

AFRICAN ZOOLOGY:

By DR. SMITH.

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Aquila coronata. Crested, crest white with some brown variegation towards shafts of feathers; head, neck, breast, belly, under tail coverts, and legs, white, the latter blotched particularly on outer-sides with black-brown. Back of the neck faintly spotted in some specimens with brown, and the under tail coverts obscurely banded with the same colour; back brown-grey, the feathers margined with white; upper tail coverts white, broadly banded with brownish black; shoulders dull brown, all the feathers margined with white and most of them blackish towards shafts; scapulars grey-brown, margined with white. Primary wing coverts black, margined with white; primary quill feathers dull brown, banded with black, the tips black; secondary quill feathers dusky grey, banded with black, tips white; the inner surfaces of wings principally white. Tail black with three or four hoary grey bands, tips of all the feathers white. Bill black, base of lower mandible yellow; toes yellow; claws black. Length of male thirty-three inches, of female thirty-seven inches.

Young.—Above black clouded with brown; upper tail coverts tip with white; beneath variegated freely with pale rufous, in somewhat transverse bands on breast and belly; legs white, closely spotted with black; tail black, with two broad hoary bands, and the tips of feathers tawny white. Crest black, the feathers tawny towards quills.

Inhabits South Africa and Guinea.

Crowned Eagle, Edwards, *pl.* 224.

Obs. This species has generally been confounded with the last; it is, however, perfectly distinct. In the *Bellicosa* the wings are longer, the tail has a much greater number of bands, and no crest exists either in young or old specimens. In the present species the head is much smaller and rounder than in the last, the base of the lower mandible is, at all ages, of a yellow colour; and when the wings are folded the points of the primary feathers scarcely reach beyond those of the secondaries.

GENUS HALIAETUS. *Savigny.*

Bill strong, convex above and hooked at the point; nostrils lunated, transverse; cere hairy; tarsi half-feathered, scutellated before, reticulated behind; tail rounded or cuneiform.

Haliaëtus blagrus. Bill brownish; eyes deep brown; head, neck, breast, belly, and thighs, satin white, with the feathers of the head and back of the neck edged with brown. Scapulars and secondary wing coverts light greyish brown; tail the same, with the exception of the tip which is white. Primary wing

feathers blackish; outer vanes of secondaries like the scapulars; legs and feet yellowish; claws black. Length about two feet.

Inhabits South Africa,—very rare.

Falco blagrus, Shaw, *Zool. Le Blagre, Le Vaill. Afriq. pl. 5.*

• *Haliaëtus vocifer*. Bill black; cere, and space between it and eyes yellow, and thinly covered with black hair; “eyes reddish brown.” Head, neck, interscapulars, anterior part of back, and breast, pure white; the feathers of the head, back of neck, and interscapulars, with their shafts, brownish red; belly and thighs deep chesnut. Primary and secondary wing coverts, as well as primary and secondary wing feathers, deep shining black; tail slightly rounded, and pure white; legs and toes deep yellow; claws black. Length from bill to root of tail twenty-five inches; length of latter eight inches.

Young.—Brown above, white beneath, variegated more or less with longitudinal brownish black stripes or blotches.

Inhabits South Africa,—along the coasts and near the mouths of rivers.

Falco vocifer, Shaw. *Le Vocifer, Le Vaill. pl. 4.*

• GENUS HELOTARSUS. *Smith.*

Bill robust, compressed, curved from the base, and strongly hooked; cere smooth; lores hairy; nostrils semilunar, vertical. Tarsi robust, short, covered with feathers below the joint, the bare portion with rough elevated scales; toes scutellated towards claws. Tail even, and shorter than the wings; second quill feather the longest. Form robust.

• *Helotarsus typicus*. Tip of bill black; base and the cere orange; eyes deep red; head, neck, and under parts, clear black; interscapulars, back, and tail, clear deep chesnut; shoulders greyish brown; primary and secondary wing coverts black; primary wing feathers with both vanes grey, and the inner ones edged near quills with white; secondaries cinerous grey, with the inner vanes edged with white; and each feather broadly tipped with fine shining black; scapulars black; tail slightly rounded, and the wings, when folded, about three inches longer than it. Tarsi reddish, more or less inclined to orange; toes similarly coloured; claws black. Length from bill to base of tail seventeen inches; length of latter five inches and a half.

Young.—Cere bluish; bill horn-coloured; feet and tarsi yellowish; plumage brown, lightest on the head and neck, most of the feathers with the edges and tips of a fainter hue; primary and secondary wing feathers blackish, tinged with grey; tail blackish brown; claws black.

