. LIII. HERPETOTHERES Vieill. (1817).

Tarsus bare on lower portion, reticulated in front ;
 bill with upper mandible slightly festooned ; nostrils
 circular with osseous margins ; wings short.

Length ♂ (Ecuador) 16 in. ; wing 10.25 ; tail
 8 in. ; ♀ wing 11–11.20 in. ; above brown ;
 head crested, crown buffish white with brown
 shaft streaks ; hind part of face and broad
 nuchal band black ; fore cheek, side of neck,
 collar round hind neck and entire under parts
 buffish white ; upper tail-coverts creamy buff ;
 tail dark brown, with 4 creamy buff bands in
 the form of pairs of oval spots not extending
 quite across webs.

206. *Herpetotheres cachinnans cachinnans* (Linn.), From Bolivia
 S.N., i., p. 90 (1758). [*"America meridionalis"* and Paraguay
 = type loc. subst. *Surinam* Berlepsch.] N. to South
 Laughing Hawk. Mexico.

Smaller and more richly coloured ; below
 nearly uniform deeper buff ; head deeper
 buff ; wing ♂ 10 in.

- 206a. *Herpetotheres cachinnans fulvescens* Chapm., W. Colombia,
 Bull. Am. Mus. N.H., xxxiv., p. 638 (1915). (Pacific side
 [*Alto Bonito, R. Sucio, W. Colomb.*] of Andes),

[Not seen.]

- 206b. *Herpetotheres cachinnans chapmani* Bangs & Mexico.
 Penard, Bull. M.C.Z., lxii., pp. 25– (1918).

Gen. LIV. DRYOTRIORCHIS Shelley (1874)

Tarsus bare on lower portion; nostrils perpendicular ovals; head with a short crest of lanceolate feathers; wings short.

Length ad. 22.5; wing 11.9 in.; above dark brown; nape and scapulars with white bases to the feathers; quills brown, barred with darker brown, the inner webs white; tail with 6 blackish bands; below white; fawn colour on throat and chest, the former with a black central stripe; chest and breast with black spot on tip of each feather, becoming bars on flanks and thighs; vent and under tail-coverts with spots of rufous.

207. *Dryotriorchis spectabilis spectabilis* (Schl.), W. Africa
Neder. Tijdschr. Dierk., i., p. 131, pl. 6 (1863). (Gold Coast)
[*St. George Elmina, Gold Coast*, type in
Leyd. Mus.]
Beautiful Wood-Hawk.

Wing ♂ 11.5 in.; chest uniform creamy white, without the large black spots (except in immature birds).

- 207a. *Dryotriorchis spectabilis batesi* Sharpe, Ibis, Cameroon,
1904, pp. 601-2. [*Efulen, Cameroon*, type in Gaboon,
in Brit. Mus.] Congo
Bates's Wood-Hawk. Region.

Gen. LV. EUTRIORCHIS Sharpe (1875).

Wings remarkably short, not extending much beyond base of tail; tail elongated; head with a short crest.

Above brown, tail with about 8 blackish bars; below white narrowly banded with black; throat and chest ashy.

208. *Eutriorchis astur* Sharpe, P.Z.S., 1875, p. 73, Madagascar.
pl. xiii. [*S. Madagascar*, type in Brit. Mus.]
Madagascar Serpent-Eagle.

Gen. LVI. CIRCAËTUS Vieill. (1816).

Tarsus reticulated; head with a short crest as in *Dryotriorchis*; wings long.

Size large ; length ♀ 31 in. ; wing 21.3 ; ♂ 26 in. ; wing 19.65 ; above dark brown, with a purplish gloss, head and wing-coverts paler ; forehead and face whitish, with lines of black ; secondaries barred with darker brown and with a broad subterminal band ; quills black ; tail tipped with white and with 3 blackish bands ; below white, throat and chest heavily striped and flanks and abdomen barred with brown ; juv. below pale earthy brown, abdomen white, spotted and barred with brown ; tail with 4 darker bands.

209. *Circaëtus gallicus* (Gmel.), S.N., i., p. 259 (1788). [*France.*]
Short-toed Eagle.
- S. Europe
N. to France,
Germany,
C. Russia ;
N.E. Africa,
C. Asia to
N. China ;
India.*

Size similar ; wing ♀ 22.25–22.50 in. ; above brownish black ; secondaries and wing-coverts barred with ashy grey ; upper tail-coverts tipped and barred with white ; tail ashy brown with 4 blackish bands ; chest blackish ; throat white, streaked with blackish ; below white ; juv. tawny below.

210. *Circaëtus pectoralis* Smith, S. Afr. Q.J., Ser. 1, 1830, p. 109. [*S. Africa.*]
Black-breasted Snake-Eagle.
- S. Africa to
to E. Tropical
Africa.

Size nearly the same ; wing ♀ 22 in. ; bill much deeper, upper mandible from ridge to gonys, measured through anterior edge of nostril, 23 mm. as against 19 mm. in *C. pectoralis* ; tarsi also much stouter ; whole under parts uniform blackish brown ; immature brown below with white markings, not white with brown markings as in *C. pectoralis*.

211. *Circaëtus cinereus* Vieill., N.D., xxiii., p. 445 (1818). [*Senegal, type in Paris Mus.*]
Black-bellied Snake-Eagle.
- E. & W.
Tropical
Africa to
S. Africa.

* *C. hypoleucus* (Pall.) must be regarded as a synonym. Apart from the fact that it was described from S. Russia, the white-bellied birds do not constitute a form. Examples from India and Africa with the white under parts are counterbalanced by examples from the same regions as dark below as typical birds. The white-bellied birds are evidently younger examples.

- Size similar ; length ♀ 32 in. ; wing 20.5 in. ; above paler ; throat and chest ashy brown, the throat varied with white bases to the feathers ; below white broadly banded with ashy brown.
212. *Circaëtus beaudouinii* Verr. et Des Murs, Ibis, 1862, p. 212. [*Bissao, Portug. Guinea*, types in Norw. & Brit. Mus.] Portuguese Guinea ; Beaudouin's Snake-Eagle. Senegambia.
- Smaller ; length ad. 25 in. ; wing 14.6 in. ; above blackish, browner on head, with pale whitish margins to all the feathers, including the wing quills, which are barred with blackish, the secondaries also with a broad subterminal band ; tail ashy brown, tipped with white, and with 4 black bands ; throat and chest fulvous brown ; below white, barred with dark brown.
213. *Circaëtus fasciolatus* Gray, Cat. Acciptr. B.M., p. 18 (1848) (*nom. nud.*) ; Gurney, Ibis, 1861, p. 130. [*Natal.*] Natal. Banded Snake-Eagle.
- Size similar, wing ♀ 16.1, ♂ 15 in. ; above grey ; tail whitish, shaded and tipped with pale brown, and with broad blackish subterminal band and 2 narrower bands near base ; below ashy brown, shaded with grey, the abdomen and thighs barred with white.
214. *Circaëtus cinerascens* Mull., Naum. 1851, heft iv., p. 27. [*Sennar, Egypt. Sudan.*] Tropical Africa, Cinereous Snake-Eagle. E. to W.
- Length 25.60 ; wing 16.20 ; tail 9.90 ; throat and chest with black shaft stripes. [Not seen.]
215. *Circaëtus rufulus* Reichenow, Orn. M.B., xiii., pp. 179-80 (1905). [*Songea, German E. Afr.*] "German" E. Africa.

Gen. LVII. PITHECOPHAGA Ogilvie Grant (1896).

Bill very deep and much compressed, ridge of culmen much curved ; nostrils a vertical slit ; lores and cheeks covered with bristles only ; head with a crest of long lanceolate feathers ; feet very powerful ; tarsi mostly naked, with a row of large scutes down front ; wings short and rounded ; tail very long.

Length 33 in. ; wing 20.5 ; tail 15 in. ; above rich brown, with paler margins to the feathers, especially on head, where they are whitish buff ; tail dark brown with about 4 darker bands ; below creamy white, the thighs and flank feathers with reddish brown shaft stripes.

216. *Pithecophaga jefferyi* Ogilvie Grant, Bull. Philippine B.O.C., vi., p. xvii. (Dec. 30, 1896) ; *id.*, Ibis, 1897, p. 214, pl. v. [*Samar, Philipp. Is.*] Philippine Islands.
Philippine Monkey-Eagle.

Gen. LVIII. SPILORNIS Gray (1840).

Crest feathers of head rounded, not lanceolate ; face bare with only a few short bristles.

Length ♀ (Himalayas) 30 ; wing 19.50–21 in. ; ♂ (Simla, N.W. Himalayas) length 27.50, wing 20.1 in. ; wings reaching beyond median pale band on tail ; above purplish brown ; head and crest black with white bases ; wing-coverts with small spots of white ; secondaries broadly and upper tail-coverts narrowly tipped with white ; tail black with a very broad median band of brownish white ; throat, hind cheeks and ear-coverts blackish brown ; below pale ochraceous brown ; chest with transverse vermiculations of dark brown ; breast and belly with spots of white (bordered with dark brown), becoming bars on thighs and under tail-coverts ; under wing-coverts pale rufous ; outer primaries white below with terminal black band about 4 in. wide and one median blackish band, also slight remains of a second band near base.

217. *Spilornis cheela cheela* (Lath.), Ind. Orn., i., p. 14 (1790). [*“India”* = Lucknow, *apud* W. L. Selat.] Himalayas (Kashmir to Nepal) ; in winter to N. India.
Crested Serpent-Eagle.

Smaller, tarsi more slender and feet smaller ; wing ♂ (S. India) 16 in. ; (Centr. Prov.) 17.25 in. ; (Assam) 17–17.50 in. ; wing ♀ (Assam) 17 in., (Centr. Prov.) 18.25–18.75 in. ; above darker ; throat less blackish, much browner, but with blackish shaft stripes ; much darker

below ; chest darker and warmer brown, uniform in oldest birds * ; white spots below similar ; tail more often with median pale band nearer apical end and narrower, with remains of a second basal one, the terminal black band about 2 in. wide ; primaries below usually showing 2 distinct black median bands ; the terminal one narrower and often broken ; under wing-coverts rufous brown spotted with white, the greater ones ashy.

- 217a. *Spilornis cheela albidus* (Temm.), Pl. Col., i., pl. 19 (1824). [Ex Cuv., Pondicherry, type in Paris Mus.]
Lesser Serpent-Eagle.

E., C. & S.
India, from
Assam to
Travancore.

Slightly smaller, and wings shorter ; wing ♂ 14.60–14.75 in. ; throat and cheeks and ear-coverts ashy brown ; tail as in *S. c. albidus* ; chest and upper breast always uniform darker brown in adults ; primaries below with only one blackish median band.

- 217b. *Spilornis cheela spilogaster* Blyth, Jnl. As. Soc. Beng., xxi., p. 351 (1852). [*Ceylon.*]
Ceylon Serpent-Eagle.

Ceylon.

Wing ♂ 17–18 in. ; ♀ 17.25–18.25 in. †
larger and much paler above and below ; with the hind cheeks and ear-coverts ashy ; throat as pale as chest, but tinged with ashy and, like chest, finely vermiculated ; white

* Vermiculated in less old birds, which are much lighter below ; in considering this difficult group it should always be remembered that these birds certainly darken with age. Temminck described *albidus* from a quite juvenile bird, buffish white below with streaks and spots of dark brown. The dark uniform chest is a sign of age like the single pale tail band, but the typical *S. c. cheela* is a pale race and does not usually acquire the uniform chest ; although it always gets the single tail band. As we get away from the typical race these characters vary, *albidus* generally getting the uniform chest, but not often being found with the purely black tail and single band. The northern forms are the largest and the southern smallest and more variable in the characters mentioned ; also often, but not always, the darkest. The moult is from the pale juvenile plumage straight into the brown under parts with vermiculated chest and white spotted under parts, although the brown comes out in the form of bars towards the vent gradually dividing the white interspaces first into partial bars and then rounding them off into spots. The vermiculations in some forms are lost later as the chest darkens and becomes uniform.

† Measurement of a skin from Shan States in coll. Brit. Mus. Burmese birds vary considerably in size, but it is impossible to place these large birds with *S. c. rutherfordi* from Hainan, especially as the throat is different.

spots below rounded and less distinct, the darker margins much paler; primaries below as in *S. c. cheela*, but black terminal band not more than 3 in. wide; under wing-coverts rufous with white spots, the outer edge white.

- 217c. *Spilornis cheela burmanicus* subsp. nov. [♂ *Jobin, Thayetmyo, Burma*, Mar. 5, 1905, in coll. H. K. Swann, and examples in coll. Br. Mus.]
Burmese Serpent-Eagle.

Burma, N. to Upper Burma and Shan States, S. to Tavoy, at least, in Tenasserim.

Smaller; wing (ex. from Hainan, Tring Mus.) ♀ 16-17 in., ♂ 15.50-16.25 in.; throat slaty brown to dusky.

- 217d. *Spilornis cheela rutherfordi* Swinh., *Ibis*, 1870, p. 85. [*Central Hainan.*]
Hainan Serpent-Eagle.

Hainan I.; Indo China?

Wing (ad. unsexed) 16.25-16.75; much paler above and below; wings strongly shaded with grey; sides of head slate grey; throat uniform with chest, which is pale ashy brown, slightly vermiculated; *chest also sparingly spotted with white* like the lower parts; tail brownish black, with brownish white median band and remains of a basal one; primaries with one black median band below, besides terminal one; under wing-coverts rufous, with white spots, outer edges white.

- 217e. *Spilornis cheela floweri*, subsp. nov. [ad. unsexed, *Tahkaman*, Mar. 19, 1897, and *Chantaboon*, July 1896, S. S. Flower, B.M. coll., Nos. 97.9.1.1 and 97.9.1.2.]
Siamese Serpent-Eagle.

Siam.

"Resembling *S. c. cheela*, but with upper parts somewhat paler ashy brown, with a purplish gloss, below dusty ashy; transverse banding on breast indistinct, often not noticeable; throat never black, but like the breast, cheeks and ear-coverts grey, not black; slightly smaller wings" [18-19.25 in.].

- 217f. *Spilornis cheela ricketti* W. Sclat., *Bull. B.O.C.*, xl., p. 37 (1919). [♂ *Yamakan, Fokien Prov.*, type in B.M. coll.]
Chinese Serpent-Eagle.

S. China to Upper Burma (Chindwin dist.)

Nearly as large as *S. cheela cheela*; length ♂ 27 in.; wing 18.5–19 in., tail 13 in.; darker above and below; tail with the central pale band narrower; throat and ear-coverts blackish brown; chest nearly uniform brown, but showing vermiculations in some (less old) birds; below darker and more cinnamon brown; wing-coverts darker and browner; primaries below with black areas much increased and little white.

- 217g. *Spilornis cheela hoya* Swinhoe, Ibis, 1866, Formosa.
p. 304. [*Formosa*.]
Formosan Serpent-Eagle.

49.3-381
Smaller; wings reaching to middle of pale tail band; wing (Brit. Mus. ex.) ♂ 13.75–15 in. (northern largest) ♀ 14.50–15 in.; ♀ (type Pahang) 14.60 in.; above dark brown; wing-coverts sparingly marked with minute spots of white; secondaries not visibly tipped with white; tail with median brownish white band about 2 in. wide and irregular narrow basal one [in oldest birds base only brownish], the 2 black bands about 1.50 in. wide; throat and cheeks and ear-coverts slate brown*; below darker, browner and duller than *S. c. rutherfordi*; fore neck and chest nearly uniform with only slight traces of vermiculations; white spots on breast and abdomen broader, larger and more regular, in the form of remains of transverse bars; under wing-covert rufous brown, with very large spots of white, edge of wing white; primaries below with the median black markings concentric on inner webs instead of forming bands, the terminal black and subterminal white bands about 2.25 in. wide.

* Malacca birds usually have the subterminal tail band whiter, throat and hind cheeks greyer, and are lighter below: chest fulvous to brown, either uniform or slightly vermiculated (less old birds). Although examples from various parts of the Malayan peninsula vary I think it best to make one race for the whole peninsula, and I have united with it the Sumatran birds which occur not only in the lighter plumage described, but in a much darker plumage, approaching the Javan form (*S. c. bido*), although a trifle smaller and with the throat paler and greyer; the tail, under wing-coverts and under surface of primaries are similar to those of *S. c. bido* however. Had it not been for the occurrence of this dark race in Perak and of the lighter Malay race in Sumatra it would be necessary to separate the Sumatran form.

- 217h. *Spilornis cheela malayensis** subsp. nov. [♀ Malay Peninsula ;
Raub, Pahang, "alt. 400" ; June 28, 1903, W. H. Craddock, in coll. H. K. Swann] Sumatra.
[=*S. bacha* ; auct. plur.]
Malayan Serpent-Eagle.

Slightly larger ; wing ♀ 15.50 ; darker generally (clove brown) ; wing-coverts heavily spotted with white, secondaries scarcely tipped ; tail black with one broad pale median band, the base dark brown ; throat, cheeks and ear-coverts blackish ; chest uniform clove brown, without vermiculations ; under wing-coverts usually blackish slate with white spots ; white spots below irregular and only forming bars on under tail-coverts ; primaries below with 2 black bands besides terminal one, coalescing on inner primaries, the white areas much reduced.

- 217i. *Spilornis cheela bido* Horsf., Tr. Linn. Soc., Java
xiii., p. 137 (1822). [*Java*, type in Br. Mus.]
Javan Serpent-Eagle.

"Resembling *S. c. bido* of Java, but with more white on underside of wing quills and the black not so well defined ; a rich umber brown nape band formed by tips of black crest feathers on lower edge of crest, having conspicuous tips of that colour ; tail band broader and purer white, not merely pale brown as in *S. c. bido* ; throat quite black."

- 217k. *Spilornis cheela kinabaluensis* W. Scat., Bull. Borneo (Mts. Kinabalu & Dulit).
B.O.C., xl., p. 37 (1919). [*Mt. Kinabalu*, type in B.M.]

Smaller ; length ♂ 21 in. ; wing 14 in. ; much paler brown above, especially on wing-coverts, but bastard wing conspicuously black ; head and crest jet black ; tail black, with median band brownish white ; upper wing-coverts with spots of white ; under wing-coverts rufous spotted with white ; cheeks, ear-coverts, chin and throat grey ; chest uniform

* The name *bacha* cannot stand for Malayan birds. It was described from Le Vaillant who claimed it as a S. African bird erroneously and it is now impossible to say to what race it properly applies. Gurney thought Le Vaillant's plate more like the Malaccan bird, but considered the name would be best discarded (*Ibis*, 1878, p. 100). In any case it is predated by *bassus* Forster (1798), an equally doubtful name.

brown; primaries below with the white subterminal band about 3 in. wide; below tawny with white spots.

- 217l. *Spilornis cheela pallidus* Walden, Ibis, 1872, p. 363. [Sarawak.]
Bornean Serpent-Eagle. Borneo (low country, Sarawak to Sandakan).

Smaller and much paler (especially on wing-coverts) than *S. c. pallidus*; tail shorter and light band narrower; wing (Nias I.) ad. 11.6-12 in.; tail 7.5 in.; (Bunguran I.) wing ♀ 12 in.; chest uniform (pale ashy brown in Bunguran I. birds and throat grey); head and bands on wings and tail black not brownish as in *S. c. minimus*.

- 217m. *Spilornis cheela salvadorii* Berl., Nov. Zool., ii., p. 73 (1895). [*Nias Is.*, co-type in Tring Mus.]
Salvadori's Serpent-Eagle. Nias I. (W. Sumatra); Bunguran I., (N.W. of Borneo).*

Larger; wing ♂ 14.25 in.; similar to last form, but very pale below; much paler than *S. c. pallidus* of Borneo.

- 217n. *Spilornis cheela* subsp. ? [♂♂ *Triomate*, *Yayeyema*, *S. Loo Choo Is.*, June 16 and 19, in coll. Tring Mus.] [= *S. pallidus* Ogawa, Annot. Zool. Japon., v. 4, p. 213, 1905.]
Loo Choo Is., S. of Japan.

Very small and pale form compared with *S. cheela cheela*, wing ♂ 11.50; ♀ 11.75; head and crest (shorter) blackish brown instead of black; tail with the terminal and median bands dusky brown instead of black, the subterminal and basal bands light brown; throat and chest pale fulvous brown without vermiculations; bands on primaries below as well as tips dusky brown instead of black.

- 217o. *Spilornis cheela minimus* Hume, Stray Feath., i., p. 464 (1875). [*Kamorta*, *Nicobar Is.*, type in Br. Mus.]
Nicobar Serpent-Eagle. Nicobar Islands (Kamorta, Trinkut, Katchal, Little Nicobar).

* I have united the Bunguran I. birds (Tring Mus.) with *salvadorii* as they agree so well in size, although a little paler, and are certainly not *pallidus*. There is no connecting link between these and the Nias I. birds, however.

Larger ; wing ♀ 15.25–16.25 in. ; throat ashy ; chest pale ashy brown finely vermiculated ; below tawny, the white spots rounded, becoming bars on thighs ; tail with the pale band, but a distinct basal one brown.

- 217p. *Spilornis cheela davisoni* Hume, Stray Feath., *Andaman Islands*, i., p. 307 (1873). [*S. Andaman I.*, type in Br. Mus.]
Andaman Serpent-Eagle.

“Perhaps closest to the Andaman race (*S. c. davisoni*) but distinguished by the richness of its colouring and its breast being marked with narrow transverse bands of dusky and rufous brown—these bands often extending on to the throat” ; wing av. 15.40 in.

- 217q. *Spilornis cheela palawanensis* W. Selat., Bull. B.O.C., xl., p. 38 (1919). [♀ *Palawan*, type in B.M.] *Palawan I.*

Smaller ; length ♂ 19.75–21.50 ; wing 13–14.25 in. ; ♀ length 19.50–22.10 in. ; wing 12.50–14.20 in. ; bend of wing mottled instead of uniform white or yellowish white ; tibial plumes spotted instead of barred. [Doubtful form ; not seen, and characters given quite insufficient ; probably identical with Sumatran bird.]

- 217r. *Spilornis cheela abboti* Riehm., Pr. U.S.N. Mus., xxvi., pp. 492–3 (1903). [*Simalur I.*] *Simalur Island, W. Sumatra.*

Length ad. 22.5 ; wing 15.6 in. ; very dark form ; above and below dark clove brown ; wing-coverts and wings with minute white spots ; tail with subterminal band brown and narrow ; the basal one brown but indistinct ; the terminal and median bands black ; below with white spots distinct, rounded, and continued up to throat.

218. *Spilornis elgini** Tytler, J. As. Soc. Beng., xxxii., p. 87 (1863). [*S. Andaman I.*] *Andaman Is. Nicobar Is.*
Elgin's Serpent-Eagle.

* The occurrence of this bird along with a form of *s. cheela cheela* proves it to be a good species, apart from its very distinctive coloration and markings.

Length ♂ 17.6, wing 13.3 in. ; head black ; above purplish brown, upper tail-coverts tipped with white ; wing quills with broad subterminal band of purplish brown and banded with dark brown below ; tail tipped with white and with broad blackish subterminal band and 2 less distinct ones nearer base ; face and throat bluish ash ; chest uniform dull rufous ; below rufous brown with large spots and bars of white.

219. *Spilornis rufipectus rufipectus* Gould, P.Z.S., 1857, p. 222. [*Macassar*, type in Brit. Mus.] Celebes.
Celebes Serpent-Eagle.

Length, nearly ad., 18.5 ; wing 12.2 in. ; more closely banded and spotted below.

- 219a. *Spilornis rufipectus raja* Sharpe, Bull. B.O.C., i., p. lv. (1893). [*Kuching*, type in Brit. Mus.] Borneo (Sarawak).
Bornean Serpent-Eagle.

Length ♀ 18, wing 12.1 in. ; ♂ length 17 in. ; wing 12.2 in. ; rufous of chest paler.

- 219b. *Spilornis rufipectus sulaensis* Schl., Vög. Ned. Valkvög., p. 38, pl. 23 ; figs. 4-6 (1866). [*Sula Is.*, type in Leyd. Mus.] Sula Islands.
Sula Serpent-Eagle.

Larger ; wing ♀ 13.50-14.5 in. ; above pale brown, with a purplish gloss, the feathers irregularly spotted with white at tips ; interscapular region with pale rufous tips and large rounded white spots ; head and crest ashy black, spotted with white, and with rufous margins ; tail with broad median and subterminal blackish bands ; face and throat ashy grey ; rest of under parts pale fawny rufous, ocellated with spots and half bars of white.

220. *Spilornis holospilus holospilus* Vigors, P.Z.S., 1831, p. 96. [Near *Manila*.] Philippine Is. (Luzon, Cebu, Mindanao, Basilan.)
Philippine Serpent-Eagle.

Wing ♀ 12.50 ; very much paler, especially below, without the rufous shade on breast and belly.

- 220a. *Spilornis holospilus panayensis* Steere, List Philippine Birds, etc., Philipp., p. 7 (1890). [*Panay, Philipp. Is.*, type in Br. Mus.] Is. (Panay Guimares, Negros.)
Steere's Serpent-Eagle.

Length ♂ 17.10 in. ; wing 10.15 in. ; tail 6.50 in. ; above drab colour, with a slight coppery sheen ; ear-coverts and cheeks grey ; some of wing-feathers with narrow white tips and top of head and occipital feathers black ; tail with 2 light bars ; throat white with grey median stripe ; breast buffy wood brown, becoming much paler on abdomen ; unspotted. [Not seen.]*

221. *Spilornis klossi* Richm., Pr. U.S.N. Mus., Great xxv., pp. 304-5 (1902). [*Gt. Nicobar I.*] Nicobar Island.
Kloss's Serpent-Eagle.

Gen. LIX. KAUPIFALCO Bp. (1854).

[= *Asturina*, auct. plur.]

Size small ; head not crested ; nostrils circular ; tarsi unfeathered, transversely plated in front.

Length ♀ 13.5 ; wing 9.5 in. ; ♂ length 12, wing 8.9 in. ; above slate grey, lighter on head ; primaries blackish, tipped with white ; rump black ; lower upper tail-coverts white ; tail black, tipped with white and with a median band of white ; throat white with central stripe of blackish ; chest ashy grey ; below white, finely barred with ashy brown.

222. *Kaupifalco monogrammicus monogrammicus* (Temm.), Pl. Col., i., pl. 314 (1824). [*Senegal.*] Tropical Western, Central & E. Africa.
One-lined Hawk.

Smaller ; wing ♀ 8.50 ; bands below much broader and darker, especially on the thigh feathers ; white band on tail much narrower ; white of throat more extensive and dark throat stripe narrower.

* From the measurements, pale coloration, and locality this might be assumed to be an immature example of *s. c. minimus*. One other form of *Spilornis*, *S. asturinus* Meyer (S. B. Ges., Isis, Dresden, p. 13, 1884, *Patr. ign.*) I do not know the relations or distribution of, and so cannot place.

- 222a. *Kaupifalco monogrammicus meridionalis* Hartl., P.Z.S., 1860, p. 109. [*Ambriz, Angola*, type in Br. Mus.]
Southern One-lined Hawk. S. Africa, Damaraland to Angola on W. and to Nyasaland.

Gen. LX. BUTASTUR Hodgs. (1843).

[Head not crested], nostrils oval, with a superior membrane.

Length ♀ 18.5 ; wing 12.2 in. ; ♂ length 16 ; wing 11.7 in. ; above pale rufous brown (with darker shaft-stripes), darker on head ; nape mostly white ; wing-coverts paler and varied with white ; tail tipped with buffy white, and with 6 or 7 nearly obsolete blackish bars, the subterminal broadest ; throat yellowish white, with a line of black each side and down centre ; breast pale rufous brown with yellowish white bars ; abdomen nearly uniform buffy white.

223. *Butastur teesa* (Frankl.), P.Z.S., 1831, pt. 1, p. 115 (1832). [*India, between Ganges and Nerbudda.*]
White-eyed Buzzard-Hawk. Buluchistan, Kashmir, Indian Peninsula, Burmese Provinces.

Size almost similar ; above brownish ashy ; clearer on head, hind neck and wing-coverts ; quills rufous, externally ashy grey, barred with dark brown ; tail rufous with 6 blackish bars ; below ashy, with blackish shaft-stripes and a few whitish bars on flanks.

224. *Butastur liventer* (Temm.), Pl. Col., i., pl. 438 (1827). [*Java, type in L yd. Mus.*]
Ashy Buzzard-Hawk. Indo-Chinese Provinces, Greater Sunda Is., Celebes.

Larger ; wing ♀ 13.6 ; ♂ 13.1 in. ; above rufous brown, more ashy on head and mantle, and rufous on wings, rump and upper tail-coverts, which latter are barred and tipped with white ; tail with 4 bands of blackish brown ; forehead and throat white, latter with mesial brown stripe ; feathers of hind neck

with white bases ; below barred with white and rufous brown.

225. *Butastur indicus* (Gmel.), S.N., i., p. 264 (1788). [ex Lath.—*Java*.]
Eastern Buzzard-Hawk.
- Ussuri-land,
Japan and
E. China ; in
winter to S.
China, Malay
Peninsula,
Philippine
Is., Celebes,
Borneo, etc.

Length ad. 16.5 ; wing 12.3 in. ; above cinereous brown with black shaft-stripes, and rufous margins to the feathers ; head and neck darker ; least wing-coverts and quills rufous ; tail with 3 or 4 blackish bands, except on centre feathers ; throat creamy buff ; below pale rufous, with narrow shaft streaks.

226. *Butastur rufipennis* (Sund.), Öfv. Vet. Akad. Förh. Stockh., 1850, p. 131 (1851). [*near Khartoum*, type in Stockh. Mus.]
African Buzzard-Hawk.
- N.E. Africa,
(Egypt,
Sudan,
Abyssinia,
Br. E. Africa,
" German "
E. Africa).

Gen. LXI. TERATHOPIUS Less. (Traité, livr. i., Febr., 1830).

[= Helotarsus, auct. plur.]

Head with a crest of rounded feathers ; tail extremely short ; wings exceeding tip of tail by more than length of tarsus.

Length ♀ 25, wing 21.5, tail 5 in., ♂ length 21, wing 21.2, tail 4.5 in. ; head and under parts glossy black ; hind neck, mantle and tail rich maroon chestnut, lower back paler ; scapulars and quills black ; wing-coverts pale bronze brown, whitish on shoulder ; under wing-coverts white ; axillaries black ; bill black, feet coral red.

227. *Terathopius ecaudatus* Daud., Traité, ii., p. 54 (1800). [*Anteniquoi country, S. Africa*.]
Bataleur Eagle.
[*T. leuconotus* (Rüpp.) is a synonym.]
- Africa (Cape Colony to Egyptian Sudan and E. Africa ; Senegal).

Gen. LXII. HALIÆTUS Savigny (1809).

Size of, and with general characters of *Aquila*, but tarsus not feathered more than half way down; the front scutellated, sides and back reticulated; no membrane between the toes; head not crested, but feathers of neck long and lanceolate.

Length ♀ 36-38; wing 26 in., ♂ length 33, wing 24 in.; general plumage brown, with paler greyish margins to many of the feathers above; head and neck much paler, nearly white in very old birds, with ashy brown streaks; quills black, shaded with grey externally; longer upper tail-coverts and tail pure white; bill and feet yellow. Immature: head and neck blackish brown; general plumage fulvous brown, mottled with dark brown; tail brown.

228. *Haliæetus albicilla* (Linn.), S.N., i., p. 89 (1758). ["*Europa, America*"—latter. errore—type loc. *Sweden* sugg. Hartert.]
White-tailed Eagle.
- Europe, S. to Mediterranean on E. side; Iceland, Greenland;* Asia Minor, N. and E. Asia†; in winter S. to India.

Size similar; wing 23-25 in.; head and neck all round, rump, upper tail-coverts and tail pure white. Immature; head and neck black and tail mingled white and black at first.

229. *Haliæetus leucocephalus leucocephalus* (Linn.), S.N., ed. xii., i., p. 124 (1766). [ex Catesby—*Carolina*.]
Bald Eagle.
- United States, S. to Lower California & N. Mexico.

* The Greenland form may be separable, cf. Hartert, Vög. Pal. Fauna p. 1178 (1914) but material is lacking.

† Bishop records it from Alaska and Brit. Columbia; cf. Biol. Surv. U.S. Dept. Agric., xix., pp. 73-74 (1900); Auk, xxii., pp. 79-80 (1906).

- Rather larger ; wing ♀ 25.50 ; ♂ 25 in.
- 229a. *Haliaeetus leucocephalus alascanus* C. H. Townsend, Proc. Biol. Soc. Wash., xi., p. 145 (1897). [Unalaska, type in U.S. Nat. Mus.] Alaskan Bald Eagle. N.W. Alaska, Bering I., N.W. Mackenzie & N. Ungava, S. to Brit. Columbia & Gt. Lakes.
- Length ad. 41, wing 24.4 in. ; tail with 14 feathers ; general plumage brown, with ashy streaks to head, neck and under parts, and whitish tips to feathers of upper parts ; wing-coverts, rump, upper and under tail-coverts, tail and thighs white ; immature has these latter parts only mottled with white.
230. *Haliaeetus pelagicus pelagicus* (Pall.), Zoogr. Rosso-Asiat., i., p. 343 (1827). [Islands between Kamtschatka and America : Bering Is.] Steller's Sea-Eagle. N.E. Siberia, Kamtschatka, Sakhalin ; in winter S. to Japan.
- Wing ♂ 21.62 ; differs from *H. pelagicus* in the great height of its bill and also in having only the tail and upper and under tail-coverts pure white ; rest of plumage blackish brown, the feathers on crown and neck with a fine central greyish line ; bill and feet orange-yellow.
- 230a. *Haliaeetus pelagicus niger* Heude, Naturaliste, 1887, p. 95. [Korea.] [= *H. branickii*, Tacz.] Black Sea-Eagle. Korea, Ussuri.
- Wing ♂ 24.4 in. ; tail much longer (14.4 in.) and regularly graduated ; 5 primaries sharply emarginated, but distance between tips of innermost secondaries and primaries large, 5.5 in. as against 2.5 in. in *H. p. niger*.
- 230b. *Haliaeetus pelagicus macrurus* (Menzb.), Bull. B.O.C., xi., p. 4 (1900). [Yakutsk, E. Siberia.] Long-tailed Sea-Eagle. Siberia.
- Smaller ; length ♀ 28 ; wing 23.2 in., ♂ wing 22.3 in. ; entire under parts, as well as head and neck, white ; above ashy grey, shaded with brownish ; primaries blackish ; tail black for basal two-thirds, terminal third white. Immature : whole plumage brown

with whitish shaft-streaks; quills and tail barred with darker brown.

231. *Haliaeetus leucogaster* (Gmel.), S.N., i., p. 257 (1788). [ex Lath.—type loc. sugg. *N.S. Wales*, Math.*]
White-bellied Sea-Eagle. Indian Peninsula, Indo-Chinese Provinces, S.E. China, Malay Pen. & Archipel., Australia, Oceania.
- Larger; length ♀ 33, wing 24.4 in.; ♂ length 30, wing 22.2 in.; above dark brown, more tawny on hind neck and sandy on head; rump purplish brown; tail white, with base and broad terminal band black; face and throat buffish white; below fulvous brown, with pale centres to chest feathers.
232. *Haliaeetus leucoryphus* (Pall.), Reise d. Russ. Reichs., i., p. 454 (1771). [“*Iaikum in Australioribus*” = *Lower Ural River*, apud W. L. Selat.]
Pallas’s Sea-Eagle. S.E. Russia, Asia Minor, Caspian, & Central Asia to Mongolia; India, Burma.
- Smaller; length ♀ 25; wing 20.5 in.; ♂ length 22; wing 19.2 in.; head, neck, breast, interseapular region and tail pure white; least wing-coverts rufous; primaries black; rest of upper surface blackish brown, and of lower surface deep chestnut.
233. *Haliaeetus vocifer* (Daud.), *Traité*, ii., p. 65 (1800). [ex Levaill.—*Keurboom R., Cape Col.*]
Vociferous Sea-Eagle. Tropical Africa, S. to Cape Colony.
- Size similar; general plumage blackish brown; tail buffy white; feathers of head, hind neck and throat with buffy margins; cheeks and sides of neck white; chest and under parts like upper parts, but with rufous stripes on chest.
234. *Haliaeetus vociferoides* Des Murs, *Rev. Zool.*, 1845, p. 175. [*Madagascar*, type in B.M.]
Madagascar Sea-Eagle. Madagascar.

* No locality given by Latham, but stated to have been brought in “one of the last circumnavigating ships.”

Gen. LXIII. GYPOHIERAX Rüpp. (1855).

Space above and around eye bare, as well as a line on either side of throat ; front of tarsus reticulated ; claws with a groove below as in *Haliaeetus* ; head slightly crested.

Length ♂ 23 in. ; wing 17.2 in. ; general plumage white ; scapulars and secondaries black ; primaries white with the tips black and outer webs mottled with black ; tail black with broad terminal band of white ; bare skin of face and feet flesh colour ; cere bluish grey.

235. *Gypohierax angolensis* (Gmel.), S.N., i., p. 252 (1788). [*Angola.*] Tropical W. Africa, Angola to Senegambia ; E. Africa.
Angola Vulture.

Gen. LXIV. HALIASTUR Selby (1840).

Nostrils circular, with bony margin all round ; presents affinities both with *Aquilinae* and *Milvinae*.

Length ad. 20, wing 15–15.50 in. reaching beyond end of tail* ; tail 7.50–8 in. ; head, neck, throat and breast white with distinct blackish brown shaft-stripes, narrowest and blackest in old birds ; rest of plumage maroon chestnut, paler on tail, which is whitish at tip ; primaries brownish black ; bill yellowish, the base blackish ; feet light greenish yellow.

236. *Haliastur indus indus* (Bodd.). Tabl. Pl. Indian Peninsula, Ceylon, Burmese Provinces ; S. China.
Enlum., p. 25 (1783). [ex Buff.—*Pondicherry.*] Brahminy Kite.

Wing ♀ 16 in. ; reaching nearly 2 in. beyond end of tail ; tail 8.50 in. ; the black shaft-streaks on head, hind neck and breast reduced to hair-lines and much less distinct.

* Ceylon birds seem to have as a rule slightly shorter wings and longer tail than Indian birds, and to have the wings as a rule falling well short of end of tail.

- 236a. *Haliastur indus intermedius* Gurney, Ibis, Indo-Chinese
1865, p. 28. [*Java*.] Provinces,
Malay Brahminy Kite. Malay Pen.,
Java,
Sumatra,
Borneo,
Philippine
Is., Celebes :
Babber I.

Size similar ; wing ♂ 14.2 ; ♀ 15.3 in. ; head, neck, interscapular region and throat and breast snowy white without any sign of black streaks ; rest of plumage bright maroon ; tail with a broad terminal bar of white ; cere and bill pale yellow, latter darker at tip and bluish at base ; feet whitish yellow.

- 236b. *Haliastur indus leucosternus* (Gould), P.Z.S., Australia,
1837, p. 138. [Australia=*Moreton Bay*, New Guinea,
Queensl., *apud* Math., type in Philad. Acad.] Moluccas,
White-headed "Sea-Eagle." Tenimber,
[=*H. i. girrenera* (Vieill. et Oud.)] Ceram,
Aru Is.

Rather larger, length ad. 22 ; wing 16.6 in. ; above ashy brown, more rufous on head and darker and more chocolate on scapulars and wing-coverts ; primaries brownish black ; tail greyish-brown, paler at tip, and at base of outer feathers ; throat fulvous ; breast dull ochraceous, the feathers bordered with brown and streaked with white ; flanks with black shaft-streaks ; cere and bill greyish ; feet bluish white.

237. *Haliastur sphenurus sphenurus* (Vieill.), N. Australia.
Dict. d'Hist. Nat., xx., p. 564 (1818).
["*Australia*" = *N.S. Wales*, *apud* Math., type
in Paris Mus.]
Whistling Eagle.

"Lighter and smaller" (Math.) ; "of a much lighter colour, especially on the upper portion of the head, neck and scapulars" (North).

- 237a. *Haliastur sphenurus sarasini* Math., Bds. New
Austral., v., p. 169 (1916). [*New Caledonia*.] Caledonia.
New Caledonian Whistling Eagle.

Sub-Fam. VI. MILVINÆ.

Head usually closely feathered ; loreal bristles scanty or wanting ; cere contracted ; nostrils oval,

oblique, generally closed in with a superior membrane; bill usually rather weak, straight at base, curved from cere to point, the cutting edge at most slightly festooned, but in two or three genera either toothed or serrated; wings usually long, more or less pointed; tail variable; feet small and weak; tarsi feathered for a variable distance.

Gen. LXV. ELANOIDES Vicill. (1818).

Tail very long and deeply forked, outer feather much the longest; wings very long and pointed, but not reaching beyond next outermost pair of tail-feathers.

Head, neck all round, rump and entire under parts snowy white; back, wings and tail glossy black with purplish and green reflections, the former especially on the scapulars and wings; secondaries white on inner webs, except at tips.

238. *Elanoides forficatus forficatus* (Linn.), S.N., i., p. 89 (1758). [“*America*,” ex Catesby = *Carolina*.] Swallow-tailed Kite. N. America, (breeds in S. United States, but winters S. of them); Mexico.

Wing ♂ (Venez.) 16.60; outer tail-feathers 12.75 in. “Differs from N. American specimens in having [reflections on] the scapulars and to a lesser extent interscapulars rich bottle green instead of dark purplish maroon” (Chapman). [Doubtfully distinct.]

- 238a. *Elanoides forficatus yetapa* Bonn. et Vieill., Ency. Meth., iii., p. 1205 (1823). [*Paraguay*.] Southern Swallow-tailed Kite. C. America (Costa Rica) S. to Peru, Bolivia & Paraguay.

Gen. LXVI. NAUCLERUS Vig. (1825).

Tail much shorter; wings long, but not greatly exceeding length of tail.

Length 14.5 ; wing 9.95 ; tail 7.8 in. ; above cinereous, darker on intercapillary region ; wing and tail quills ashy grey, the secondaries white at tips ; forehead and indistinct eye-brow whitish ; cheeks and under parts pure white.

239. *Nauclerus riocouri* (Vieill. et Oud.), Gal. Ois., i., p. 43, pl. 16 (1823). [*Senegal*, type in Br. Mus.] N.E. Africa ; W. Africa (Senegambia to Hausaland).
Cinereous Kite.

Gen. LXVII. MILVUS Lacep. (1799).

Tail forked, but difference between longest and shortest feather less than difference between tips of primaries and tips of secondaries.

Length ad. about 24 in., wing 19–20.75 ; tail 14–15 in. ; plumage above brown with rufous margins, the wing-coverts paler ; primaries black ; rump dark brown ; upper tail-coverts rufous ; tail rufous, tipped with fulvous, the outer feathers partly barred with dark brown on inner webs ; head, face and throat whitish streaked with dark brown ; chest pale rufous, with dark central streaks and paler edges ; below bright rufous, with dark central streaks ; bill horn colour ; cere and feet yellow.

240. *Milvus milvus milvus* (Linn.), S.N., i., p. 89 (1758). [*Europe, Asia, Africa*—type loc. *S. Sweden, apud* Hartert.] Europe, breeding from S. Sweden S. to Spain, also Morocco, Asia Minor, Canary Is ; in Brit. Is. confined to Wales.
Common Kite.

Wing ad. 18.20–19.30 ; tail less forked, depth of fork only about half as great ; all the feathers, including central pair, barred.

- 240a. *Milvus milvus fasciicauda* Hart., Bull. B.O.C., p. 89 (1914). [♂ *Santo Antao*, Cape Verd, in Tring Mus.] Cape Verd Is. (resident).
Cape Verd Kite.

Length ♀ (Caucasus) 24, wing 18.5; tail 10.5 in.; above dark brown; much paler and greyer on head and hind neck and throat, which are much streaked with dark brown; tail with very indistinct darker bars; below dull rufous brown, brighter on abdomen, with blackish shaft-lines; cere orange, bill black, feet yellow.

241. *Milvus migrans migrans** (Bodd.), Tabl. Pl. Enl., p. 28 (1783). [ex Daub., pl. 472, Buffon etc., type loc. *France, apud Hart.*] Black Kite. E., C. & S. Europe, N. to Finland, S. to Mediterranean and N.W. Africa; Asia Minor, C. Asia; in winter to Tropical Africa; cas. Brit. Is.

Size nearly the same; tail more rufous brown, with 7 or 8 more distinct blackish bands; head and hind neck browner; ear-coverts darker; below rather more rufous, especially on abdomen, thighs and under wing- and tail-coverts; bill, as well as cere and feet, bright yellow.

- 241a. *Milvus migrans aegyptius* (Gmel.), S.N., i., p. 261 (1788). [*Egypt.*] Yellow-billed Kite. N. & E. Africa, Palestine, Arabia; cas. in S.E. Europe.

Slightly smaller; wing 17 in.; less rufous, more cinnamon-brown below; bill yellow.

- 241b. *Milvus migrans parasitus* Daud., *Traité*, ii., p. 150 (1800). [Ex Levaill.—*South Africa.*] Parasitic Kite. Africa, S. of Sahara to Cape Colony; Madagascar & Comoro Is.

Length ♂ 20; wing 19 in.; head and hind neck slightly rufescent, with distinct central stripes of black; scapulars and wing-coverts

* Gmelin's name *korschun* (1771) should never have been used for this bird; it does not seem to have been a form of *Milvus* he described at all.

edged with buff; tail distinctly barred with blackish; below dull rufous brown; the breast feathers with pale fulvous stripes next the dark shaft-streaks; vent and under tail-coverts more buffish; cere and feet yellow, bill blackish.

- 241c. *Milvus migrans govinda* Sykes, P.Z.S., 1832, p. 81. [Deccan, type in Brit. Mus.]
Indian Kite.

India;
Ceylon;
Burma;
Russian
Turkestan.

Rather smaller; wing 16.5 in.; above blackish brown, paler on wing-coverts, with blackish shaft-stripes; tail dark brown, with remains of dark bars on centre feathers; head and hind neck pale brown, washed with rufous and with blackish shaft-streaks; below dull rufous brown, more dusky on chest and flanks, with distinct black shaft-streaks; cere and feet yellow, bill blackish.

- 241d. *Milvus migrans affinis* Gould, P.Z.S., 1837, p. 140 (1838). [Australia = New S. Wales, apud Math.]
Allied Kite.

Australia,
Celebes,
Lesser Sunda
Is.

Larger, length ♂ 25.5; wing 21; tail 13.2 in.; above dark chocolate brown; head, hind neck and wing-coverts more rufous and with black shaft-streaks; tail paler brown, more rufous on central feathers and distinctly barred with darker brown; lores, forehead and cheeks white with black shaft-lines; ear-coverts brownish black; below deep rufous brown, clearer on abdomen, with broad black central stripes, especially on chest; cere and feet greenish yellow; bill black.

242. *Milvus lineatus* (Gray) in Hardw., Ill. Ind. Zool., i., p. 1, pl. 18 (1832). [China.] [= *M. melanotis*, auct. plur.]
Black-eared Kite.

Japan, N.
China,
Mongolia, to
Cent. Asia &
Himalayas,
W. to Ural;
in winter S.
to Burma,
N. India &
Hainan.