Inhabits South Africa and Senegal.

Falco caudatus, Shaw, *Zool.* *Terathopius caudatus*, Lesson. *Le Bateleur*, Le Vaill. *pl.* 7 & 8.

Genus CIRCAETUS. Vieillot.

Bill strong, straight at the base, convex, compressed, and hooked at the point, edges nearly straight; cere hairy; nostrils roundish; tarsi moderate, elongated, naked, and reticulated; toes short; wings as long as the tail; the latter graduated, cuneiform, and consisting of twelve feathers.

· *Circaetus cinereus*, Vieill. General colour dull grey, verging in some places to rufous. Primary quill feathers black; tail above, brown with five white transverse bands; beneath, grey with the same number of pure white bands; tarsi and toes yellowish black. Length nearly twenty-two inches.

Inhabits Senegal.

· *Circaetus thoracicus*, Cuv. Bill dark horn-coloured; eyes fine yellow; head, together with the back and sides of neck, blackish brown, the former often with a slight tinge of grey; interscapulars, back, tail coverts, and shoulders, blackish brown, each feather more or less distinctly tipped with a dusky or pure white; throat variegated black and white; breast pure black or brownish black; belly, under tail coverts, and thighs, pure white. Primary quill feathers black, with the exception of the greater portion of the inner vane of each, towards its base, which is white; secondaries marked by transverse black and greyish, or greyish white bands, and distinctly tipped with white. Tail nearly even and composed of twelve feathers, each of which has, or may be said to have, white, or grey and white as the ground colour, and is crossed more or less completely by three broad black bands. When the two colours first mentioned occur in the same specimen, the grey occupies only the outer vanes towards the tips, and sometimes a little of the inner ones near the shafts, whilst the white appears in all other situations. When viewed below the whole ground colour appears a pure white, and the three transverse bands a dusky black. Legs and toes livid white, with a tint of greenish; claws black. Length from bill to base of tail fourteen inches; length of tail nine inches and a half.

Young.—Dull earthy brown; second year, brownish above, and white mottled with black blotches beneath; throat and anterior portion of breast black.

Inhabits South Africa.

Circaetus pectoralis, Smith. *South African Quarterly Journal*, vol. i.

• *Circætus Bacha*. Head above black; hindhead with a transverse crest, the feathers white towards their bases, elsewhere black: back dull earthy brown; upper tail coverts sprinkled with white spots: shoulders blackish brown, sprinkled with white spots; quill feathers black, tipped with white, the primaries with a broad band of greyish brown towards points, the inner vanes towards quills white, undulated with black. Sides of neck, and throat, brown or brown-black; under parts dull brown, freely mottled with white spots; under tail coverts brown, banded with white. Tail rounded, black, and crossed towards point by a broad grey-white band clouded with dusky; all the feathers finely tipped with white. Bill lead-coloured; lower mandible towards base, and the naked space round eyes, yellow. Tarsi and toes yellowish; claws black. Eyes deep brown-red. Length of the male twenty-three inches, of the female twenty-eight inches.

Inhabits South Africa, Java, and India.

Falco Bacha, Daud. *Orn.* Le Bacha, Le Vaill. *pl.* 15.

Obs. When I classed this bird some time ago in the genus *Cymindis*, I had not an opportunity of examining its characters, but was guided entirely by the example of Mr. Stephens. Since that I have met with several specimens, and have satisfied myself that it is closely allied to the *Circæti*, and more entitled to be ranked in that genus than in *Buteo*. The reticulated tarsi and its general form bespeak the affinity.

GENUS MORPHNUS. Cuvier.

Bill large, almost straight, convex above and curved at the point; nostrils elliptical; tarsi slender, long, naked, and scutellated, or covered to the toes; wings shorter than the tail; fourth quill feather the longest.

• *Morphnus albescens*. Bill lead-coloured; eyes fine yellow; head with a small crest; the whole plumage white, clouded with blackish brown upon the mantle, and soft to the touch. Tail rayed transversely black and white; primary wing feathers with the outer vanes brownish, and the inner ones rayed; claws a leaden colour. Length about two feet six or eight inches.

Young.—Brown more abundant in the plumage; all the shoulder feathers edged with rufous.

Inhabits South Africa,—Antenaqualand.

Falco albescens, Shaw, *Zool.* vol. vii. *p.* 93. Le Blanchard, Le Vaill. *Ois. Afriq.* *pl.* 3.