Gen. LXVIII. LOPHOICTINIA Kaup (1847).

Head crested ; bill moderate, the tip not prolonged ; tail even.

Length 19 ; wing 18 in. ; above blackish brown, wing-coverts paler and slightly rufous with dark centres ; wing quills and tail dark brown, externally greyish, banded with black, the subterminal band very broad ; head dull rufous, and forehead, cheeks and throat whitish, with black centre streaks ; ear-coverts grey ; below rufous ; chest with broad black centres to all the feathers, becoming narrow shaft-streaks below ; cere and feet greyish white ; tip of bill blackish.

243. *Lophoictinia isura* (Gould), Syn. Bds. Austr., pt. iii., pl. 47 (1838). [*New S. Wales.*] Australia, E. & W.
Square-tailed Kite.

Gen. LXIX. ROSTRHAMUS Less. (1830).

Head not crested ; bill very long and slender, the upper mandible hooked almost into a sickle-shape, the cutting edges not festooned ; nostrils narrow ovals, horizontal ; tail about half as long as wing, nearly even.

Length ad. 13.5 ; wing 11.7 in. ; general colour lead grey, the wings blackish ; tail grey with a broad terminal band of black ; cere, lores, gape and feet orange yellow ; bill black ; iris red.

- ✓ 244. *Rostrhamus sociabilis* (Vieill.), N.D., xviii., p. 318 (1817). [*S. America : Corrientes et Rio de la Plata.*] S. America from Argentina and Peru to Colombia ; Central America, E. Mexico ; Cuba and Florida.

Larger and blacker ; length ad. 18 ; wing 14.1 in. ; entirely slaty black, with a brownish shade on wings ; base of tail and upper and under coverts white ; tail black, tipped with white, with a subterminal bar of ashy brown ; bill black ; cere and feet yellow.

245. *Rostrhamus hamatus* Temm., Pl. Col., i., pl. 61, 231 (1823). [*Brazil.*] [= *R. leucopygus* (Spix) of Sharpe.] N. Brazil, Guiana ? Colombia ?
Slender-billed Kite.

Gen. LXX. REGERHINUS Kaup (1845).

[= *Leptodon*, Sudev. of Sharpe.]

Tail rounded, outer feather shorter than middle one ;
loral space bare ; upper mandible without a tooth.

Length ad. ♀ 17 ; wing 11.7 ; tail 7.5. in. ;
above and below bluish slate, with narrow
irregular bars of white below ; primaries
blackish shaded with slate grey ; secondaries
whitish below, barred and tipped with black ;
tail ashy grey with 2 bands of black ; under
tail-coverts buff ; bill black. First mature
plumage generally browner, with a rufous
collar round hind neck ; below banded with
tawny rufous and ochraceous buff.

246. *Regerhinus uncinatus uncinatus* (Temm.), Pl. Col., i., pl. 103-5 (1824). [*Brazil=Rio Janeiro, apud* Chubb, type in Leyd. Mus.] Hook-billed Kite. Guiana, Venezuela, Brazil, Bolivia, Trinidad, Centr. Amer.

Larger (wing ♀ 12.6) and with a larger bill
(culmen 2-2.5 in. against 1.55-1.65 in. in
typical form).

- 246a. *Regerhinus uncinatus megarhynchus* (Des Murs), in Casteln., Voy., Ois., p. 9, pl. i. (1855). [*Sarayacu*, type in Paris Mus.] Large-billed Kite. E. Peru.

Wing ad. 9.70-10.50 in. ; tail black with 4
light bands, the 2 anterior ones white, others
light ash grey ; below white, barred with
pale grey anteriorly and umber posteriorly
(Ridgway).

- 246b. *Regerhinus uncinatus wilsoni* (Cass.), Jnl. Acad. Philad., i., p. 21, pl. 7 (1847). [*Cuba.*] Wilson's Kite. Cuba.

Gen. LXXI. LEPTODON Sudev. (1835).

The upper mandible with a single more or less pro-
nounced tooth.

Length ♀ 20–22 in.; wing 12.25–13.25 in.; above glossy black; head slaty grey; wing quills black, banded with slate grey; tail black with 3 bands of ashy grey and tipped with same; below white; bill blackish; feet yellow.

247. *Leptodon palliatus* (Temm.), Pl. Col., i., pl. 204 (1823). [*Brazil*, type in Brit. Mus.] [= *L. cayennensis*, auct. plur.]
Brazil, Peru, Guiana to Centr. Amer., Cayenne Kite.

Gen. LXXII. GYPOICTINIA Kaup (1847).

Bill not toothed; head crested; loreal space feathered; wings reaching to end of tail; greater part of tarsus bare in front.

Length 24; wing 19; tail 8.5 in.; general plumage above and below blackish, browner on scapulars and more rufous on rump; crest and nape tawny rufous with black centres to the feathers; thighs and under tail-coverts rufous, with black shaft-lines; tail ashy grey above, whitish near base and below; lesser wing-coverts and secondaries margined with ashy grey; primaries ashy white at base.

248. *Gypoictinia melanosterna melanosterna* (Gould), P.Z.S., 1840, p. 162 (1841). [*N.S. Wales*, type in Mus. Philad. Acad.]
Blackbreasted Buzzard. Interior of N.S. Wales, S. Australia.

“Differs from *G. m. melanosterna* in lacking the black on head and breast.”

- 248a. *Gypoictinia melanosterna decepta* Math., Nov. Zool., xviii., p. 250 (1912). [*Parry's Creek, N.W. Australia*.]
Northern Buzzard. W. Australia, Northern Territory.

Gen. LXXIII. ELANUS Savigny (1809).

Tarsus feathered for nearly two-thirds of its length in front; claws without groove on under surface.

Sexes nearly similar in size; length ad. about 13; wing 10.15–11.20; tail 5.16 in.; above ashy grey, lighter on head; forehead, eyebrow, and face white; feathers round eye black;

lesser and median wing-coverts and a patch on outer edge of wing black ; tail whitish, the 2 centre feathers ashy grey ; below silky white ; sides of breast pale silvery grey, wing quills dark or blackish slate below ; cere and feet yellow ; bill blackish ; iris carmine. Immature browner above and streaked with rufous on chest and flanks.

249. *Elanus caeruleus caeruleus* (Desf.) Mém. Acad. R. des Sciences, 1787, p. 503, pl. xv. (1789). [near *Algiers*.]
Black-winged Kite.
- Africa N. to Mediterranean ; Palestine, S.W. Asia, India, Ceylon* ; Burma ; cas. in S. Europe.

Slightly larger ; wing ♀ 11.60–12 ; tail 6 in. ; ♂ wing 11.75 in. ; above ashy grey ; primaries slate ; wing-coverts black, the shoulder white on edge ; black patch on outer edge of wing nearly absent ; 2 centre tail-feathers paler grey, rest white ; fore-part of head and entire under parts silky white, including under wing-coverts ; wing quills white on basal half below. Immature : head and nape white, streaked with brown ; above browner, with white margins to all the feathers, including wing-coverts and quills.

- 249a. *Elanus caeruleus hypoleucus* Gould, P.Z.S., 1850, p. 127. [*Macassar*, type in Norwich Mus.]
White-breasted Kite.
- Philippine Is., Java, Borneo, Celebes.

Size similar ; wing ad. 11.50–12.30 in. ; tail 5.75–6.30 in. ; above paler, more silvery grey ; tail whitish ; primaries darker below, nearly blackish ; outer under wing-coverts black, forming a conspicuous patch below ; axillaries white.

250. *Elanus axillaris axillaris* Lath., Ind. Orn. Suppl., i., p. ix. (1801). [*New S. Wales*.]
Black-shouldered Kite.
- E. Australia.

* Ceylon birds have the smallest wing measurement and the primaries are darkest below, right to the base of the feathers.

“ Differs from *E. a. axillaris* in being lighter above.”

- 250a. *Elanus axillaris parryi* Math., Nov. Zool., xviii., p. 251 (1912). [*Parry's Creek, N.W. Australia.*] W. Australia, Northern Territory.
Western Black-shouldered Kite.

Rather larger, with longer tail; wing 12–13.30; tail 6.4–7.4 in.; above darker bluish ash, inner webs of secondaries paler, nearly white; black shoulder patch above variable, but not generally so large; black patch below smaller usually and confined to the outer greater under wing-coverts.

- 250b. *Elanus axillaris leucurus* (Vieill.), N.D., xx., p. 563 [err. 566] (1818). [*Paraguay.*] Whole of S. America, Southern United States.
White-tailed Kite.

Size similar; wing 11.5 in.; above paler, ashy white, with the black patches on wing-coverts and edge of wing; axillaries as well as under wing-coverts black, except bend of wing which is white.

251. *Elanus scriptus* Gould, P.Z.S., 1842, p. 80. N.S. Wales, Victoria, S. Australia.
[*S. Australia.*] Letter-winged Kite.

Gen. LXXIV. GAMPSONYX Vigors (1825).

Wings falling nearly an inch short of end of tail; tail feathers rounded, nearly even; tarsus short, feathered about half way down in front.

Size small, length ♂ 8; wing 5.8; tail 3.9 in.; ♀ wing 6.15 in.; above leaden black with a brownish shade on back; secondaries broadly tipped with white; tail below much paler; forehead and sides of face orange buff; sides of neck and a collar encircling latter white, below which is an interscapular patch of vinous red; below white, with small patch of black on each side of upper breast; the thighs pale buffish rufous, as also inner under wing-coverts, but not breast or flanks.

252. *Gampsonyx swainsoni swainsoni* Vigors, Zool. Jnl., ii., p. 69. (1825). [*near Bahia.*] Brazil, Paraguay.
Swainson's Pearl-Kite.

Size nearly similar ; wing ♂ (Merida) 6 ; tail 3.75 in. ; ♀ wing 6.20 ; tail 4 in. ; wing ♂ (Guiana) 5.90-6 ; ♀ wing 6.20-6.40 in. ; below with the sides of breast and flanks chestnut rufous [pure white in Bahia birds] ; thighs darker rufous in Venezuelan birds [but hardly more so in Guianan birds] ; forehead and sides of face slightly yellower and paler.

- 252a. *Gampsonyx swainsoni meridensis* subsp. nov. Venezuela (S. to Orinoco*), British Guiana.
 [♂ Nevada, Merida, Nov. 15, 1903, alt. 3,000 metres, in coll. H. K. Swann and Merida and Guiana examples in Tring Mus. and Brit. Mus.]
 Northern Pearl Kite.

“Upper surface darker and more strongly shaded with slaty grey ; forehead and sides of face straw colour instead of orange buff” ; total length 9.10 in. ; wing 6.20 ; tail 3.75 in. ; [sides of breast and flanks rufous.]

- 252b. *Gampsonyx swainsoni leonæ* Chubb, Bull. B.O.C., xxxix., p. 22 (1918). [Leon, Nicaragua, W. B. Richardson, Dec. 1892, type in Br. Mus.] Nicaragua.
 Nicaraguan Pearl Kite.

Largest ; “differing from *G. s. swainsoni* only in the larger wing and tail measurements” ; ♂ total length 9.65 ; wing 6.95 ; tail 4 in. ; ♀ wing 6.9 in. [Differs from *G. s. swainsoni* also in having sides of breast and flanks rufous.]

- 252c. *Gampsonyx swainsoni magnus* Chubb, Bull. B.O.C., xxxix., p. 21 (1918). [Amotape, Peru, July 22, 1899, P. O. Simons, type in Br. Mus.] W. Peru and W. Ecuador ; Bolivia ?†
 Western Pearl Kite.

Gen. LXXV. ICTINIA Vieill. (1816).

Upper mandible with the cutting edge lobed, but without a true tooth ; bill short and deep, and

* Examples from the Orinoco are more or less intermediate. Of those in Tring Mus. two have the sides strongly rufous, others only slightly.

† An example in Tring Museum from Prov. of Sara, Bolivia, ♂ has wing measurement of 6.65 in. and presumably belongs to this form ; another, ♀, from Calama River, Rio Madeira, has the wing 6.50 and is intermediate.

strongly arched, resembling that of *Falco*; cere short; tail square; wings reaching about 1.25 in. beyond end of tail.

Size small; wing ad. 11.5–12.5; tail 6 in.; above leaden black; wings and tail blacker; head lighter grey, nape a little darker; primaries pale chestnut on inner webs, conspicuous below; under parts slate grey; tail with 3 bars of white on inner webs below, the basal one concealed and sometimes wanting.

253. *Ictinia plumbea* (Gmel.), S.N., i., p. 283 (1788). [ex Lath.—*Cayenne*.]
Plumbeous Kite. Central and S. Amer. to Brazil and Paraguay.

Size similar; wing ♂ 10.5–11.5; ♀ 11–12.5 in.; above leaden black, paler on secondaries and blacker on primaries and tail, but latter without white bars below; head, neck and under parts clear grey; base of primaries chestnut on inner webs; bill black, feet orange red.

254. *Ictinia mississippiensis* (Wils.) Amer. Orn., iii., p. 80, pl. 25, fig. 1 (1811). [*Natchez, Mississippi*.]
Mississippi Kite. Southern United States; S. in winter to Mexico and cas. Guatemala.

Gen. LXXVI. HARPAGUS Vigors (1824).

Head not crested; nostrils oval with central tubercle; bill with 2 distinct teeth; tarsus slender with broad transverse scales; feet small and weak; wings very short, hardly reaching to middle of tail; size small.

Wing ad. 8.1; tail 6 in.; above slaty grey, head darker and wings browner; tail dark brown, with narrow bands of greyish white; below pale grey, the throat and under tail-coverts white; thighs bright ferruginous.

255. *Harpagus diodon* (Temm.), Pl. Col., i., pl. 198, 1824. [*Brazil*.]
Red-thighed Hawk. South Brazil (Rio Grande do Sul to Bahia).

Size similar; above [oldest dress] much darker, slaty black; tail with 2 brownish white bands; throat white, with median black streak; upper chest greyish, below banded with grey and white; less old birds have tail browner, with 3 narrow whitish bands and another across upper tail-coverts; below chestnut rufous, irregularly barred, except on chest, with whitish and indistinct darker bars.

256. *Harpagus bidentatus bidentatus* (Lath.), Ind. Orn., i., p. 38, 1790. [*Cayenne.*] Peru, Guiana, Venezuela, Colombia.

Size slightly larger, wing ad. 8.8 in.; above browner; below banded as in less old stage of last form.

- 256a. *Harpagus bidentatus fasciatus* Lawr., Pr. Phil. Acad., 1868, p. 429. [*Guatemala.*] Central America (Guatemala to Panama).

Gen. LXXVII. BAZA Hodgs. (1836).

Size moderate, length under 20 in.; head with occipital crest; bill with 2 teeth (sometimes appearing as serrations); nostrils linear ovals, without tubercles; wings reaching to or beyond end of tail.

Wing ad. 9.50–9.85; tail 5.7 in.; crest long; above glossy greenish black, browner on sides of head and throat; secondaries white, except at edges and tips, chestnut subterminally [except in very old birds]; chest white, followed by a band of black across upper breast, more or less mixed with chestnut; lower breast and flanks creamy white, banded with chestnut; vent, thighs and under wing- and tail-coverts greenish black. Immature: much more chestnut in secondaries and less barred below.

257. *Baza lophotes* (Temm.), Pl. Col., i., pl. 10 (1824). [*Pondicherry.*] India (sub-Himalayan dist. to Ceylon); Tenasserim; Indo-China; Malay Pen.

Larger; wing ♂ 12.5, tail 8 in.; ♀ wing 13, tail 9 in.; general colour brown, darker on mantle, most of the feathers with paler margins, those of head with rufous margins and white bases; crest dark brown; primaries ashy brown, banded with darker brown; tail ashy grey with 3 bands of dark brown; throat with median and moustachial blackish stripes; below white, upper breast and sides longitudinally marked with rufous brown, lower flanks almost uniform.

258. *Baza madagascariensis* (Smith), S. Afr. Q. Madagascar.
Jnl., ii., p. 285 (1835). [*Madagascar.*]
Madagascar Cuckoo-Falcon.

Smaller; wing ad. 11.6 in.; above ashy brown; head, crest and intercapulary region darker, inclining to slaty black; quills brown above and ashy white below, barred with dark brown on inner webs, the subterminal band broad; upper tail-coverts tipped and barred with white; tail ashy grey, tipped with white, with broad subterminal and 3 other bands of black; throat and chest clear grey; below buffy white, barred with tawny rufous; under wing-coverts uniform tawny rufous.

259. *Baza cuculoides cuculoides* (Swains.), Bds. W. Africa
W. Africa, i., p. 104, pl. I (1837). ["*W. Africa*" = *Senegal*?, type in Camb. Mus.] (Senegal to Gold Coast).
W. African Cuckoo-Falcon.

Much darker above, uniform slaty black; throat and chest pale grey, the barrings below confined to upper breast and of a much darker brown colour; belly, flanks, thighs and under tail-coverts pure white, with little trace of buff; under wing-coverts uniform rusty rufous.

- 259a. *Baza cuculoides batesi*, subsp. nov. [♂ *River Ja, Cameroon*, coll. G. L. Bates, Feb. 5, 1907. Brit. Mus. Reg., No. 1911. 5.31.60.] W. Africa
(Cameroon to Aruwhimi R., Upper Congo).

[Not seen.]

- 259b. *Baza cuculoides emini* Reichenow, J.f.O., Equatorial
1894, p. 163. [*Albert Nyanza.*] Africa.

Slightly larger; wing ♂ 12.7 in.; above rather dark ashy grey, shaded with brown; crown and crest blacker; upper tail-coverts ashy grey with brown tips; under wing-coverts barred with pale rufous and fulvous; ♀ browner above and more strongly barred below.

- 259c. *Baza cuculoides verreauxi* (Laf.), Rev. Zool., 1846, p. 130. [*Port Natal.*] Verreaux's Cuckoo-Falcon. S.E. Africa (Natal to Zambesi).

Wing ♂ 12.75, ♀ 13.10 in.; culmen 1.4 in.; crown and nape pale fulvous, with blackish central streaks; nape more tinged with rufous; crest long, black tipped with white; throat white with distinct central streak of black; foreneck and chest streaked with pale rufous; below white, with broad bands of pale rufous; oldest birds very much darker above and below, the bars below rufous brown, age apparently accounting for the light and dark forms of this species.

260. *Baza jerdoni jerdoni* (Blyth), Jnl. As. Soc. Beng., xi., p. 464 (1842). [*Malacca*, type in Mus. As. Soc. Beng.] Jerdon's Cuckoo-Falcon. E. Himalayas (Sikkim); Burmese countries; Malay Pen., Sumatra.

Slightly smaller; wing ad. 11.7 in.; crown black, edged with rufous; crest black, tipped with white; chin and throat buff with broad mesial black streak; chest tawny cinereous, with brownish shaft streaks; below white irregularly banded with pale rufous.

- 260a. *Baza jerdoni ceylonensis* Legge, Stray Feath., iv., p. 247 (1876). [*Matab, Ceylon.*] Ceylon Cuckoo-Falcon. Ceylon; S. India (Wynaad cas.).

Wing ♂ 11.5; culmen 1.05 in.; "sides of face and neck dull rufous; chest white, the feathers edged with rufous and with triangular black centres; under wing-coverts rufous with paler edges; rufous bars on flanks broader and inclining to dark brown."

- 260b. *Baza jerdoni borneensis* Sharpe, Ibis, 1893, p. 557. [*Baran dist., Borneo*, type in Sarawak Mus.] Bornean Cuckoo-Falcon. Borneo

Wing ad. 12.3, bill stouter, culmen 1.5 in. ; above purplish brown ; crown and crest black ; throat and chest grey, former with broad black central stripe ; below white, banded with pale rufous ; sides of face greyish, washed with rufous.

- 260c. *Baza jerdoni magnirostris* (Gray), Cat. Accip. Philippine
B.M., p. 19 (1844, *nom. nud.*) ; (Kaup), Isis, Is.
1847, p. 343. [ex Gray, *Manila.*]
Philippine Cuckoo-Falcon.

Wing ad. 11–12 in. ; culmen 1.25 in. ; above darker brown ; ear-coverts dark cinereous instead of grey ; chest rufous ; below banded with darker rufous brown.

- 260d. *Baza jerdoni erythrothorax* Sharpe, P.Z.S., Celebes ;
1873, p. 625 (June 1873). [*Celebes.*] Sula Is.
Rufous-chested Cuckoo-Falcon.

Smaller ; wing (imm. ♀) 10.8 in. ; below white without median black line on throat ; breast and abdomen washed with creamy buff, sides and flanks with slight spots of pale tawny buff.

- 260e. *Baza jerdoni leucopias* Sharpe, Ibis, 1888, p. Palawan
195. [*Palawan I.*] Island
(Philippines).

Wing ♂ 12.85–12.95 ; ♀ 13.15–13.60 in. ; above brown, slaty black on wings ; head, neck and chest ashy grey ; with small occipital crest black ; tail ashy brown, with broad subterminal and 3 other black bands ; breast buffy white, banded with chestnut brown [blackish in oldest birds] ; thighs and under wing and tail-coverts buffy rufous.

261. *Baza subcristata subcristata* (Gould), Syn. Australia
Bds. Austral., pt. iii., pl. 46 (1838). [*New S. (N.S. Wales,
Wales.)*] Queensland) ;
Australian Cuckoo-Falcon. S.E. New
Guinea.

Smaller ; wing ♂ 11.65–12.10 ; ♀ 12.5–12.85 in.

- 261a. *Baza subcristata timorlaoensis* Meyer, Abhandl. Tenimber
Ber. Zool. Mus. Dresden, 1892–3. No. 3, p. Island.
5 (1893). [*Timorlaut.*]
Tenimber Cuckoo-Falcon.

- Scarcely smaller; wing ♂ 11.30–11.65; ♀ 11.85–12.35 in.; fore neck and chest very pale grey; bands on under parts narrower, as also those on under surface of quills.
- 261b. *Baza subcristata pallida* Stresemann, Nov. Zool., xx., p. 307 (1913). [♂ *Tual, Kei Is.*, Kühn coll., Tring Mus.] Kei and Goram Is.
- Wing ♂ 11.25–11.90, ♀ 11.25–12.10 in.; head, neck all round, intercapulary region and chest ashy grey; crest blackish; scapulars and inner secondaries chocolate brown; breast and flanks buffy white, with blackish brown crossbars; vent, under tail-coverts and under wing-coverts orange buff.
- 261c. *Baza subcristata reinwardti* (Müll. & Schl.), *Naturl. Versch., Av.*, p. 35, tab. 5 (1843). ["*Celebes, Borneo*," errore—type loc. subst. Stresemann: *Amboina*.] Reinwardt's Cuckoo-Falcon. Moluccas (Ceram, Amboina, Bouru, Aru Is. Misol); New Guinea.
- [Said to be larger.]
- 261d. *Baza subcristata megala* Stresem., Nov. Zool., xx., p. 307 (1915). [*Fergusson I., D'Entrecasteaux Archip.*] Fergusson I.*
- Size almost the same; under wing-coverts paler isabelline colour.
- 261e. *Baza subcristata gurneyi* Ramsay, Jnl. Linn. Soc. Zool., xvi., p. 130 (1881). [*Solomon Is.*] Solomon Islands Cuckoo-Falcon. Solomon Islands.
- Slightly larger; wing ♂ 12.25–12.35; ♀ 12.50–13.05 in.
- 261f. *Baza subcristata bismarcki* Sharpe, in Gould's Bds. New Guinea, i., pl. 4 (1888). [*Bismarck Archip.*] Bismarck's Cuckoo-Falcon. New Ireland, New Guinea, Duke of York I. & New Hanover.
- Wing ad. 12.50 in.; hind neck much darker grey; throat and chest light ashy grey, but chest with broad tips of rusty rufous, obscuring the grey; below closely and broadly

* Said to be a synonym (*cf.* Ogilvie Grant, *Ibis*, Suppl., ii., p. 270, 1915), and *B. s. stenozona* Gray, from Aru Is., seems non-separable.

barred with light rusty rufous ; under tail-coverts buffy rufous.

- 261g. *Baza subcristata rufa* Schl., Vög. Ned. Ind. N. Molucca
Valkvög., pp. 41, 78 (1866). [*Halmahera*, etc.] Islands
Rufous Cuckoo-Falcon. (Halmahera,
Morotai,
Batchian,
Ternate, etc.).

Gen. LXXVIII. HENICOPERNIS Gray (1859).

Wings falling much short of end of tail ; tail very long, more than five times length of tarsus ; head slightly crested.

Size large ; wing ♀ 17.30 ; tail 11.5 in. ; ♂ wing 14.20–14.50 in. ; above ashy brown, broadly barred with black, except on lower back and rump ; head and hind neck streaked with blackish and much varied with white ; tail with 5 broad black bands ; below creamy white, with broad streaks of dark brown on throat and breast, narrowing below ; cere and bill bluish white, tip of latter blackish ; feet yellowish white ; iris orange yellow.

262. *Henicopernis longicauda longicauda* (Garnot), New Guinea,
Voy. Coq., i., p. 588, pl. 10 (1826). [*Dorey*, Salawati,
Dutch New Guinea, type in Paris Mus.] Misori I.,
Long-tailed Kite. Waigiou,
Aru Is.

Size similar ; wing ♂ 14.–14.20 in. ; much darker ; wing-coverts and upper scapulars dark brown instead of banded with light and dark brown ; dark bands broader and light bands narrower on wings ; tail with 4 dark bands ; below blackish brown with pale edgings.

- 262a. *Henicopernis longicauda infuscata* Gurney, New Britain.
Ibis, 1882, p. 128. [*Blanche Bay, New Britain*, co-type in Brit. Mus.]
Gurney's Long-tailed Kite.

Gen. LXXIX. MACHÆRHAMPHUS Westerm. (1851).

Head strongly crested ; bill weak and slightly keeled ; loreal plumes produced above half the nostril.

Length ad. 18.5 ; wing 14.2 ; tail 7.8 in. ; black, with a chocolate brown shade ; a well-defined spot above and below eye white ; throat and centre of chest white ; chin and a broad streak down throat, as well as sides of latter, and a few spots on lower parts black.

263. *Machærhamphus alcinus* Westerm., Bigd. Malacca.
tot d. Dierk., i., pt. 2, p. 29, pl. 12 (1851).
[Malacca, type in Leyd. Mus.]
Malacca Pern.

Rather smaller ; wing ad. 13.9 ; tail 7.3 in. ; above chocolate brown ; white bases of feathers conspicuous on nape ; above and below eye a broad white line ; throat white, with dark brown moustachial line each side below gape and a faint central streak ; wing quills dark brown, banded with white below ; tail chocolate brown above, banded with pale brown, white below ; under parts white ; upper breast streaked with dark brown, lower breast and flanks dark brown mottled with white ; bill bluish, black at tip ; feet bluish white.

264. *Machærhamphus anderssoni* Gurney, P.Z.S., S.W. Africa,
1865, p. 618 [*Otjimbinque, Damaraland*, type Madagascar,
in Norw. Mus.] B. E. Africa,
Anderson's Pern. Uganda, Brit.
Centr. Africa.

[Not seen, doubtful form.]

- 264a. *Machærhamphus* [*anderssoni*] *revoili* Oust., Somaliland.
Bibl. Hautes Etudes, xxxi., art. 10, p. 2
(1866). [*Somaliland*.]

Gen. LXXX. PERNIS Cuv. (1817).

Size large ; head usually only slightly crested ; bill stouter ; basal plumes not produced beyond posterior margin of nostril ; wings and tail long ; tarsus short, feathered about half way down.

Wing ♂ 15.75–16.75 ; tail 11 in. ; plumage variable ; normally above brown, with paler margins and black shaft-stripes ; head ashy grey ; nape mottled with white ; wing quills darker at tips and with 2 basal dark bars, conspicuous on whitish under-side ; upper

tail-coverts barred and tipped with white ; tail paler brown, tipped with white, and with 3 dark bands ; below white, with brown streaks on throat, large blotches on breast and smaller spots on flanks and abdomen ; ♀ larger and with much less grey on head and more barred below. Imm. : head dark brown, rufous on sides and hind neck ; tail more banded ; below rufous brown, with distinct black shaft-streaks ; later under parts become barred with white.

265. *Pernis apivorus apivorus* (Linn.), S.N., i., p. 91 (1758). [*Europe*—restr. type loc. *Sweden apud Hart.*] Honey Buzzard. Europe, N. to Lapland, S. to Spain, N. Italy and Greece, E. to Ural and Asia Minor ; in winter S. to Africa, cas. Canaries.

Larger ; wing ♀ 18.75 in. ; head, nape and band round lower throat black, the nape mottled with white bases to all the feathers.

266. *Pernis orientalis* Tacz., Faune Orn. Sib. Or., i., p. 50 (in Mem. Ac. St. Petersb., xxxix., 1891). [*E. Siberia*, type in Warsaw Mus. (W. Sclat.)] Siberian Honey Buzzard. E. Siberia ; in winter to S. China.

Slightly smaller ; wing (Java) ♂ 17.25 in. ; crest of long feathers ; general colour deep chocolate brown, with black shaft lines below ; crown black ; sides of head grey and scaly-looking ; an imperfect line across lower throat black ; tail with very broad central band of pale ashy brown and broad terminal and less broad sub-basal black bands, the base brown mottled with ashy and white. Immature : buffish to white below, with broader shaft-stripes.

267. *Pernis cristatus cristatus* Vieill., Tabl. Enc. Meth. Orn., p. 1225 (1823). [*Java*, type in Paris Mus.] [= *P. ptilonorhynchus* and *P. tweeddalei*.] Crested Pern. Java, Sumatra, Malay Pen., Siam ; Borneo ; Philippines

Wing ad. (av.) 16.5 in. ; crown and sides of head ashy grey ; general colour chocolate brown ; tail with broad terminal black band and another narrower one nearer base, the wide interspace and basal band ashy brown ; below with distinct black shaft-stripes.

- 267a. *Pernis cristatus ruficollis* Less., *Traité*, p. 76 (1831) ; Des Murs, *Icon.*, pl. 14. [*Bengal*, type in Paris Mus.] [= *P. c. ellioti*.]
Indian Crested Pern.

Indian Peninsula,
Ceylon,
Assam,
Burma ?

Smaller ; length ad. 21.5 ; wing 14.7 ; tail 10.5 in. ; above chocolate brown, the head blackish ; feathers of hind neck margined with rufous ; lores and feathers round eye grey ; throat white, with distinct black shaft-stripes, and black moustachial and central streaks ; chest tawny rufous, with broad central streaks of black ; below white, barred with blackish brown ; tail brown with 5 bars of darker brown and remains of other bars on the interspaces, the tip whitish.

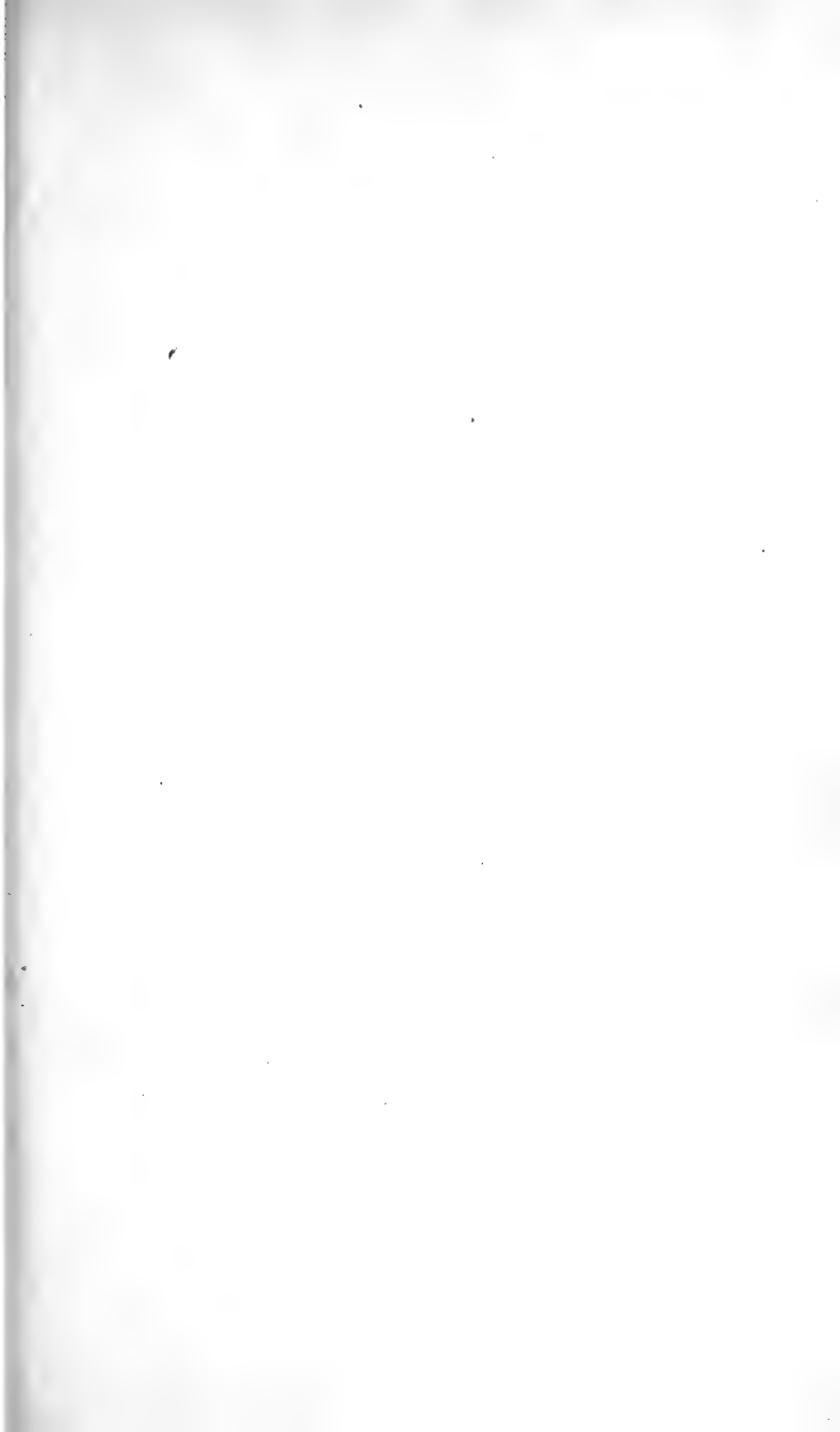
268. *Pernis celebensis celebensis* Walden, *Tr. Z. S.*, viii., p. 111 (1872) [*Celebes*, type in Br. Mus.]
Celebes Pern.

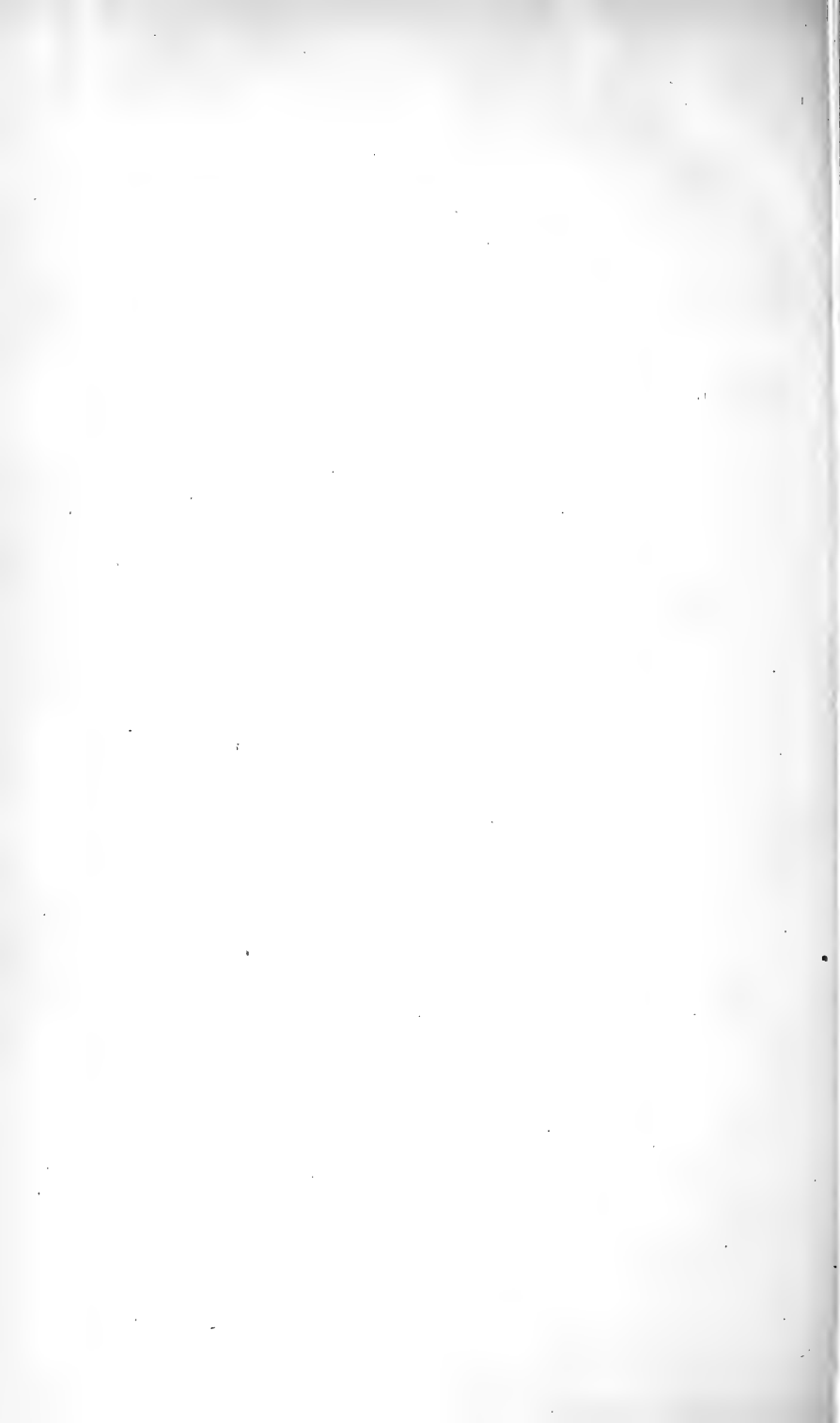
Celebes.

“Resembling *P. c. celebensis*, but with a long crest composed of one or two elongated feathers, usually measuring about 2.5 in. and coloured black with white bases ; as a rule, not so richly coloured . . . the transverse banding on belly and under tail-coverts brown and white, not black and white, and black on under wing-coverts also paler.”

- 268a. *Pernis celebensis steerei* W. Sclat., *Bull. B.O.C.*, xl., p. 41 (1919). [*San Antonio, Negros*, type in Brit. Mus.]

Philippine Is. (Luzon, Samar, Negros, Mindanao, Basilan.)





A

SYNOPTICAL LIST

OF THE

ACCIPIITRES

(Diurnal Birds of Prey)

PART IV.

(FALCONINÆ AND PANDIONES)

Comprising described Species and Subspecies, with their
Characters and Distribution

BY

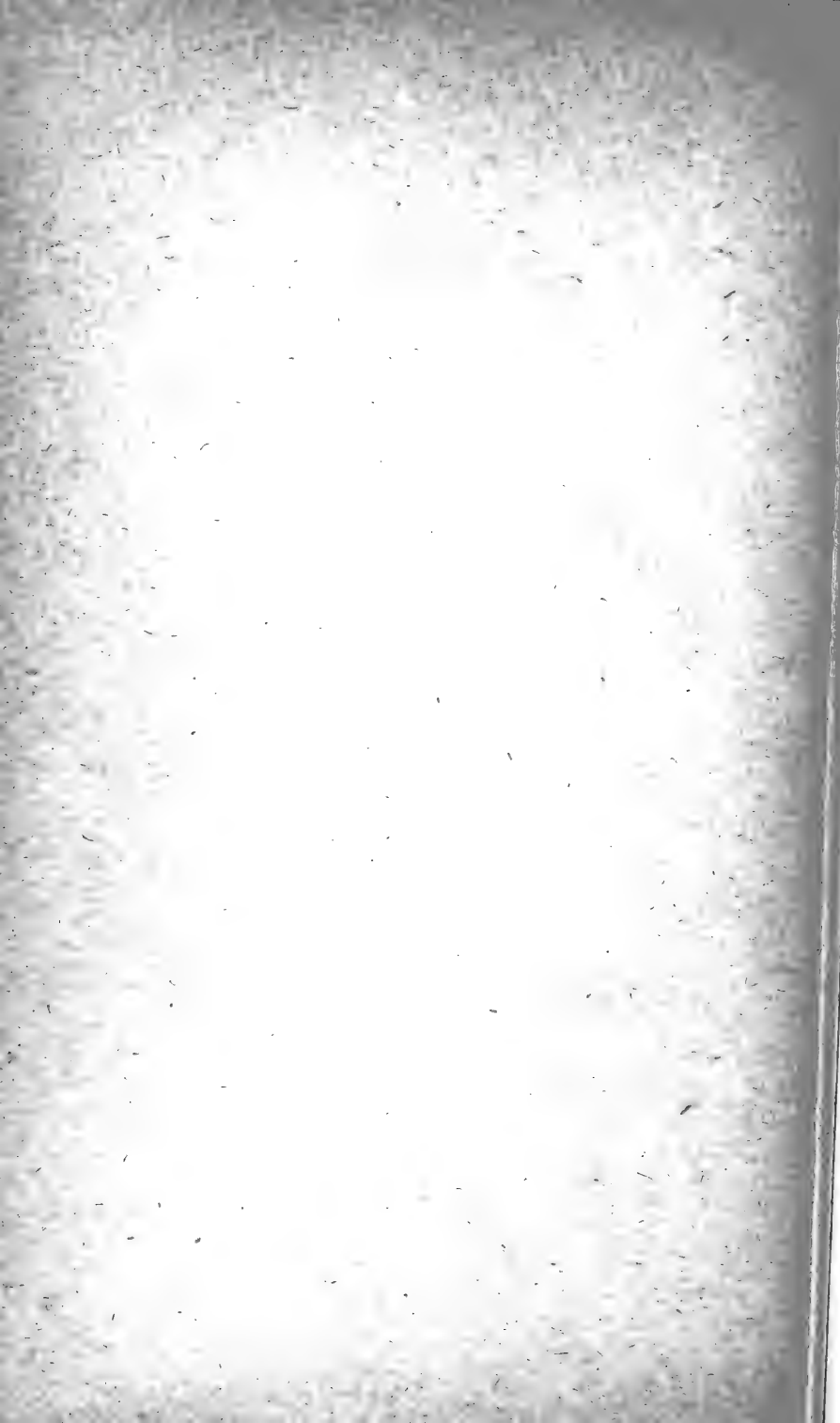
H. KIRKE SWANN, F.Z.S., M.B.O.U.

Corresponding Fellow of Amer. Orn. Union.

LONDON :

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KINGSWAY, W.C.2

1920



A
SYNOPTICAL LIST
OF THE
ACCIPITRES
(DIURNAL BIRDS OF PREY)
PART IV.

Sub. Fam. VII. FALCONINÆ.

Bill short, curved from the base, with one distinct tooth near the end of cutting edge of upper mandible; nostrils usually circular with central tubercle; feet strong; tibia much longer than tarsus; toes long, talons curved and sharp; tarsus short, usually reticulated; wings long and pointed; size moderate, or small.

Gen. LXXX. MICROHIERAX Sharpe (1874).

Nostrils perpendicular ovals, without central tubercle; tarsus covered with broad scales in front and feathered nearly half way down; wings proportionately shorter than in *Falco*.

Size very small; length 5.5; wing ♂ 3.90-4.25; ♀ 4.10-4.40 in.; above greenish black; forehead, broad stripe above eye and down sides of neck, as well as collar on hind neck, white; primaries barred with white on inner webs; tail with 5 or 6 white bars on inner webs, basal one concealed and subterminal one either obsolete or a tiny spot; below entirely ferruginous, darkest on throat, vent and thighs and

paler on chest ; sides of breast greenish black. Immature with stripes on sides of head rufous, instead of white, and throat, chest and breast white.

265. *Microhierax caerulescens caerulescens** Linn., Himalayas to Bhutan.
S.N. i., p. 88 (1758) [ex. Edwards—"Asia" = *Bengal*]
Red-breasted Pigmy Falcon.

Wings shorter ; ♂ 3.75 ; ♀ 4.10 in. ; throat vent and thighs only ferruginous, chest and breast silky white, the latter slightly washed with ferruginous ; tail with the subterminal white band in the form of two fair-sized spots of white, much larger than in last form.

- 265a. *Microhierax caerulescens burmanicus* subsp. Burma, Siam, Cambodia, S. Annam.
nov. [♂ *Thayetmyo*, Burma, E. W. Oates, Hume Coll. 1871. Brit. Mus. Reg. No. 85, 8, 19, 2195]
White-breasted Pigmy Falcon.

Size of *M. c. caerulescens* ; wing ♂ 3.50, ♀ 4 in. ; without the white collar on hind neck ; no white eyebrow but sides of neck with a white patch ; cheeks and ear-coverts forming a large rounded patch of black ; chest white ; abdomen and under tail-coverts pale chestnut, the longer under tail-coverts and whole flanks glossy black ; tail with 5 or 6 white bars on inner webs, first one concealed ; wing quills spotted rather than barred on inner webs.

* This is quite certainly the correct name for this species. Edwards's plate accurately represents the Indian form except for the white neck band, a point which has given rise to much discussion, but there is no doubt this is an accidental variation, as in the Brit. Mus. coll. such a bird actually exists, without a trace of white collar, from Riocour's collection. (B. M. Reg. No. 89, 5, 30, 48) marked "Malaisie," and although not of the Indian race it proves the possibility of the collar being lost. The Indian form, it should be remarked has the under parts white (except vent and thighs) when immature, but nearly uniform ferruginous when adult. The eastern form on the other hand has, when adult, only a small throat patch and the vent and thighs ferruginous, with a wash of same on breast. In a large series a good deal of variation is found in the width and purity of the white collar, and Indian examples in particular often show a strong shading of black on it.

266. *Microhierax fringillarius* Drap., Dict. Class. d'Hist. Nat. VI., p. 412. pl. 5 (1824). ["Indes"—type loc. sugg. *Malacca*] Malay Peninsula, Java, Sumatra, Sarawak.
Malayan Pigmy Falcon.

Slightly larger; wing ♂ 4.30, ♀ 4.75; above glossy black; forehead, narrow line above eye and down side of neck as well as entire under parts white; cheeks and ear-coverts as well as sides of breast black; thighs white; wing quills broadly banded with white on inner webs; tail with 5 or 6 white bars on inner webs.

267. *Microhierax melanoleucus melanoleucus* Blyth, Jnl. As. Soc. Beng. XII., pt. 1, p. 179* (1843). [*Assam.*] Assam, Cachar to Indo-China?
Black and White Pigmy Falcon.

Size similar; wing ad. 4.25; similar, but having an irregular white nape band and with more black on sides of body. [See pl. 8 *Oiseaux de la Chine*, David et Oustalet, 1877].

- 267a. *Microhierax melanoleucus sinensis* Sharpe, Ibis, 1875, p. 254 [new name for *M. chinensis*, David, Bull. Soc. Philom. Séance 27 Fevr. 1875, (*Kiangsi*)]. China.