• *Morphnus occipitalis*. Above blackish brown, inclining to black, in old individuals; below the same colour, only of a darker tint; head and crest blacker than the other parts; the latter composed of several feathers, most of them of different lengths, the longest between five and six inches. Primary and

secondary wing coverts blackish brown, with more or less of the inner vane of each feather white; primary wing feathers white towards quills, blackish brown elsewhere; in the outermost ones the white occurs only upon the inner vanes, in the next to them it occupies both vanes, and in the still more internal, the white is crossed by black bands; outer vanes of secondaries an uniform dusky brown, inner ones brown and dusky or pure white in alternate transverse bands. Tail slightly rounded, each feather marked with white; greyish white, or reddish white and black alternate bands; the number of the first description is usually three, besides some irregular ones or only spots towards quills; the bands seldom extend completely across, but have the extremities on each side commonly margined with the same black as the other bands, and between the last light-coloured one, and the tip nearly two inches of uniform black; bill and claws black; cere and toes yellowish. Length from bill to base of tail nineteen inches; length of latter nine inches.

Young.—Plumage brown, feathers margined with rufous.

Inhabits Africa.

Falco occipitalis, Daudin, *Ois.* ii. p. 40. Shaw, vii. p. 59. Nisser Tokoor, Bruce. Le Huppard, Le Vaill. *Ois. Afr.* pl. 2. Kuifkop Valk of the Colonists.

· Genus POLYBOROIDES. *Smith.**

Bill compressed particularly towards culmen, slightly arched from base, moderately hooked at the point; nostrils longitudinal, linear; cere smooth; sides of head to some distance behind eyes bare. Tarsi long, slender, laterally compressed and reticulated; toes long and slender, the middle one connected to the outer by a slight web at base; claws long, slender, and much curved. Wings nearly as long as tail; the fourth and fifth feathers the longest.

· *Polyboroides typicus*, Smith. ♂ Head, neck, and breast, dark blue-grey; back scapulars and shoulders light grey, variegated with very fine undulating dull white lines; hinder portion of back, upper and under tail coverts, belly, thighs, and insides of shoulders, white, with fine transverse black lines; interscapulars, each with a black blotch near its point. Primary wing coverts dark grey tipped with white, and with a broad black band near the point. Primary wing feathers black, the outer vanes towards quills grey, the inner ones white, undulated with black, tips white. Tail dark green-black, crossed by a distinct broad white band, finely undulated with black near the extremity, and by some irregular ones toward the base; the tips of all the

* South African Quarterly Journal, March 1830.

feathers white. Bill dark horn-coloured; cere and base of lower mandible yellow; tarsi and toes yellow-brown; claws black. Length two feet four inches.

Inhabits South Africa and Madagascar.

Falco gymnogynys, Temm, *pl.* 307. Gymnogynys Madagascariensis, Lesson.

Obs. Two specimens from Madagascar which I have examined, differed only from the South African one in my possession, by being smaller and of a lighter colour. They were probably male birds, and mine is a female.

FAM. ACCIPITRINA.

Bill convex, curved from the base, hooked, upper mandible with a more or less distinct festoon on its edge, lower mandible shorter and obtuse; nostrils almost oval; tarsi nearly or completely naked, slender; claws large, very sharp; wings shorter than the tail, fourth quill feather the longest.

Genus ACCIPITER. *Ray.*

Tarsi generally slender, scutellated; body slender; claw of inner toe very strong; nostrils rounded, transverse; wings extend a little beyond the base of tail, the latter rounded, graduated or slightly forked.

• *Accipiter monogrammicus*, Lesson. Ashy grey; throat white with a longitudinal black line; belly finely striated with brown; tarsi and cere reddish.

Inhabits Senegal.

Falco monogrammicus, Temm. *pl. col.* 314.

• *Accipiter polyzonus*, Lesson. Bill and cere brown, the base of the lower mandible, and the festoon of upper, yellowish; a narrow space round eyes naked; plumage above an uniform ashy brown; throat whitish, finely rayed transversely with brown; anterior part of neck, breast, and belly, dull white, regularly rayed with transverse brown or pale rufous bars; vent and under tail coverts white, with some fine transverse brown lines; wing feathers light brown, banded with dark brown; inner vanes marked with white towards quills. Tail long, even or slightly forked, beneath ash-white with transverse brown bands, above brown with darker transverse bands, and the inner vanes of central feathers with two or three narrow white bars; the tips of all the feathers white. Tarsi long, and with the toes yellow; claws black. Length sixteen inches and a half.

Inhabits South Africa.