Size of *M. fringillarius*; (wing ad. 4 in.); greater part of crown as well as forehead white; region round eye black; cheeks white; no white stripe on sides of neck; below paler than in *M. fringillarius*; but sides and thighs black.

268. *Microhierax latifrons* Sharpe, Ibis 1879, p. 237 [*Lawas River and Lumbidan*], type in Brit. Mus. N. Borneo.
White-headed Pigmy Falcon.

Size similar; wing ♂ 4, ♀ 4.25 in.; above greenish black; primaries barred with white on inner webs in ♂, uniform black in ♀; cheeks, ear-coverts, sides of neck

and under surface silky white; the sides, flanks, thighs and lower under tail-coverts black; tail entirely black.

269. *Microhierax erythrogenys erythrogenys* Vigors, P.Z.S. 1831, p. 96 [*Luzon*, type in Brit. Mus.] N. Philippine Is. (Luzon).
Luzon Pigmy Falcon.

Larger; wing ♂ 4.30-4.45; ♀ 4.60-4.80 in.; under wing-coverts and inner webs of primaries uniform black in ♂; belly, vent and under tail-coverts washed with pale fulvous.

- 269a. *Microhierax erythrogenys meridionalis* Ogilvie Grant, Ibis, 1897, p. 220 [♂ *Zamboanga*, *S. Mindanao*, ♀ *Samar*, types in Brit. Mus.] S. Philippine Is. (Samar, Cebu, Mindanao).
Samar Pigmy Falcon.

Gen. LXXXI. POLIOHIERAX Kaup (1847).

Nostrils as in *Microhierax*; tarsus less feathered in front.

Size small; length ♂ 7.5; wing 4.6 in.; wing ♀ 4.8 in.; ♀ above bluish grey; head darker; forehead, sides of face and hind neck pure white; quills and tail brown, spotted on outer and barred on inner webs with white; upper tail-coverts white, as well as entire under parts; ♀, interscapular region and scapulars deep vinous chestnut.

270. *Poliohierax semitorquatus semitorquatus* Smith, Rep. Expl. Centr. Afr., p. 44 (1836). S. Africa, N. to Damalaland.
[Near *Latakoo*, *Bechuanaland*].
African Pigmy Falcon.

Above with head and neck darker slaty grey; below with white bars on under surface of wings and tail broader; wings rather longer; feet stronger and stouter;

[back chestnut brown in both sexes according to Heuglin].

- 270a. *Poliohierax semitorquatus castanonotus* Abyssinia.
Heugl., Ibis, 1860, p. 407. [Méré Belenia, White Nile].
Abyssinian Pigmy Falcon.

Larger; wing ♂ 5.7 in.; ♂ above slaty blue with black shaft lines; no white collar on hind neck; rump and upper tail-coverts white; tail with 3 bands of white, except on central feathers; below white, with black shaft lines, the flanks washed with grey; ♀ head and mantle bright ferruginous red.

271. *Poliohierax insignis* Walden, P.Z.S., 1871, Burma,
p. 627. [Tongoo, Upper Burma, type in Indo-
Walden Coll.] Chinese
Burmese Pigmy Falcon. Provinces.

Gen. LXXXII. SPIZIAPTERYX Kaup (1851).

Nostrils round with central tubercle; outer toe longer than inner; middle toe very short; distance between tips of primaries and tips of secondaries less than half length of tail.

Length ad. 11.5; wing 6.35; tail 5.7 in.; above ashy brown, the head blackish brown; rump and upper tail-coverts creamy white; wing-coverts with blackish central streaks and spots of white on each web; quills blackish with large spots of white; tail black, all but central feathers spotted on outer and barred on inner web with white; sides of face, eye-brow and hinder part of cheeks white; below ashy white, with blackish central streaks.

272. *Spizapteryx circumcinctus* Kaup, P.Z.S., Argentina.
1851, p. 43. [Chile, errore = Argentina].
Spot-winged Falcon.

Gen. LXXXIII. HARPA Bp. (1855).

Size much larger ; middle toe very long. Length ♀ 18.5 ; wing 10.8-11.4 ; tail 8.3 ins. ; ♂ wing 9.8-10.3 in. ; above blackish brown, narrowly barred, except on head, which is blackish, with pale rufous ; quills and tail barred with greyish white ; the tail bands 8 in number ; ear-coverts and moustachial streak black ; below buffy white, the breast and abdomen with central streaks of dark brown, broader on sides, which are also ocellated with large white spots ; thighs and under tail-coverts bright rusty red with dark brown shaft-streaks.

273. *Harpa novæ-zealandiæ novæ-zealandiæ* New Zealand ;
 (Gmel.) S.N., i., p. 268 (1789). [ex. Lath. Auckland
 —*New Zealand.*] Islands.
 New Zealand Quail-Falcon.

Smaller ; wing ♂ 9-9.2 ; ♀ 9.7-10.1 in. ; plumage similar ; [scarcely distinguishable except by sexing].

- 273a. *Harpa novæ-zealandiæ pottsii*,* Math. and New Zealand.
 Iredale, Ibis, 1913, p. 420. [*Puroah Bay, N. Island.*]
 Bush Falcon.

Gen. LXXXIV. FALCO Linn. (1758).

Distance between tips of primaries and tips of secondaries more than half length of tail ; first and third quills equal, second longest ; feet large and powerful ; tarsus short, reticulated ; toes long with curved and sharp claws, the outer toe rather longer than inner.

* *H. australis* (Hombr. & Jacq.) being not tenable, the small form has been re-named by Mathews and Iredale.

Length ♀ about 18 in. ; wing 13.85-14.60, ♂ wing 12-12.75 in. ; head, hind neck and wing-coverts blackish, as also cheeks, ear-coverts and short moustachial stripe ; forehead and sides of neck behind ear-coverts white ; rest of upper parts bluish slate, barred or arrow-headed with blackish ; tail broadly barred with black and tipped with white ; below white, with a buff tinge on breast, the chest with narrow black shaft stripes, breast spotted and belly and under tail-coverts irregularly barred with black ; bill bluish ; feet yellow. Immature brown above, with paler margins, including head ; tail barred with pale rufous ; immature also without the black head and longitudinally marked below.

274. *Falco peregrinus peregrinus* Tunst., Orn. Brit., p. 1 (1771). [Ex Pennant—*Gt. Britain.*]
Peregrine Falcon.

Europe, N. of Mediterranean ; in winter to Africa ; cas. Greenland.

With the black of cheeks and ear-coverts reduced to a narrow stripe and the white band behind much increased.

- 274a. *Falco peregrinus calidus* Lath., Ind. Orn. 1., p. 41 (1790). [*India.*]
Siberian Peregrine Falcon.

N. Asia, W. Siberia ; in winter to India, Ceylon, China, Egypt, Cyprus, N. Africa, and Malay Archipel.

Very slightly larger ; wing ♂ 13-13.15, ♀ 14.60-14.80 in. ; chest with a more

reddish buff tint, and with few or no markings.

- 274b. *Falco peregrinus anatum* Bp., Geogr. and Comp. List, p. 4 (1838). [ex. Aud. pl. 16 —*New Jersey*.]
American Peregrine Falcon.
- N. America (except N.W.); wintering in Southern U.S. and W. Indies; Southern S. America; England (cas.)

Size similar; darker above and below; the head not so black but more uniform with the dark plumbeous upper parts; below more heavily and broadly banded with blackish.

- 274c. *Falco peregrinus pealei* Ridgw., Bull. Essex Inst., v. p. 201 (1873). [*Oregon*, type in U.S. Nat. Mus.]
Peale's Falcon.
- Pacific Coast of N.W. America, from Oregon to Aleutian, Commander and Kuril Islands.

Smaller than *F. p. peregrinus* and with more slender feet; wing ♂ 11.05-11.85, ♀ 12.60-13.40 in.; less heavily marked below and with the ground colour more ruddy.

- 274d. *Falco peregrinus brookei* Sharpe Ann. and Mag. N.H. (4) xi., p. 21 (1873). [*Sardinia*, type in Brit. Mus. = *F. punicus*, auct.]
Lesser Peregrine Falcon.
- Mediterranean countries and islands, from S. Spain to Greece, Cyprus and Asia Minor, N. Morocco

Slightly smaller; wing ♂ 10.65-11.20, ♀ 11.05-11.35 in.; duller in colour than *F. p. peregrinus* and with the dark bars on abdomen closer together.

- 274e. *Falco peregrinus minor* Schleg., Abh. Geb. Zool. & Vergl. Anat., heft iii., p. 20 (1844). [*Mtns. of Cape of Good Hope.*] S. African Peregrine Falcon. Africa, from Cape Colony to the Blue Nile.

Smaller than *F. p. peregrinus*; wing ♀ 12.0-13.0 in.; below tawny ferruginous, paler on throat and sides of neck, marked on flanks, thighs and under tail-coverts with a few spots and cross bars of black.

- 274f. *Falco peregrinus peregrinator* Sund., Physiogr. Sällskapetets Tidsskr. Lund. i., p. 177, taf. 4 (1837). [*Indian Ocean, off Nicobar Is.*] Indian Peregrine Falcon. Indian Peninsula; E. to S. China.

Wing ♂ 11.65-12 in.; ♀ 13.25-13.50 in., ♂ head and nape deep black, including sides of face, cheeks and ear-coverts; interscapular region blackish, with obsolete bars of bluish grey; rest of upper parts bluish ashy, barred with black; tail blackish tipped with white, with broad subterminal and 11 other bars of black; throat and chest deep creamy buff, latter with a few black shaft stripes; below buffy white closely and narrowly barred with black, the sides and thighs tinged with grey; ♀ more ferruginous below and with the cross bars more irregular.

- 274g. *Falco peregrinus macropus* Swains., Anim. in Menag., p. 341 (Jan. 1838). [*Tasmania*] [= *F. p. melanogenys* Gould.] Black-cheeked Falcon. E. and W. Australia, Tasmania.

Size similar; wing ♂ 11.6 in.; darker above; chest much more rufous; under wing-coverts and axillaries more closely

bared with black, the white inter-bars more rufous ; under tail-coverts and thighs barred with bluish grey and black, instead of whitish and black.

- 274h. *Falco peregrinus ernesti* Sharpe, Ibis, 1904, p. 545. [*Mt. Dulit*, type in Brit. Mus.]
Hose's Falcon. Borneo, Greater Sunda Is., Philippine Islands, NewGuinea Fiji Islands

Slightly larger ; wing ♂ 12, ♀ 13.5 in. ; entire head, including cheeks and ear-coverts, hind neck, interscapulary region and least wing-coverts deep black ; rest of upper parts dark bluish ashy, barred and spotted with black ; tail with the apical quarter black, rest bluish ashy, barred with black ; under parts marked much as in *F. p. macropus*, but the bars broader and the lower parts with a pronounced grey shade.

- 274i. *Falco peregrinus cassini* Sharpe, Ann. & Mag. N.H. (4), xi., p. 223 (1873). [*Magellan Str.* and *Falkland Is.*]
Cassin's Falcon. Chile, Falkland Islands.

Immature ♂ [Tring Mus.]. Wing 9 in. ; above black with remains of rufous edgings ; an indistinct collar on hind neck pale rufous ; upper tail-coverts with broad ashy margins ; tail slate, tipped buffy white and indistinctly barred with black ; throat white, sides of head and moustachial patch black ; below rufous fawn, narrowly striated with black.

275. *Falco fasciinucha* Reichen. and Neum., Orn. M.B. iii., p. 114 (1895). [*Teita, E. Africa.*]
Kilimanjaro Falcon. E. Africa (Kilimanjaro district).

Smaller than *F. p. peregrinus*; wing ♂ 10.95-11.40, ♀ 11.10-11.60 in.; above much paler bluish grey, the cross bars fainter; crown dusky brown instead of black, the fore part tinged with rufous; entire hind neck rusty red, with some dusky mottlings; fore part of ear-coverts and cheek stripe blackish; throat and sides of neck buffish white; below pale buffy fawn, breast unspotted, but sides with a few blackish spots, becoming bars on under wing and tail-coverts. Younger birds dark brown above, with rufous margins; hind neck creamy white, tinged with rufous; below creamy white, breast and flanks streaked with brown, more broadly on the latter.

276. *Falco pelegrinoides pelegrinoides* Temm., Pl. Col. 479 (1830?) [*Nubia*] [= *F. barbarus* Linn. ? and *F. punicus* Levaill. jun.] Barbary Falcon. N. Africa (N. of the Sahara) from W. Morocco to Egypt; in winter S. to Khartoum.

Said to be darker above. [Doubtful form.]

- 276a. *Falco pelegrinoides arabicus* Erlanger, J.f.O. 1903, p. 293 [*Lahadsch*, type in Berlin Mus.]

Larger; wing ♂ 12, ♀ 13 in.; above lighter bluish grey; fore part of crown more rufous; hind part of crown greyish black; nape and hind neck clear rufous, with darker centres to many of the feathers; below buffy white, with arrow-head brown spots on centre of belly and bars on the sides; throat and chest unspotted.

- 276b. *Falco pelegrinoides babylonicus* Gurney, Ibis, 1861, p. 218, pl. vii. [*Oudh*, type in Norwich Mus.]
Red-capped Falcon.
- C. Asia, from Turkestan and E. Persia to Afghanistan and N.W. India; Mesopotamia; in winter S. to India; also to Sudan in Africa.

Size similar; wing ♂ 12, ♀ 14 in.; forehead whitish; fore part of crown black; rest of crown and nape brick-red, with black shaft stripes; moustachial stripe, feathers round eye and band down side of neck black; above dark brown, barred, except on interscapular region, with blue-grey, inclining to fulvous on scapulars and secondaries and more regular and paler grey on rump; tail regularly barred with fulvous grey and blackish brown; below vinous buffish, warmer on breast; streaked on chest and slightly spotted on sides with blackish in most birds, but nearly unspotted in oldest examples.

277. *Falco biarmicus biarmicus* Temm., Pl. Col. livr. 55, pl. 324 (1825). [*Kaffirland and Cape Colony*.]
South African Lanner.
- S. Africa, N. to Angola and E. Africa.

Slightly larger; wing ♂ 12.35-12.85, ♀ 14-14.75 in.; above darker and more uniform; nape less rufous; slightly more spotted below, but with the ground colour more buffish white, and the chest as a rule free from markings.

- 277a. *Falco biarmicus tanypterus* Schleg., Krit. Uebers. ii., p. 11 (1844). [*Nubia* and *Abyssinia*; restricted type loc. *Nubia*.] Nubian Lanner. Nubia, Egypt, Arabia, Palestine.
- Very slightly larger; wing ♂ 12.90-13.60; ♀ 14.35-14.85 in.; lower parts more heavily spotted with black.
- 277b. *Falco biarmicus abyssinicus* Neum., J.f.O. 1904, p. 369. [*Shoa*; type in Tring Mus.] Abyssinian Lanner. Abyssinia, Shoa, Gallaland, Blue and White Niles, Sudan to Hausa land & Togoland
- Similar to *F. b. feldeggii*, but paler and less marked with blackish on crown, also slightly smaller; wing ♂ 12.20-12.80, ♀ 13.35-14.25 in.
- 277c. *Falco biarmicus erlangeri* Kleinschm., Aquila, viii., p. 33 (1901). [*Tunis* and *Tangier*, *N. Morocco*, types in Kleinschmidt's coll.] North African Lanner. N. Africa (Atlas district from Tunis to W. Morocco).
- Size about the same; wing ♂ 12.20-12.90; ♀ 13.65-14.10 in.; with the under parts much more heavily spotted than in *F. b. biarmicus* and the ground colour more creamy white; crown and nape creamy rufous.
- 277d. *Falco biarmicus feldeggii* Schleg., in Vögel Europas von Susemihl, tafl. 8a (1843 or 1844); idem Abh. Geb. Zool. iii., p. 2-3 (1844). [*Dalmatia*.] European Lanner. S. Europe (Balkan countries [not extending to Russia], S. Italy.

Larger; wing ♂ 13.85-14.70, ♀ 15.45-16.60 in.; head pale rufous to rufous white,

with narrow blackish shaft stripes ; above earthy brown, all the feathers margined with rufous ; quills with the white bars on inner webs uniting on the margins ; tail barred with rufous white on the inner webs and with oval spots on the outer webs ; sides of face and throat white, with dusky streaks on ear-coverts, but little indication of a blackish moustache ; below whitish, the chest slightly and breast and belly thickly marked with blackish brown, more in form of bars on flanks. Immature : very little rufous on head ; moustache stripe more apparent ; tail with the central feathers generally unmarked ; below more heavily and longitudinally marked.

278. *Falco cherrug cherrug* Gray, in Hardw. Ind. Zool. ii., pl. 25 (1833-34). [*India*] Saker Falcon.

S.E. Europe (Balkan Penin. and S. Russia) ; Cyprus (cas.) C. Asia ; to N.W. India and China in winter.

Size similar ; more barred above with pale rufous ; tail regularly and closely barred across centre feathers, not marked with oval spots.

- 278a. *Falco cherrug milvipes* Hodgs., Gray's Zool. Misc., p. 81 (1844) [*nom. nud.*] ; Jerdon, Ibis, 1871, p. 240. [*Umballa, India.*] Hodgson's Saker.

High plateaux of Central Asia : Thibet ; Mongolia ; Nepal ; Baluchistan ; China ; in winter S. to India.

Smaller ; wing ♂ 12.50-13.0, ♀ 14-14.60 in.; feathers of crown dull rufous, with blackish brown centres ; nape rather paler and mottled with black ; above ashy brown, with pale fulvous margins ; rump paler and clearer grey ; tail ashy grey, tipped with white ; the outer feathers barred on inner web with whitish ashy ; below white, with narrow black moustachial stripe ; lower breast with a few dark shaft-streaks, flanks and thighs ashy brown.

279. *Falco jugger* Gray, in Hardw. Ill. Ind. Zool. ii., pl. 26 (1833-4). [*India.*] Laggar Falcon.

Indian Peninsula ; Baluchistan ; Assam.

Size similar ; wing ♂ 12-13, ♀ 13-14 in. ; above brown, with paler fulvous margins ; crown and nape with whitish margins ; tail tipped with white and all but the centre pair of feathers barred on inner webs with whitish, but outer webs scarcely spotted ; below white, chest streaked and breast and belly spotted with brown, more in form of bars on flanks.

280. *Falco mexicanus* Schleg., Abh. Geb. Zool. heft iii., p. 15 (1844). [ex. Licht.--*Mexico*] Prairie Falcon.

W. North America, from S. Brit. Columbia to S. Mexico.

Size small ; wing ♂ 10.6 in. ; above ashy, with indistinct fulvous margins and blackish shaft-stripes, especially distinct on head and nape, latter of which is whitish tinged with rufous ; tail with broad fulvous tip, and some obsolete black bars at apical end ; below white, tinged with buff on flanks and vent, and with narrow blackish shaft-streaks, except on throat.

281. *Falco hypoleucus* Gould, P.Z.S. 1840, p. 162 (1841). [60 miles from Swan River, W. Australia.]
Grey Falcon. Australia.
- Size large ; wing ♂14.3, ♀ 15.8 in. ; general colour blackish brown ; forehead and sides of head and neck and under tail-coverts mottled with white ; throat white, streaked with brown ; breast slightly spotted with buff ; tail barred.
282. *Falco subniger subniger* Gray, Ann. Mag. N.H. xi., p. 371 (1843). [Victoria.]
Black Falcon. Australia.
- Without bars on tail.
- 282a. *Falco subniger minnie* Math., Austr. Av. Rec. ii., p. 127 (1915). [Queensland.]
Queensland Black Falcon. Queensland.
- Size large ; wing ♂13.60-14.80, ♀ 15.25-16 in. ; head blackish grey ; above dark slate grey barred with pale bluish grey ; wings and tail browner, latter barred with bluish grey and tipped with white ; below white with a broad slate brown moustachial stripe, the breast and abdomen with drop-shaped stripes and flanks barred ; bill bluish, tip black ; feet yellow.
283. *Falco rusticolus rusticlus* Linn., S.N. i., p. 88 (1758). [Sweden.]
Norwegian Gyrfalcon. N. Sweden & Norway ; Lapland ; N. Russia ; S. in winter to middle Europe.

Larger ; wing ♂ 14.5, ♀ 16 in. ; above dark slate, barred with greyish white, the head streaked with dusky slate and buffish white ; chin and throat white ; below white, chest streaked and belly and sides spotted with slaty black.

- 283a. *Falco rusticolus islandus* [*partim*] Brün-
nich, Orn. Bor., p. 2 (1764). [*Iceland.*]
Iceland Falcon. Iceland and
S. Green-
land, S. in
winter to
Brit. Isles,
Europe and
N.E.
America.
- Size similar ; much darker above and be-
low ; above more sooty and with trans-
verse markings darker ; rump uniform
without markings ; thighs dark slaty,
with buffy white transverse spots. Im-
mature : very much darker ; uniform
dusky brown above.
- 283b. *Falco rusticolus obsoletus* Gmel., S.N. i.,
p. 268 (1789). [*"Freto Hudsonis"*] [= *F.*
labradorius, auct.] Labrador
Labrador Falcon. Labrador
Newfound-
land.
- Very slightly larger ; wing ♂ 14.35-14.90,
♀ 16-17 in. ; general colour white, the
feathers above marked with a slaty black
spot towards tip ; tail pure white and
head nearly so ; below with slight stria-
tions on flanks only. Immature : mark-
ings much heavier and browner ; head
with dark stripes and tail with transverse
dark markings.
- 283c. *Falco rusticolus candicans** Gmel., S.N. i.,
p. 275 (1789). [*"Islandia et Scotia,"* er-
rore, type loc. subst. Hartert—*Greenland.*]
Greenland Falcon. Greenland
& Arctic
America ;
in winter to
Brit. Isles ;
N.W.
Europe ;
Northern
United
States.

* The Gyrfalcons visiting Canada and the Northern United States in winter appear to be dark immature birds of this form, and not *F. r. rusticolus* as stated in the A.O.U. Cneck List (1910).

[Not seen]. Size slightly larger and tail longer than in *F. r. rusticolus*; wing ♂ 14.7-15.5; ♀ 15.8-17 in.; (Sewertz).

- 283d. *Falco rusticolus uralensis* (Sewertz. and Menzb.) Orn. Geogr. Europ. Russl., i., p. 288, tab. 3 (1882). [*Ural Mtns. Russia.*]
Ural Gyrfalcon.

N. Asia from the Ural Mtns. to Kamtschatka and Bering Is. †

Wing ♂ 14.6; differs from *F. r. rusticolus* in having upper parts reddish brown washed with ash, under parts ochraceous with tear-shaped dark brown stripes; tail brown, tipped with pale ochreous, the two middle feathers unbarred, rest with indistinct oval transverse reddish brown spots; tarsus bare for more than half its length. (Dresser). [Not seen.]

284. *Falco altaicus* (Menzb.), Orn. Turkestan, i., p. 272 (1892). [*Altai and Minusinsk.*]
Altai Gyrfalcon.

Mountain ranges of Central Asia; West Siberia.

Size small; wing ♂ 10-10.50, ♀ 10.75-11 in.; above dark slate grey, darker on head and paler on rump; hinder part of cheeks and sides of neck buffy white, with well-defined black moustachial stripe below; nuchal collar reddish white; tail slate grey, all but middle pair of feathers barred on inner webs with ferruginous; below creamy white, striped on breast and flanks with black; thighs and under tail-coverts rust-red.

† *Hierofalco grebnitzkii* Sewertz. and Menzb., described from Bering Island, is probably synonymous with this form.

285. *Falco subbuteo subbuteo* Linn., S. N., i., p. 89 (1758.) ["*Europe*" = *Sweden*.]
Hobby. Europe ; from Scandinavia and Brit. Isles to Mediterranean ; W. Siberia ; in winter S. to Africa & N.W. India.
- Size scarcely larger ; above paler ; below with the stripes rather smaller.
- 285a. *Falco subbuteo jugurtha* Hart. and Neum., J.f.O., 1907, p. 591. [*Tangier*.] [= *F. gracilis*, auct.]
North African Hobby. Tunis, Algeria, Morocco.
- Paler above and with slightly longer wings than *F. s. subbuteo* ; wing of ♂ nearly equal to wing of ♀ of typical form.
- 285b. *Falco subbuteo centralasiæ* (Buturl.) Orn. Mitt. ii., p. 175 (1911). [*Baimgol, Tianshan*.] [= *F. s. cyanescens* Lonnberg.]
Central Asian Hobby. Central Asia, S. to Chinese Turkestan and Assam.
- Slightly larger than *F. s. subbuteo* ; wing ♂ about 10.75 in. ; darker and more heavily marked below.
- 285c. *Falco subbuteo jakutensis* (Buturl.), Nascha Ochota, 4. 6, p. 71 (1910). [New name for his *F. saturatus*, type loc. *Tschuktschen-Bezirk, N.E. Siberia*.]
Kamtschatkan Hobby. E. Asia and Kamtschatka ; S. in winter to Japan & N. China.
- Similar to *F. s. subbuteo*, but smaller ; wing ♂ 9.40-9.75, ♀ 9.85-10.15 in.
- 285d. *Falco subbuteo streichi* Hart & Neum., J.f.O., 1907, p. 592. [*S. China—Swatow*.]
Chinese Hobby. China, from Kwangtung Prov. N. to Shensi.

[Not seen.]

- 285e. *Falco subbuteo erkutensis* Johansen, Orn. Siberia ;
 Jahr., xxv., p. 83 (1915). [*Irkutsk Gov.*] Irkutsk
 Siberian Hobby. Govt.

Wing ♂ 9.60-10, ♀ 9.75-10 in. ; sexes dis-
 similar ; ♂ above dark plumbeous ; tail
 black ; below blue-grey with faint blackish
 shaft-stripes ; thighs, vent and under tail-
 coverts chestnut ; under wing-coverts
 greyish black ; cere and feet brownish
 red ; ♀ head and neck rufous ; above ashy
 grey, barred with darker grey ; primaries
 barred with reddish white on inner webs ;
 throat and cheeks reddish white ; below
 rufous.

286. *Falco vespertinus vespertinus* Linn., S.N. E. and C.
 ed. xii., i., p. 129 (1766). [*"Ingria"* Europe, N.
 =*Prov. St. Petersburg.*] to Sweden
 Red-footed Falcon. and
 Archangel ;
 W. Siberia*
 Asia Minor ;
 cas.
 Brit. Isles ;
 in winter S.
 to Africa.

Smaller ; wing ♂ 9.25-9.70 in. ; ♂ under
 wing-coverts pure white, instead of greyish
 black ; feet orange ; ♀ head browner and
 below paler rufous, the breast white
 broadly streaked with black, becoming
 bars on the flanks.

- 286a. *Falco vespertinus amurensis* Radde, Reisen S.E.
 S. von O. Sibir., ii., p. 102 (1863). [*Amur.*] Siberia ;
 Eastern Red-footed Falcon. Mongolia,
 N. China ;
 in winter to
 India and
 E. Africa.

* Hartert considers *F. v. obscurus* Tschusi from W. Siberia to be a synonym.

Larger ; wing ♂ 12.40-12.90 ; ♀ 12-90-13.35 in. ; sexes dissimilar ; ♂ general colour blackish slate, browner on upper parts ; outer tail-feathers slightly barred with blackish ; below with a trace of rufous, but the thighs dark slate ; ♀ dark slate brown above, tail barred with rufous and blackish ; hind cheeks and throat deep buff, with a conspicuous black moustachial stripe ; breast buffish, becoming rufous on abdomen, striped with black ; thighs deep chestnut.

287. *Falco eleonoræ* Gené, Rev. Zool., 1839, p. 105. [*Sardinia*.]
Eleonora's Falcon.

Islands of Mediterranean ; W. Canaries ; N. Africa, Algeria to Morocco ; in winter S. to Madagascar.

Smaller ; wing ♂ 10.40, ♀ 11.2 in. ; sexes similar ; uniform leaden grey with black shaft-stripes to the feathers ; primaries and tail with whitish bands on inner webs ; cere, orbits and feet bright yellow ; bill bluish.

288. *Falco concolor* Temm. Pl. Col., pl. 330 (1825). ["*Senegal, Cotes de Barbarie, Egypt, Arabia*—typ. loc. sugg. : *Arabia*.] [*F. eleonoræ schistaccus* Erlang., a synonym ?]
Uniform Falcon.

E. Africa (coast from Red Sea to Madagascar) : Arabian Coast.

Wing ♂ 8.5, ♀ 9.1 in. ; above slaty black ; head, cheeks and ear-coverts deep black ; throat and sides of neck creamy white, washed with ferruginous ; below chestnut,

immaculate in old birds; in younger birds heavily marked with drop-shaped spots of black.

289. *Falco severus severus* Horsf., Trans. Linn. Soc., xiii., p. 135 (1822). [*Java*.]
Indian Hobby. Burma, Malay Peninsula & Archipel.; French Indo-China.

Wing ♂ 8.50, ♀ 9.0-9.50 in.; chest usually with black shaft-stripes; above darker; tail nearly black; below darker chestnut; quills and tail below either banded or unbanded in New Guinea birds, not always unbanded.

- 289a. *Falco severus papuanus* A. B. Meyer & Wiglesw. Abhandl. Ber. Mus. Dresden, 1892-3, No. 3, p. 6 (1893). [*S.E. New Guinea*.]
New Guinea Hobby. New Guinea; Celebes? Solomon Is.?

Above paler; wings and tail browner slaty; inner webs always barred below with pale cinnamon, chestnut of lower parts paler, without black markings in adults.

- 289b. *Falco severus indicus* A. B. Meyer and Wiglesw. Bds., Celebes, i., p. 84 (1898). [*Calcutta*.]
Central Indian Hobby. India; cas. Ceylon

Wing ♀ 9.6 in.; above sooty; primaries and tail-coverts with rufous bars on inner webs; throat buffy white; below black, with remains of chestnut edgings; thighs chestnut, streaked with black; younger bird chestnut below, streaked with black.

- 289c. *Falco severus religiosus* Sharpe, Cat. Bds. Brit. Mus., p. 397 (1874). [*Ceram*, type in Leyden Mus.]
Moluccan Hobby. Ceram, Halmahera.

Wing ♂ 9.7, ♀ 10.5 in. ; above slaty blue, darker on head and lighter on rump ; primaries and tail barred on inner webs with rufous ; hind neck tinged with rufous, forehead white ; throat and sides of neck reddish white ; below pale dull rufous, with a few dark shaft-stripes on breast and obsolete grey bars on flanks.

290. *Falco longipennis longipennis* Swains., Anim. in Menag., p. 341 (1838). [*Tasmania*] [= *F. lunulatus* Lath.]
Little Falcon. East Australia ; Tasmania.

Smaller.

- 290a. *Falco longipennis murchisonianus* Math., Nov. Zool., xviii., p. 252 (1912.) [*E. Murchison.*]
Murchison Falcon. South and Mid. West Australia.

Larger than last form, and differs from typical form in its blue-grey upper surface and paler under surface.

- 290b. *Falco longipennis apsleyi* Math., Austral. Av. Rec. i., p. 33 (1912). [*Melville Island.*]
Northern Little Falcon. Northern Territory ; N.W. Australia.

[Not seen.]

- 290c. *Falco longipennis hanieli* Hellmayr, Avif. Timor, p. 100 (1914). [*Timor.*]
Timor Little Falcon. Timor.

Wing ♂ 8.5 in. ; above dark slate grey, blackish on interscapular region ; primaries and tail feathers dark brown, latter barred with fulvous on inner web ; forehead buffy white ; throat and sides of neck white, washed with rufous ; below rusty red, with central streaks of black on breast and sides ; under wing-coverts buff, streaked with black.

291. *Falco cuvieri* Smith, S. Afr. Q. Jnl., i., p. 392 (1830). [*Cafferland, near Kai River.*] African Hobby. S. and W. Africa ; cas. in Egyptian Sudan.
- [Not seen.]
292. *Falco pyrrhogaster* Reichenow, Orn. M.B., xxiii., p. 25 (1915). [*Cameroon.*] Cameroon.
- Wing ♂ 9.45, ♀ 11 in. ; above black, most of the feathers bordered with slate grey ; tail with 3 bars of greyish white ; throat white ; below chestnut, except lower breast and under wing-coverts which are black, tipped and spotted with rufous buff.
293. *Falco deivoleucus* Temm. Pl. Col. i., pl. 348 (1825). [*Brazil.*] [= *F. aurantius* Gmel., auct.] Orange-breasted Falcon. South and Central America ; Brazil to Guatemala.
- Size small ; length ♂ 9-10 in. ; wing ♂ 7.3, ♀ 8.9 ; above slaty black ; tail black, tipped with white, and with 3 or 4 narrow bands of greyish white ; throat and sides of neck orange rufous to white with a tinge of rufous ; breast black, finely barred with white ; abdomen, thighs and under tail-coverts chestnut.
294. *Falco rufigularis rufigularis* Daud., Traité, ii., p. 131 (1800). [*Cayenne.*] [*F. albigularis* Daud., a synonym.] White-throated Bat Falcon. South and Central America, from Argentina to Mexico.
- Wing ♂ 7.85 in. ; "upper surface dark slate grey instead of black ; below with breast and sides of body dark brown, not black, and much more broadly banded with white."*

* A larger series is necessary to show if this form is really separable. Paraguayan birds (*F. ophryophanes* Salvad.) appear to me indistinguishable from typical birds.

- 294a. *Falco rufigularis pax* Chubb, Bull. B.O.C., xxxix., p. 23 (1918). [*Charuplaya, Bolivia*, type in coll. Brit. Mus.]
Bolivian White-throated Falcon.

Wing ♂ 7.45, ♀ 8.45 in. ; differs from *F. r. rufigularis* in being slate colour above, with black shaft-lines, instead of black with slightly paler margins ; bend of wing white varied with buff ; breast and sides of body blackish brown, instead of black, and the white bars broader.

- 294b *Falco rufigularis petoensis* Chubb, Bull. B.O.C., xxxix., p. 22 (1918). [*Peto, Yucatan, April 1888, Salv.-Godm. coll., types in Brit. Mus.*]

Size moderate ; length ♀ about 15.5 ; wing ♂ 10, ♀ 10.5 in. ; ♂ above dull slaty, greyer on crown and lighter on rump ; upper tail-coverts barred and tipped with whitish ; tail blackish brown, with about 6 white bands ; a band from behind eye round hind neck white, below which is a line of black on sides of neck ; throat, chest, ear-coverts and sides of neck buffy white ; sides of breast black, barred with white narrowly ; belly and vent tawny, buff ; ♀ larger and more richly coloured ; sides of head and under parts richer tawny.

- 295 *Falco fusco-carulescens fusco-carulescens* Vieill., N. Dict., xi., p. 90 (1817). [*Paraguay.*]
Aplomado Falcon. S. and C. America, from Argentina to Mexico.

[Not seen.]

- 295a. *Falco fusco-carulescens septentrionalis* Todd, Proc. Biol. Soc. Wash., xxix., p. 98 (1916). [*Arizona.*]
Arizona Falcon. Arizona.

Size small ; length ♂ 11.5 ; wing ♂ 8.25, ♀ 9 in. ; head and hind neck chestnut red ; above bluish slate, with remains of blackish cross bars, except on back and scapulars ; tail narrowly barred with black, with a broad black subterminal band and white tips ; eyebrow and moustachial stripe black ; forehead, sides of head and neck, throat and chest white, with a few black shaft-lines on latter ; below white thickly barred with black.

296. *Falco chicquera chicquera* Daud., *Traité*, ii., p. 121 (1800). [ex. Levaill., *Bengal.*] Indian Peninsula.
Red-headed Merlin.

Size similar ; wing ♂ 8.6, ♀ 9.45 in. ; paler, more barred above, especially on back and scapulars, and with bars on breast rather closer together.

- 296a. *Falco chicquera ruficollis* Swains., *Bds. W. Afr.*, i., p. 107, pl. 2 (1837). [*Senegal.*]* Tropical Africa to South Africa.
African Rufous-necked Falcon.

Size small ; length ♂ about 11 in. ; wing ♂ 8, ♀ wing 8.5 in. ; ♂ above dark to pale slate colour, with distinct black shaft-stripes, the head and wing-coverts darker ; hind neck mottled with rufous buff ; upper tail-coverts paler grey ; tail tipped with fulvous and crossed with 3 black bands, and broad subterminal one ; forehead, cheeks and throat fulvous, with narrow streaks of black, except on latter ; below ochraceous buff, with dark brown shaft-streaks, broadest on the flanks ; ♀ much browner above ; tail umber brown with 4 buffish white bands.

* *Falco horsbrughii*, Gunning and Roberts, *Ann. Trans., Mus.* iii., p. 110 (1911), [*Pretoria*], is a synonym of this species, a fact ascertained from a drawing made by Lt. Finch Davies from the type and examined by Dr. Hartert and myself.

297. *Falco columbarius columbarius* Linn., S.N., i., p. 90 (1758). ["America," ex. Catesby = Carolina.]
Pigeon Hawk. N. America in winter S. to W. Indies and North. S. America.

Darker form.

- 297a. *Falco columbarius suckleyi* Ridgw., Bull. Essex Inst., v., p. 201 (1873). [*Shoalwater Bay, Washington.*]
Suckley's Merlin. N.W. America, Sitka to N. California.

Size similar; wing ♂ 7.65-8, ♀ 8.50-8.85 in.; ♂ above rather lighter slate blue, with the black shaft-lines; below rather more rufous; tail slaty blue, tipped with white and with broad subterminal band, the other black bands nearly obsolete; ♀ above dark brown, tail with 5 narrow pale bands; below dull white streaked with brown.

- 297b. *Falco columbarius aesalon* Tunst., Orn. Brit. p. 1 (1771) [ex. Pennant, *British Isles.*]
Common Merlin. N. Europe to Brit. Isles and Central Russia; in winter S. to N. Africa.

Size similar; wing ♂ 7.75-8.10 in.; ♂ above lighter grey; ♀ above paler brown; much less heavily striped below.

- 297c. *Falco columbarius insignis* (Clark), Pr. U.S. Nat. Mus., xxxii., p. 470 (1907). [*Fusan, Korea.*]
Asiatic Merlin. Asia; Turkestan to China, Japan and Ussuriland; in winter to Cyprus, Syria, India, S. China.

- Slightly larger; wing ♂ 8.25 in.; above still paler grey and below with smaller and paler stripes; ♀ paler generally.
- 297d. *Falco columbarius pallidus* (Suschk.) Bull. Kirghis-
B.O.C., xi., p. 5 (1900). [*W. Kirghissteppe.*] steppe; in
Pallid Merlin. winter to
Turkestan
and
N.W. India
- Larger; wing ♂ 8.90, ♀ 9.85 in.
- 297e. *Falco columbarius lymani* Bangs, Bull. E. Asia,
M.C.Z., liv., No. 16, p. 465 (1912). [*Tsche- (Altai
gan-Burgazi Pass, Altai Mtns.)* Mtns.)
Altai Merlin.
- Wing ♂ 7.70, ♀ 9 in.; ♂ above earth brown, with greyer centres and black shaft-lines to all the feathers; tail with 5 bands of ashy white and tipped with the same; below buffy white, striped with ochraeous brown, broadest on the flanks; ♀ more similar to ♂, but the feathers of upper parts with ochraeous spots.
- 297f. *Falco columbarius richardsoni* Ridgw., Gt. Plains
Proc. Acad. Nat. Sci. Philad., 1870, p. 145 of W.North
(1871). [*Mouth of Vermilion River, S. America;*
Dakota.] Saskat-
Richardson's Merlin. chewan
Valley to
N. Dakota,
in winter to
N.W.
Mexico.

Gen. LXXXV. IERACIDEA Gould (1837).

Distance between tips of primaries and tips of secondaries less than half length of tail; tarsus transversely plated bear base of toes, and appreciably longer than in *Falco*.

Size moderate ; wing ♂ 13 in., ♀ 14 in. ; above sandy brown, most of the feathers edged with rufous ; head with blackish shaft-stripes ; tail ashy brown, tipped with white and barred with rufous ; below creamy white with brownish shaft-streaks, and a dark brown moustachial stripe ; thighs, axillaries and inner lower wing-coverts chestnut.

298. *Ieracidea berigora berigora* Vigors & Horsf., Interior of
Trans. Linn. Soc., xv., p. 184 (1827). [*New* S. Queens-
South Wales, types in Brit. Mus.] land and
Striped Brown Hawk. N.S. Wales.

Less rufous above, more uniform darker brown, without shaft stripes ; below without shaft-stripes, the sides blackish brown, often uniform blackish brown.

- 298a. *Ieracidea berigora orientalis* Sharpe Cat. Coastal
Bds. Brit. Mus., i., p. 422 (1874). [*New* districts of
S. Wales, ex. Schl. Naum. 1855, p. 254.]* S. Queens-
Brown Hawk. land and
N.S. Wales,
Whole of
Victoria.

Smaller ; wing (sex ?) 12.85 in. ; above brown with buffy tips.

- 298b. *Ieracidea berigora tasmanica* Math., Bds. Tasmania.
Austr., v., p. 276 (1916). [*Tasmania*.]
Tasmanian Brown Hawk.

Smaller.

- 298c. *Ieracidea berigora occidentalis* Gould, P.Z.S. S.W.
1844, p. 105. [*Perth*.] Australia.
Western Brown Hawk.

Wing ♀ 14.50 in. ; dark phase ; above and below smoky black or fuliginous brown.

* For the forms of this group, all very doubtfully distinct, see Mathews's Birds of Australia.

- 298d. *Ieracidea berigora kempi* Math., Bds. Cape York,
Austr., v., p. 277 (1916). [*Cape York*]. North
Kemp's Brown Hawk. Australia.
- Above dark rusty brown; cheeks black.
- 298e. *Ieracidea berigora melvillensis* Math., Aus- Northern
tral. Av., Rec., i., p. 34 (1912). [*Melville Territory,*
Is.] N.W.
Northern Brown Hawk. Australia.
- Very pale race.
- 298f. *Ieracidea berigora centralis* Math., Bds. Central
Austr., v., p. 277 (1916). [*Central Aus- Australia.*
tralia.]
Central Australian Brown Hawk.
- [Not seen.]
- 298g. *Ieracidea novæ-guineæ* A. B. Meyer, J.F.O., S.E. New
1894, p. 89. [*S.E. New Guinea.*] Guinea.
New Guinea Brown Hawk.

Gen. LXXXVI. CERCHNEIS Boie (1826).*

With the general characters of *Falco*, but wings not so long and 3rd primary nearly equal to 2nd; outer and inner toes equal. (Plumage always rufescent; sexes usually dissimilar).

Size small; wing ♂ 9.10-9.75, tail 6.25-6.50; wing ♀ 9.65-10.25, tail 6.50-6.75 in.; ♂ above brick-red, with a few arrow-head black markings, especially on the inner secondaries; head and neck blue-grey,

* Against the opinion of many systematists I feel it desirable to separate this group from *Falco*, not only because they form a natural group, distinctive in colouration, but also because this group contains within it certain groups of species, closely connected, but having many ramifying forms, which it seems undesirable to treat of under *Falco*.

with narrow black shaft lines ; primaries dark brown, notched with white ; lower back, rump and tail blue-grey, the tail with broad subterminal band of black and tipped with white ; below pale rufous fawn, chest with black streaks, becoming spots on flanks ; thighs rufous buff, throat and under tail-coverts buff, unspotted ; ♀ above entirely rufous, banded with black, with only a bluish shade on rump ; tail rufous barred with black ; below paler.

299. *Cerchneis tinnuncula tinnuncula* Linn., S.N., i., p. 90 (1758). [“*Europe*” = *Sweden*.] Common Kestrel.
- Europe, from 68° N. in Scandinavia and 61° N. in Russia to Mediterranean and N.W. Africa ; Brit. Isles ; W. and C. Asia ; in winter to Africa and India.

Below deeper and warmer than in typical form ; which it quite equals in size.

- 299a. *Cerchneis tinnuncula rupicolæformis* Brehm, Vogelfang, p. 29 (1855). [ex. Württemberg MS.—“*Egypt* and *Germany*” ; restricted type loc. *Egypt*.] Egyptian Kestrel.
- Egypt, Nubia.

Larger and averaging paler above and below ; wings and tail longer, the latter especially much longer than in other forms ; wing ♂ 9.85-10.10, ♀ 10.20-10.50 ; tail ♂ 6.75-7.75, ♀ 7.0-8.0 ins.

- 299b. *Cerchneis tinnuncula dörriesi* subsp. nov. Siberia
 [♂ *Sidemi*, *E. Siberia*, Dörries coll. June (Amur River
 2nd, 1884, Tring Mus. ; ♀ *Amur River*, *E. to Yeneisei)*
Siberia, Dörries coll., Mar. 27, 1894, Brit. and
 Mus. Reg. No. 97, 10, 30, 258.]* Mongolia ;
 Siberian Kestrel. S. in winter
 to India,
 Ceylon,
 Assam,
 Burma and
 China.
- Smaller ; wing ♂ 8.50-8.90, ♀ 8.90-9.50
 in. ; much darker above and below.
- 299c. *Cerchneis tinnuncula canariensis* Koenig, W. Canary
 J.f.O., 1889, p. 263. [*Canary Is.*] Islands
 Canarian Kestrel. (Tenerife,
 Gran
 Canary,
 Hierro,
 Palma,
 Gomera) ;
 Madeira.
- Size similar ; wing ♂ 8.8, ♀ 9 in. ; a dark
 form approaching the last.
- 299d. *Cerchneis tinnuncula neglecta* Schleg., Mus. Cape Verde
 Pays-Bas, Rev. Accipitres, p. 43 (1873). Islands.
 [*St. Vincent.*]
 Cape Verde Kestrel.
- Wing ♂ 8.40-8.90, ♀ 8.90-9.90 in. ; above
 as pale as in *C. t. tinnuncula*, below deeper
 rusty.
- 299e. *Cerchneis tinnuncula dacotiae* Hart., Vög. Canary Is.
 Pal. Faun., p. 1086 (1913). [*Lanzarote.*] (Fuerta-
 ventura,
 Lanzarote.)
 East Canarian Kestrel.

* Material from Siberia being very meagre, I have principally determined this form from the considerable number of large and long-tailed birds, always on the pale side, existing in collections from Ceylon, India, Assam, etc., which are obviously migrants from the north, and have no connection with the smaller and darker form breeding in N. India (*C. t. saturata*), with the rather darker but nearly typical bird breeding in W. Asia, or with the darker but large race breeding in Japan (*C. t. japonica*). A large immature ♂ bird in my collection from Ceylon has a tail measurement of 7.75 in. and there are birds in the Tring collection with nearly the same measurement.

- Larger ; wing ♂ 9.50-9.75, ♀ 10.0-10.55 in. ; head darker than in *C. t. tinnuncula* ; dark spots on mantle larger and with broad dark shaft-marks to the feathers ; below darker than *C. c. tinnuncula*.
- 299f. *Cerchneis tinnuncula japonica* Temm. and Schleg., in Siebold's Fauna Jap. Aves, p. 2, pl. 1, and 1b. (1844). [*Japan.*] Japanese Kestrel. Japan ; S. in winter to China & Hainan.
- Rather smaller ; wing ♂ 9.10-9.50, tail 6 ; wing ♀ 9.50-10 in. ; smaller and much darker than *C. t. tinnuncula* ; much deeper rufous above and more heavily spotted ; head and tail showing a great tendency to a rufous wash, and tail more generally with remains of black bars even when adult ; chest more heavily striped and breast with larger spots.
- 299g. *Cerchneis tinnuncula saturata* (Blyth). Jnl. As. Soc. Beng., xxviii., p. 277 (1859). [*Tenasserim.*] Himalayan Kestrel. Mountains of N. India to China ; in winter S. to Travancore ; cas. Ceylon?
- Smaller than *C. t. tinnuncula* ; wing ♂ 8.70-9.45 in. ; dark form approaching *saturata*.
- 299h. *Cerchneis tinnuncula carlo* Hart & Neumann, J.f.O., 1907, p. 592. [*Bissidimo near Harrar, type in Tring Mus.*] Central African Kestrel. Tropical Africa (Somaliland, Abyssinia and Blue Nile to Victoria Nyanza & Tanganyika) ; S. Arabia.

Size of *C. t. tinnuncula*; wing ♂ 10 in.; similar in general colouration, but with sides of face dull blue-grey like head; ♀ tail blue-grey banded with black, instead of rufous.

- 299i. *Cerchneis tinnuncula rupicola* Daud., Traité, ii., p. 135 (1800). [ex. Levaill.—Cape of Good Hope.] South African Kestrel. S. Africa, (Natal, Cape Colony, Damara-land).
- Smaller; wing ♂ 8.70-9.20, ♀ 9-9.60 in.; ♂ above deep bay, with broad arrow-head markings of black; head and hind neck uniform, streaked with black; rump, upper tail-coverts and tail bluish grey, latter with broad black subterminal band and white tips; throat rufous white; below bay colour, streaked on breast and arrow-headed on flanks with black; ♀ more banded above; tail with extra dark bars, besides the subterminal one.
300. *Cerchneis moluccensis moluccensis* Hombr. & Jacq., Voy. Pole Sud. Zool. Atlas, pl. 1., f. i. (1842) et texte iii., p. 46 (1853). [*Moluccas*?] Moluccan Kestrel. [C. t. orientalis a synonym.] Molucca Is. (Amboyna, Bouru, Ceram, Goram, Peling Is., Halmahera, Morotai, Ternate, Batchian).
- Smaller; wing ♂ 7.85 (Celebes) -9.20 (Java), ♀ (Flores) 9 in.; paler, with more greyish cheeks and ear-coverts, much whiter under wing-coverts and lighter underside.
- 300a. *Cerchneis moluccensis occidentalis* A. B. Meyer & Wiglesw., Abhandl. Ber. Mus. Dresd. 1896-7, No. 2, p. 8. [*Celebes*.] Javan Kestrel. Celebes, Lesser Sunda Is. to Kan-gean; Java.

Size similar ; wing ♂ 9.3, ♀ 9.8 in. ; ♂ above pale rufous, almost unspotted ; head pale bluish grey, washed with rufous, and with black shaft-lines ; rump and tail blue-grey, latter with broad subterminal black band and white tips ; sides of face greyish white ; below buffish white, the chest tawny buff, that and sides with black shaft-stripes ; under wing-coverts white ; ♀ head and tail like back, the tail barred with black.

301. *Cerchneis cenchroides cenchroides* Vig. and Horsf., Trans. Linn. Soc., xv., p. 183 (1827). [*N. S. Wales.*] East Australia.
Nankeen Kestrel.

- 301a. *Cerchneis cenchroides milligani* Math., Nov. Zool., xviii., p. 253 (1912). [*Parry's Creek, N.W. Australia.*] N.W. Australia, Northern Territory.
Dusky Nankeen Kestrel.

Smaller ; below darker, decided cinnamon pink ; tail rusty cinnamon.

- 301b. *Cerchneis cenchroides unicolor* Milligan, Emu, iv., p. 1 (1904). [*Yalgoo.*] S.W. and Mid. W. Australia.
Westralian Nankeen-Kestrel.

Larger ; wing ♂ 11, ♀ 11.4 in. ; ♂ above tawny rufous, with broad cross-bars of black ; head uniform, but streaked with black ; rump and upper tail-coverts blackish, barred with fulvous ; tail ashy rufous, banded with black, the subterminal band broad, followed by a white tip ; primaries blackish brown, the inner ones mottled with rufous on inner webs and spotted on outer webs ; below dull tawny rufous, breast streaked with brown, flanks more heavily marked ; under wing-coverts white ; ♀ similar, but flanks more barred.

302. *Cerchneis rupicoloides rupicoloides* Smith, South Africa.
S. Afr. Q. Jnl., i., p. 238 (1830). [*Groene River, Little Namaqualand*, type in Brit. Mus.]
Larger African Kestrel.
- Smaller, much paler above.
- 302a. *Cerchneis rupicoloides fieldi* Elliott, Field Somaliland.
Columb. Mus. No. 2 Orn., p. 58 (1897).
[*Somaliland.*]
Somali Kestrel.
- Rather darker, tail with narrower black bars, the pale ones more blue grey.
- 302b. *Cerchneis rupicoloides arthuri* (Gurney). Brit. E.
List Diurn. Bds. Prey, p. 156 (1884). Africa
[*Mombasa.*]
East African Kestrel.
- Wing ♂ 10.6 in. ; plumage above and below fox red ; head narrowly and back and wing coverts more broadly streaked with black ; the greater wing-coverts with remains of bars ; primaries black, margined and tipped with paler red ; tail darker red, with about 15 bars of black ; throat unmarked, but rest of under surface with narrow central streaks of black.
303. *Cerchneis alopex alopex* (Heugl.) Syst. N. E.
Uebers., p. 10 (1856), and Ibis, 1861, p. 69, Africa,
pl. iv. [*prov. Galabat.*] (Bogosland
to Shoa) ;
Fox-coloured Kestrel. Equat.
Africa
(Redjaf).
- 303a. *Cerchneis alopex deserticola* Reichenow, Togo Hin-
Orn. M.B., vii., p. 190 (1899). [*Mangu, terland ;*
Togo Hinterland.] Gold Coast
Desert Kestrel. Hinter-
land ?

Smaller ; wing ♂ 7.4 , ♀ 8.2 in. ; ♂ above, including head and neck, light rufous, streaked on head and neck and arrow-headed on scapulars and wing-coverts with black ; rump and upper tail-coverts dark bluish grey with more or less of black arrow-head markings ; tail bluish grey banded with black, the subterminal band very broad ; forehead, sides of head and under parts creamy white, tinged with rufous on chest, which is marked with elongated black spots, becoming more oval on breast and flanks ; under wing-coverts white, streaked with black ; ♀ similar.

304. *Cerchneis newtoni* Gurney, Ibis, 1863, p. 34, pl. 11. [*Madagascar.*] Madagascar Kestrel.

Size similar ; wing ♂ 7, ♀ 7.6 in. ; above dull foxy rufous, with rather broad bars of black ; head with blackish shaft-stripes ; tail deep bay, with 6 bands of black ; below white, with large oval spots of brownish black, smaller and more longitudinal on flanks ; ♀ similar.

305. *Cerchneis punctata* Temm., Pl. Col., i., pl. 45 (1823). [*Isle de France.*] Mauritius Kestrel.

Smaller ; wing ♂ 5.6, ♀ 6.3 in. ; ♂ above maroon-chestnut, with a few black shaft-lines and spots, chiefly on wing coverts and scapulars ; rump, upper tail-coverts and tail bluish grey, latter with broad subterminal and 4 other black bands ; head dark bluish grey ; sides of face paler ; below isabelline fawn colour, unspotted ; ♀ scarcely differs.

306. *Cerchneis gracilis* (Less.) Traité, p. 93 (1831). [*Seychelles.*] Seychelles Kestrel.

Size small ; wing ♂ 9.10-9.70, ♀ 9.10-9.80 in. ; ♂ head, hind neck, rump, upper tail-coverts and tail blue grey, latter tipped with white and with broad subterminal black band ; rest of upper parts cinnamon rufous, unspotted ; greater wing-coverts and inner secondaries blue grey, shaded with rufous externally ; primaries dark brown ; throat whitish ; chest and breast pale cinnamon, marked with small black spots, larger on the flanks, abdomen and under tail-coverts yellowish white ; ♀ more like that of *C. t. tinnuncula*, but smaller and distinguished by its white claws.

- 307 *Cerchneis naumanni naumanni* Fleischer, *Sylvan*, 1817-18, p. 174 (1818). [*S. Germany and Switzerland.*]
Lesser Kestrel.

Mediterranean countries, from Spain to S. Russia, also N.W. Africa ; Asia Minor, Cyprus and S.W. Asia ; in winter to Africa ; cas. in Central Europe and Brit. Isles.

Size similar ; wing ♂ 9.6 in. ; darker above and below, and without spots below when adult, or with minute spots on sides when less mature ; wing-coverts almost entirely blue-grey, only innermost ones slightly washed with rufous.

- 307a. *Cerchneis naumanni pekinensis* Swinh., *P.Z.S.*, 1870, p. 442. [*Pekin.*]
Chinese Lesser Kestrel.

N. China ;
Himalayas?

Slightly smaller; wing ♂ 9 in.; above with red of mantle very much paler; below paler fawn colour and uniform without spots, except a few on sides in less mature birds.

- 307b. *Cerchneis naumanni turkestanicus* Zarudny, Mess. Orn., 1912, p. 114. [*Russian Turkestan.*] Turkestan; S. in winter to Somaliland.*

Length ad. 10-11, wing 7.50-8.00 in., tail 5-6 in.; head slaty, crown usually rufous; above rufous, more or less barred with black (according to age); tail with subterminal band of black and white tips; outer feathers more or less white, with one or more extra partial bands of black on inner webs (according to age); below buffish white, the chest pale cinnamon fawn, more or less finely spotted with black on sides of body (according to age). [Specific distinctions: crown generally rufous; chest washed with rufous; sides spotted.]†

* I have described this form from a presumed typical ♂ from Samarkand, May 1st, 1908, alt. 2,000 ft., D. Carruthers coll., in the Brit. Mus. coll. An example in the Brit. Mus. coll. from Somaliland, very pale and unspotted below, is as pale above as the Samarkand bird and is evidently referable to this form; the line of migration to N.E. Africa being a quite natural one. Examples from Central and S.E. Africa are however *C. n. naumanni*.

† Opinions differ greatly as to the specific and subspecific value of the American Kestrels, but I think it desirable to give specific rank to the typical race of each of the three groups of forms, and I have pointed out the principal characters on which I base these species. Some ornithologists appear to me to have failed to grasp the most important factors in determining the subspecies of these groups of forms, and to have attached undue importance to tail markings and the spotting of under parts, characters which vary with maturity and require to be considered with great caution. The spotting below is common to the less mature birds of all three groups, but disappears with age entirely in the *isabellina* group and varies in the other two, while the rufous on crown is likewise common to all three when immature, but disappears in the *isabellina* and *cinnamomina* groups, yet is usually retained in the *sparveria* group. The markings of the outer pair of tail feathers and the width of the subterminal tail band are most unreliable characters in themselves, as a series of old and young of both sexes in my collection from one district in Venezuela shows.

308. *Cerchneis sparveria sparveria* Linn., S.N., i., p. 90 (1758). [*"America,"* ex. Catesby = *Carolina.*] American Kestrel. United States, E. of Rocky Mtns.; S. in winter to Florida and Gulf States.

Smaller; wing ♂ 7.50, tail 5.25 in.; appreciably paler; tail relatively longer and paler; wing-coverts less spotted; rufous crown patch appreciably larger; below with larger, rounder and more numerous black spots; chest cinnamon fawn.

- 308a. *Cerchneis sparveria phalæna* (Lesson), *Echo du Monde Savant*, Ann. 12, June 19, p. 1086 (1845). [*Mexico.*] Western Kestrel. Western North America, from E. Brit. Columbia and W. Montana to N.W. Mexico; in winter S. to Mexico and Guatemala.

Smaller; wing ♂ 6.50, ♀ 6.75; paler; with rufous crown patch; subterminal tail band wide (25 mm.); below buffish white, well marked with black.

- 308b. *Cerchneis sparveria peninsularis* (Mearns), *Auk.*, ix., p. 267 (1892). [*Lower California.*] Lower Californian Kestrel. Southern Lower California.

Smaller; wing ♂ 7-7.50 in.; under parts nearly immaculate in old birds, the ground colour either cinnamon fawn or nearly white; throat white.

- 308c. *Cerchneis sparveria paulus* Howe and King, Florida, Contr. N. Amer. Orn., i., p. 28 (1902). Peninsula ; [Florida.] Bahama Florida Kestrel. Islands.?^{*}
- Size small ; wing ad. 6.9 in. ; above more heavily banded with black, the tail barred broadly with black even when mature, but bars obsolete on central feathers in some examples ; below creamy white, chest washed with fawn, with large black spots on breast and sides.
- 308d. *Cerchneis sparveria caribbæarum* Gmel., Lesser S.N., i., p. 284 (1788). [ex. Briss. "Antilles," type loc. sugg. *Dominica*.] Antillean Kestrel. (St. Lucia, Dominica, Guada-loupe, Antigua, Montserrat, Anguilla, Virgin Gorda, St. Thomas) to Porto Rico.†

Wing ♂ 6.80 in. ; head slate, usually without rufous on crown, and black bands on back nearly absent ; below white,‡ unspotted in oldest birds, or with a few black spots on sides in less mature ; inner webs of primaries white, the black bars nearly obsolete ; ♀ with bands above narrower than in typical form ; below much whiter, slightly streaked on sides of breast with pale brown.

* I am unable to say definitely what race inhabits the Bahama Islands, not having seen examples.

† I am unable to separate the Porto Rico race [*Cerchneis sparveria loquacula* Riley, Smith. Coll., xlvii., p. 284, 1904 ; *Vignes I.*] as so far as the scanty material available shows it is not distinguishable from *caribbæarum*.

‡ Almost dead white in Cuban birds, with scarcely any colour on chest, but two San Domingo examples seen have a strong cinnamon shade on chest ; as they show one or two spots on sides they are apparently younger birds.

- * 308e. *Cerchneis sparveria dominicensis* Gmel., S.N., i., p. 285 (1788). [*S. Domingo*]. S. Domingo and Cuba.
St. Domingo Kestrel.

Wing ♂ 7.25 ; tail 5.25 in. ; above darker than *C. s. phalæna*, especially tail ; back more heavily banded with black ; tail band slightly broader ; head darker slate, either without rufous, or with a small and indistinct nape patch ; below creamy white, including the chest, and much more heavily striped on chest and spotted on breast and sides with large black spots ; thighs and vent unspotted.

- 308f. *Cerchneis sparveria guatemalensis** subsp. nov. [♂ *Capetillo, Guatemala*, J. J. Rodriguez, in coll. H. Kirke Swann ; ♂ *Huehuetenango, Guatemala*, June, 1897, W. B. Richardson, in coll. Brit. Mus., Reg. No. 98, 12, 1, 91.] Central American Kestrel.
Central America : Guatemala, Brit. Honduras, Honduras, Nicaragua, Costa Rica ; Mexico (cas. ?).

Larger ; length ad. about 11 in. ; wing ♂ av. 7.80, tail 5.50 in. ; ♂ with no rufous on crown ; ♀ usually with partial crown patch ; ♂ tail with one narrow (av. 13 mm.) black subterminal band and white tips mixed with rufous ; the tips of central pair and inner webs of outer pair of feathers rufous ; below white, chest with decided tinge of fawn, and with large black rounded spots on sides ; ♀ with much narrower (almost linear) bands on

* The Central American form here designated is the resident form, and I have added a co-type in the Brit. Mus. coll. obtained in June as my own type is without date. It is true that North American migrants (principally of the western form, *phalæna*) occur commonly in Central America, but I regard the birds with heavily marked under-parts, little or no colour on chest, and little or no red on crown, as quite distinct and forming the resident race in Central America.

tail-coverts and tail, which is much paler ; below whiter with narrower and paler stripes [Specific distinctions : ♂ slate crown without rufous, pale chest, and spotted under parts ; ♀ narrower and more regular bars on tail-coverts and tail.]

309. *Cerchneis cinnamomina cinnamomina* Swains., Animals in Menag., p. 281 (1838). [Chile.]
Cinnamon Kestrel.
- Southern S. America : Chile ; Argentina (except N.E.)* ; S. Peru, W. of Andes (?) ; Patagonia to Straits of Magellan

Slightly smaller ; wing ♂ av. 7.10, tail 5 in. ; tail with the subterminal black band appreciably wider (av. 22 mm.) ; sides moderately spotted with black ; ♀ tail darker red, and with broader, straighter and more complete cross-bars, the subterminal one broader ; below with broader and darker brown stripes.

- 309a. *Cerchneis cinnamomina australis* Ridgw., Pr. Acad. Nat. Sci. Philad., 1870, p. 149. [Paraguay, type in U.S. Nat. Mus. ; new name for *Falco gracilis* (nec Lesson) Swains., Anim. in Menag., p. 281, 1838, Bahia, Braz., type in Brit. Mus.]
Brazilian Kestrel.
- Brazil, N. to Amazon River (?), S. to N. Argentina. E. to Paraguay and the eastern slopes of Andes in Bolivia and Peru.

* Line of demarcation in Paraguay, Bolivia and S. Peru uncertain.

Size similar ; wing ♂ 7-7.50 in. ; tail 5.25 ; ♀ wing 7.25-7.5 in. ; ♂ head much darker, blackish slate ; above darker rufous ; tail band 18-22 mm. (central widest, northern and southern narrowest) ; below much deeper cinnamon ; spots on sides fewer (except in less mature birds) ; ♀ above (including tail) and below much darker cinnamon rufous ; wing quills washed with rufous on inner webs, the black bars much narrower and white interspaces 6 mm. wide ; tail bands narrow and regular as in *C. s. cinnamomina*, but underside much less white and bars appearing much narrower, with no black terminal band.

- 309b. *Cerchneis cinnamomina equatorialis* Mearns, Ecuador.
 Auk., 1892, p. 269. [♂ "Guayaquil," errore N. to West
 =interior of Equadôr, type No. 101, 309 in Colombia
 coll. •U.S. Nat. Mus.] (W. slope
 of central
 and
 northern
 Andes).
 [*C. c. caucæ* Chapm. and *C. c. andina*
 Cory, synonyms.]*
 Andean Kestrel.

Slightly larger ; wing ♂ 7.50 in. ; more deeply coloured and more heavily marked ; vent and under tail-coverts clear buff ;

* I think that the absence of exact locality for Mearns's type cannot be held to disqualify his name, as it seems certain the example came from some part of Ecuador, and I accept "interior of Ecuador" as a sufficient locality, since I am unable to distinguish four (?) separate races for Ecuador as set forth by Cory (Field Mus. Pub. Orn., Ser. i., pp. 319-23). *C. c. caucæ* appears to me to be a northern extension of this dark form, reducing in size slightly ; *C. c. andina* appears to rest on the largest and darkest birds, with fewest spots on sides, and presumably the most mature, judging by the description and by presumed examples I have seen. His *C. c. peruviana*, being the paler southern examples, is in my opinion untenable, as most Peruvian birds can be referred either to *cinnamomina* or *australis*. There are only two groups of forms in South America, the larger *cinnamomina* and the smaller *isabellina*. If a bird is of fair size and has spotted sides when quite adult it must belong to the former, and if small, with unspotted sides when adult, it must belong to the latter. To treat both as forms of *sparveria*, as Cory does, is confusing. It cannot be too strongly emphasised that the spotting in the *isabellina* group is immaturity ; in *cinnamomina* it remains in the adult, but must vary as we get away from the typical race. *Andina* by its size appears to belong to the *cinnamomina* group, and according to Cory's description the spots are not entirely absent.

spots below larger and more numerous ;
 ♀ under parts (except throat) much deeper,
 in some specimens dull rufous, obscurely
 streaked and spotted with blackish ; vent
 and thighs clear buff.

- 309c. *Cerchneis cinnamomina fernandensis* Juan
 Chapm., Bull. Am. Mus. N.H., xxxiv.,
 p. 379 (1915). [*Masatierra I., Juan Fer-*
nandez Is., type in Am. Mus. N.H.]
 Juan Fernandez Kestrel.

Juan
 Fernandez
 Islands,
 off Chile.

Smaller and paler ; ♂ length 9.50 ; wing 7 ;
 tail 5 in. ; head and nape bluish slate,
 without rufous when fully ad. ; above ru-
 fous, with only one or two small specks of
 black ; wing-coverts slate blue, slightly
 spotted with black ; primaries with black
 bars more or less obsolete, not extending
 across webs ; tail with black subterminal
 band 15-25 mm. wide, and white tips ;
 outer web of outer feather white, inner
 rufous ; below light pinkish cinnamon,
 unspotted (except in less mature birds) ;
 thighs and vent white ; ♀ below isabelline,
 with a few fine streaks and spots of pale
 brown on chest and sides of breast ; nape
 often with rufous patch or tinge. [Specific
 distinctions : small size, slate crown, and
 unspotted under parts.]

310. *Cerchneis isabellina isabellina* Swains.,
 Anim. in Menag., p. 281 (1838). [*Demarara,*
type in Brit. Mus.]
 Isabelline Kestrel.

Guiana
 and E.
 Venezuela
 (E. to
 Caracas,
 S. to Rio
 Branco,
 N. Brazil).

Length ♂ 9 in. ; wing 7-7.25 ; tail 5 in. ;
 ♀ wing 7.50-7.70, tail 5.25 in. ; ♂ above
 darker rufous, with only a few black spots
 and bars ; head blackish slate with no
 rufous patch when adult ; primaries

barred right across inner webs ; tail with broader black subterminal band (25-30 mm.) ; below decided rufous cinnamon, unspotted in ad. (less mature with a few black spots on sides) ; ♀ and juv. ♂ isabelline rufous below with dark brown streaks and spots ; crown with more or less rufous.

- 310a. *Cerchneis isabellina ochracea* Cory, Field Mus. Pub. Orn. Ser., i., p. 298 (1915). [Colon, Tachira, W. Venez., type in Field Mus.]
Venezuelan Kestrel.
- Venezuela,
(Merida,
Colon,
Valle,
Ohama,
Montana de
la Sierra,
Cutata,
Margarita
I.) ; N.E.
Colombia ;
Andes
region of
Colombia.*

Wing shorter ; ♂ av. 6.50, ♀ 6.90 in. ; similar to last form but with a greater tendency to banding above and to heavy black spotting below in less mature birds ; ad. ♂ below isabelline rufous unspotted ; tail band av. 25 mm. [Barely separable form.]

- 310b. *Cerchneis isabellina brevipennis* Berl., J.f.O. 1892, p. 91. [Curacao.]
Curacao Kestrel.
- Curacao,
Bonaire,
Aruba Is.,
off
Venezuela.

* *C. i. intermedia* Cory (Field Mus. N. H. Orn., i., p. 325 (1915), seems to be non-separable. The average wing of his examples is the same as the measurement of his type of *ochracea* ; the narrower band on the tail seems scarcely a reliable distinction, while the white spotting on outer webs of primaries is a very variable character. *C. i. margaritensis* Cory (T. c., p. 297), I am also unable to distinguish, as examples with the paler under parts occur in the Merida district along with the darker birds. His *C. i. perplexa* (t. c., p. 327) I am unable to distinguish, dark and pale-breasted birds occurring together as I have before pointed out ; while *C. i. distincta* (t. c., p. 297) is most certainly typical *isabellina*, the principal character, the obsolete bars on inner webs of primaries, being present in Brit. Guiana examples.

Wing ♂ 7.7-7.25, ♀ 7.40-7.55 in. ; head, neck, back and wing-coverts slaty blue ; with a tinge of rufous on interscapular region ; rump, upper tail-coverts and tail deep bay, the tail tipped with white and with a broad subterminal bar of black ; throat and sides of face whitish ; below chestnut-fawn, paler on vent, and shaded with greyish on flanks, with one or two spots of black.

311. *Cerchneis sparverioides* Vig., Zool. Jnl., iii., p. 436 (1828). [*Cuba*]. Cuba ; cas. Florida ?
Cuban Kestrel.

Gen. LXXXVII. DISSODECTES Sclat. (1864).

With the characters of *Cerchneis* but with a more or less constant double-toothed mandible, and plumage not rufescent.

Wing ♂ 8.9 ; general plumage slaty grey (paler below) with dark shaft-lines to the feathers ; tail with whitish bands on inner webs ; throat and sides of face whitish.

312. *Dissodectes ardosiacus* Bonn. et Viell., Enc. Meth., iii., p. 1238 (1823). [*Senegal*]. W. Africa (Senegambia to Angola) ; N.E. Africa, Equatorial Africa.
Slate-coloured Kestrel.

Smaller ; wing ♂ 8.3 ; head and neck whitish ashy, with distinct blackish shaft-stripes ; rest of upper parts blackish brown, the primaries darker and banded on inner webs with white ; rump and upper tail-coverts white, shaded with grey ; tail greyish white, banded with black, the subterminal band broad ; throat whitish ; under parts ashy brown.

313. *Dissodectes dickinsoni* Sclat., P.Z.S.; 1864, Zambesi
p. 248. [*Shiré River.*] River,
Dickinson's Kestrel. Nyasaland,
Angola.
- Wing ♂ 8.75, ♀ 9.1 in. ; above ashy grey
with black shaft-stripes, paler and bluer
grey on rump and upper tail-coverts ;
scapulars and wing-coverts barred with
greyish black ; primaries blackish, barred
with rufous or whitish on inner webs ; tail
black, all but the 2 central feathers barred
with greyish white ; forehead and throat
whitish, streaked on throat and barred
below with ashy brown.
314. *Dissodectes zoniventris* (Peters), Sitz. k. Mada-
Pr. Akad. Wiss. Berl., 1853, p. 7. [*Mada- gascar.*]
Madagascar Grey Kestrel.

Sub. Order III. *PANDIONES.*

Gen. LXXXVIII. *PANDION* Savigny (1809)

Plumage very close and compact, wanting the
accessory plumule ; no facial disk ; eyes placed
laterally in the head ; nostrils generally not con-
cealed by bristles ; tarsus reticulated ; toes
devoid of feathers, the under surface rough,
covered with small pointed scales ; the outer
toe reversible.

Size large ; length ad. about 24 in. ; wing
19-20.90 in. ; head white, the crown
striped with blackish brown ; nape feath-
ers elongated and lanceolate ; ear-coverts
and stripe through eye blackish brown ;
above dark brown, with paler margins to
most of feathers ; tail dark brown, inner
webs barred with dark brown and whitish ;
below white, the breast varied with pale
brown centres to the feathers ; bill black ;
feet blue.

315. *Pandion haliaëtus haliaëtus* (Linn.), S.N., Europe, from Lapland (and formerly Scotland) to the Mediterranean and Coasts of N. Africa and Red Sea ; S. Arabia ; N. Asia to Japan and Kamtschatka.

Size similar ; dark markings of head blacker ; above darker and richer brown ; less marked on under side.

- 315a. *Pandion haliaëtus carolinensis* Gmel., S.N., N. America N. to Newfoundland and Alaska; S. in winter to Central America ; S. America. S. to Peru and Paraguay.

Similar to typical race, but smaller ; wing ad. 16.50-18.25 in. ; head much whiter ; feet bluish white.

- 315b. *Pandion haliaëtus cristatus* (Vieill.), N.D., Australia ; Tasmania ; Moluccas ; New Guinea ; Philippines ; Sunda Is.

[Not seen]. Smaller.?

- 315c. *Pandion haliaëtus microhaliaëtus* Brasil, New
Rev. Franc. Orn., 1916, p. 201. [*New Caledonia.*
Caledonia.]

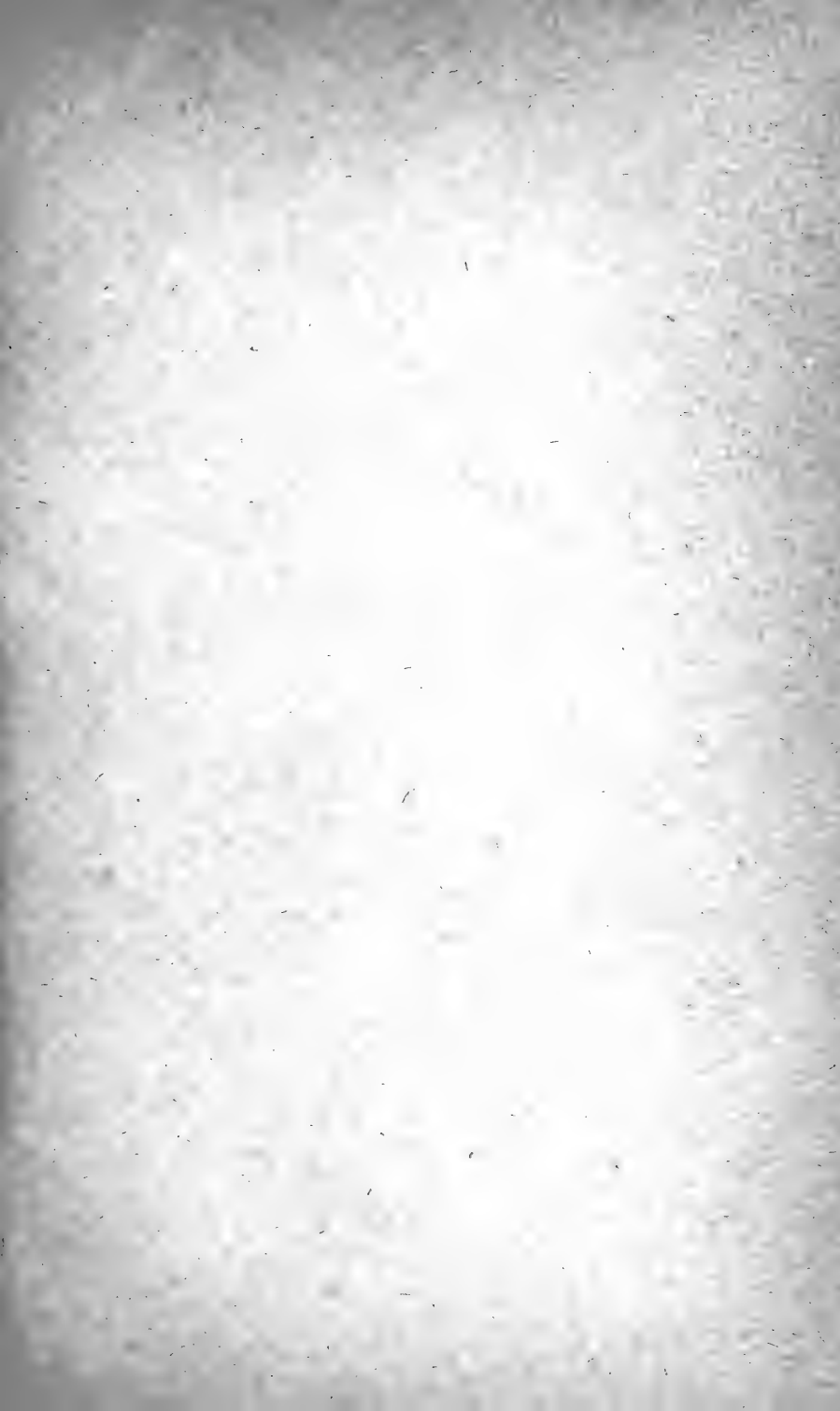
Gen. LXXXIX. POLIOAETUS Kaup (1850).

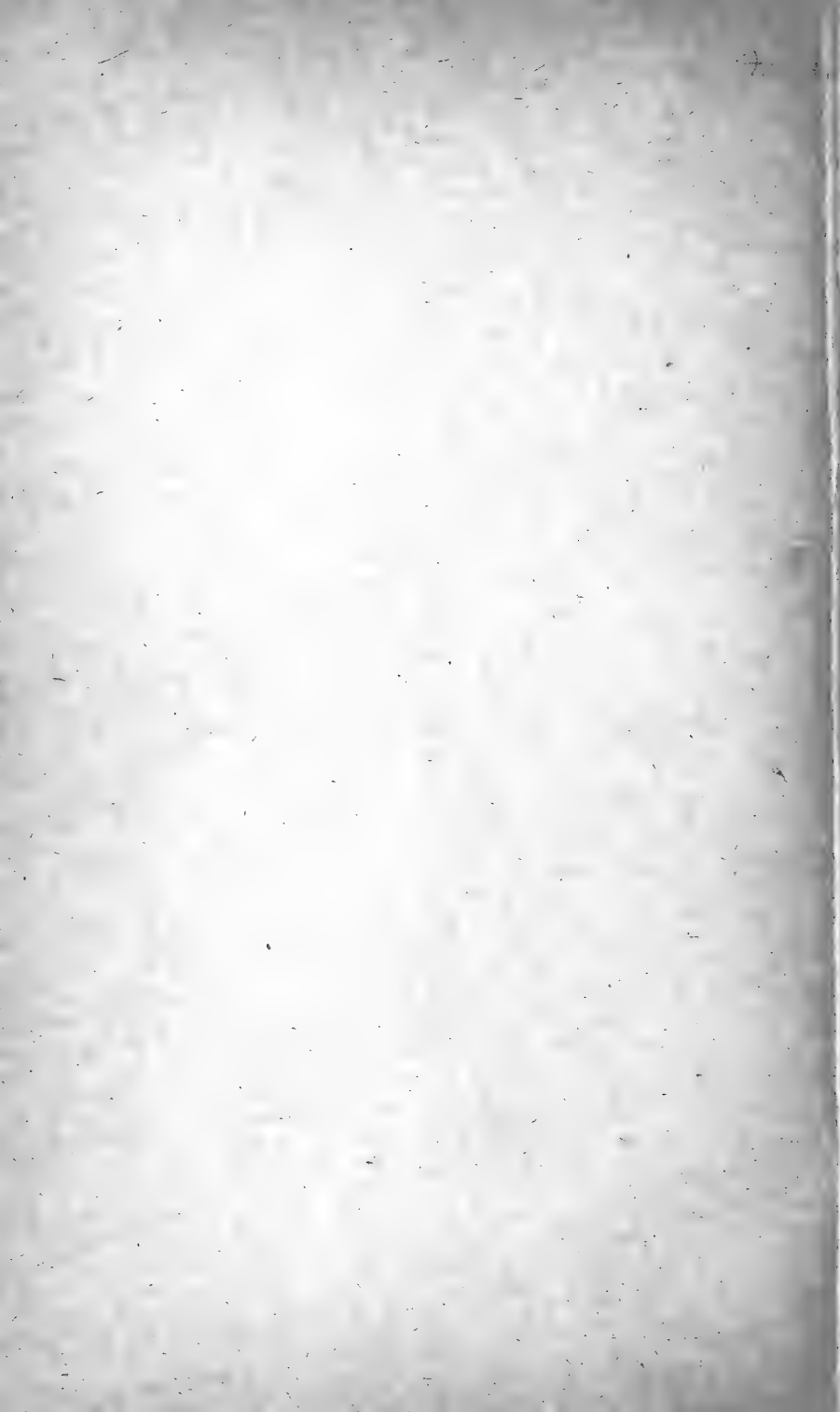
Wing ♂ 18, ♀ 20.4 in.; above brown, darker on wings, the primaries blackish; head and neck all round ashy grey; tail white, with broad terminal bar of brown; breast brown; belly white; under side of wing leaden brown, with a white spot at base of primaries; feet yellowish white.

316. *Polioaëtus ichthyaëtus ichthyaëtus* Horsf., Indian
Tr. Linn. Soc., xiii., p. 136 (1822). [*Java.*] Peninsula;
White-tailed Fishing Eagle. Ceylon;
Burma;
Peninsula
Malay
and
Archipel.

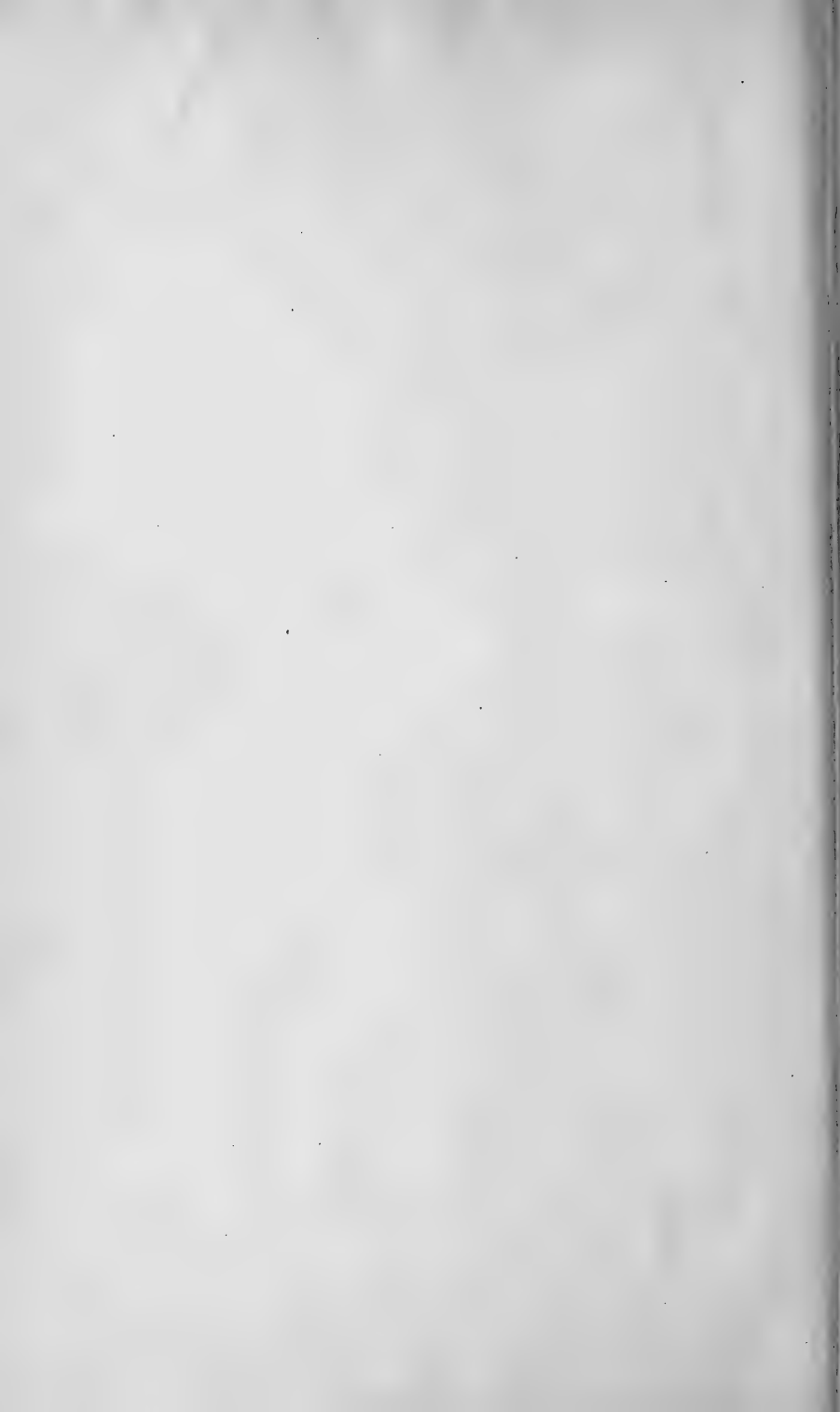
Smaller; wing ♀ 16.2 in.; above ashy brown, back and wings darker; tail pale brown at base, blackish brown subterminally, the tip white; throat, breast and under wing-coverts ashy brown; belly white; feet bluish white.

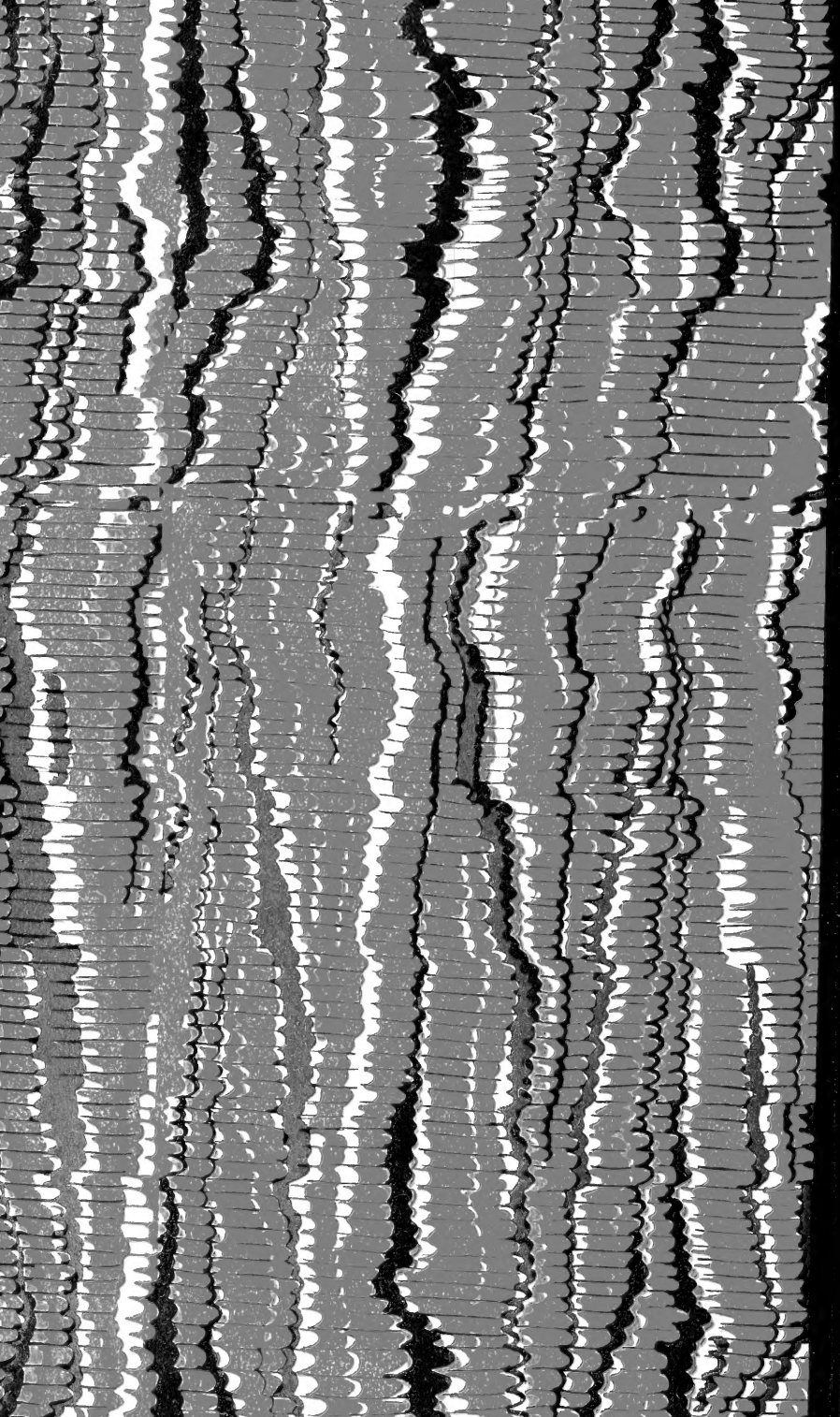
- 316a. *Polioaëtus ichthyaëtus humilis* Müll. and Burma;
Schl. Nat. Gesch. Zool. Aves, p. 47, pl. 6 Malay
(1839-44). [*Sumatra.*] Peninsula;
Malayan Fishing Eagle. Sumatra;
Borneo;
Java;
Celebes.

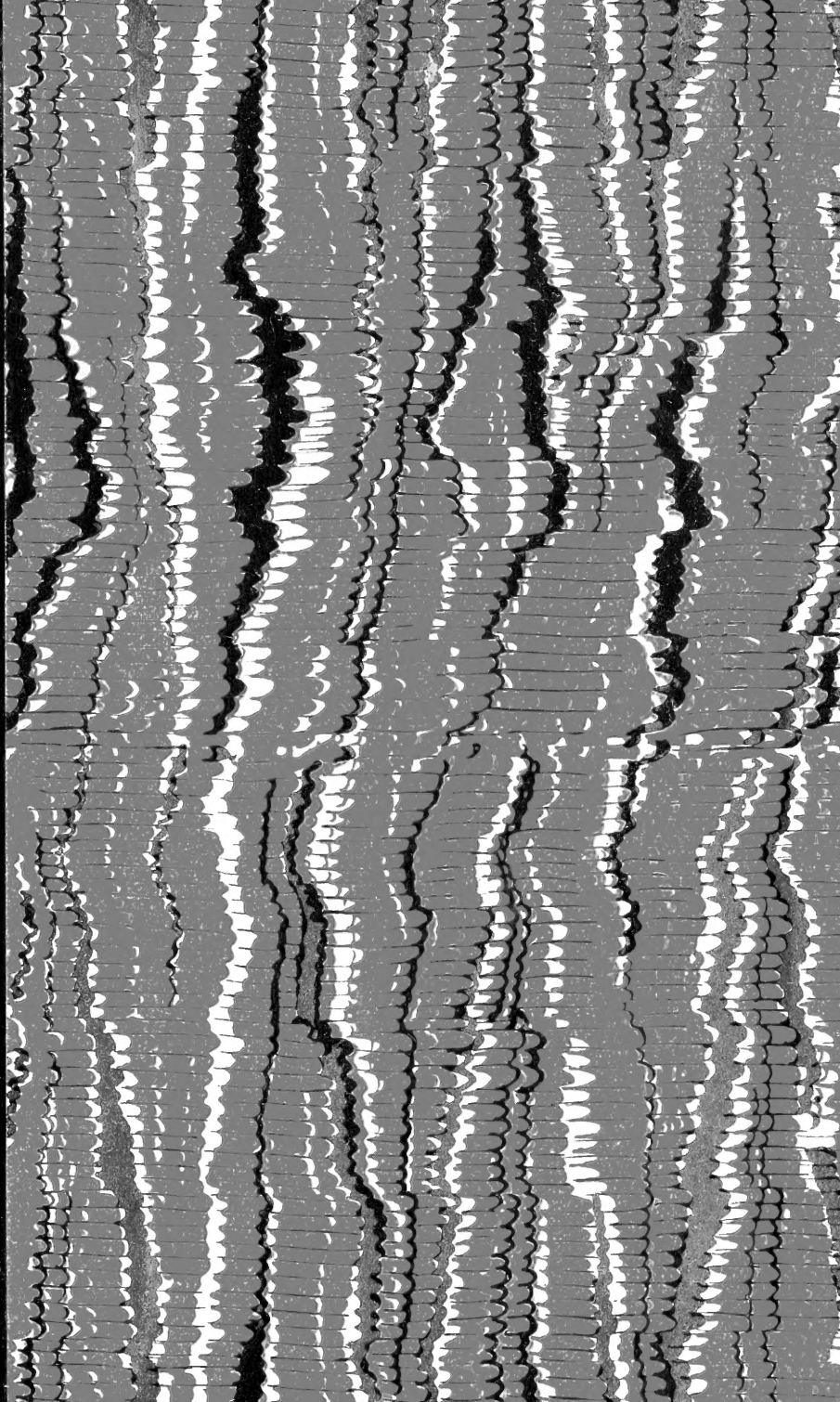












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