Falco polyzonos. Temm.

Accipiter niger. (Black Sparrow Hawk.) Colour a fine black; the feathers of nape and upper part of neck white at their bases; tail feathers above, each, tinted with three white spots, and beneath, with four pure white spots, which form transverse bands when the tail is spread; the first band towards the root, the next on the second-third of the tail, and the last a little distance from the extremity. Primary quill feathers grey-white with some small black spots variegated with ashy; secondaries black; eyes yellow; cere and feet orange. Length nine inches.

Inhabits Senegal,—very rare.

Accipiter Gabar. Bill dark horn-coloured; cere deep red; eyes light crimson; head, neck, interseapular, back, and shoulders, dirty brownish or reddish grey; chin, throat, sides of neck, and breast, light bluish grey or pale slate colour; belly and thighs banded lightish black and clear white. Primary quill feathers nearly a uniform dark brown on the outer vanes, whilst the inner ones are marked by alternate bands of blackish brown and dirty light white. Tail slightly rounded, feathers brownish black, crossed by three transverse bands, which appear when viewed above, of a pale dusky white or greyish white, and when seen below, of a pure white; the tips of all pure white; legs and toes red; claws horn-coloured. Length from bill to base of tail six inches; length of latter six inches and a quarter.

Young.—Bill nearly as in mature specimens; cere and eyes yellow; head and neck variegated blackish brown and rufous, the latter most abundant on the sides of the last named part; interseapulars and back an uniform dark brown, with the exception of some very slight variegations, occasioned by many of the feathers being indistinctly tipped with rufous; shoulder feathers dark brown, tipped and edged more broadly with light rufous; tail coverts white. Chin, throat, and breast, light rufous, more or less variegated by longitudinal stripes of dark brown or blackish brown; belly and thighs marked by alternate narrow bands of dirty black and pale rufous; primary and secondary quill feathers nearly as in old specimens; tail blackish brown, crossed by four white bands, besides each feather having a white tip and some spots of a like colour near quill; legs and toes yellow; claws horn-coloured.

Inhabits South Africa and Senegal.

Falco Gabar, Dand. Le Gabar, Le Vaill. pl. 33.

Accipiter Tachiro. Bill bluish black, with a small yellowish spot on the edge of the tooth of the upper mandible, and another opposite to it, on base of lower; cere yellow; upper

parts dull brown ; the feathers of nape all white towards quills ; chin and throat pure white ; sides of neck white, with narrow transverse brown bands ; breast and belly white, banded transversely with brown, the bands few towards the middle, but numerous on the sides ; under tail coverts white, irregularly crossed by a few narrow brownish lines ; thighs tawny white, with broadish transverse brown bands. Primary wing feathers brown, banded on the inner vanes by black towards their tips, and by black and nearly clear white towards quills ; secondaries the same as primaries, with the exception of the white being more abundant on the inner vanes. Tail slightly rounded, of a light brown colour, and crossed by four broad blackish bands, the tips of all the feathers more or less white ; legs and toes yellow ; claws black. Length fourteen inches and a half ; the female nineteen inches and a half.

Young.—Above brown, feathers edged and tipped with rufous ; throat white, with a longitudinal black stripe ; under parts white with longitudinal black blotches.

Inhabits South Africa.

Le Tachiro, Le Vaill. *Ois d' Afriq. pl. 29.*

Accipiter Francesii. Head and hinder part of neck blue-grey ; back and shoulders dark slate-colour ; sides of neck light blue-grey ; under parts and insides of shoulders pure white ; wing feathers brownish black, inner vanes near quills white with narrow transverse black bands. Tail, above a dark slate colour with a greenish tinge, the lateral feathers of a lighter tint with their inner vanes tinged brown, beneath white, more or fewer of the feathers with five or six transverse black bands on the inner vanes, the outer feather of each side with the bands scarcely perceptible, the tips a dull white. Upper mandible horn-coloured, lightest towards the point ; under mandible yellow ; legs and toes yellow ; claws black. Length from bill to tip of tail eleven inches.

Inhabits Madagascar.

To Lady Frances Cole I am indebted for the only specimen I possess of this apparently undescribed species,—and the name it bears in the South African Museum is an indication of the high respect entertained for Her Ladyship as a well known and zealous Patroness of Science.

Accipiter musicus. Head, neck, and breast, light bluish grey ; back and scapulars dark slate-colour ; upper tail coverts white ; shoulders silvery grey, finely mottled with black. Primary wing coverts hoary, inclined to greyish black ; secondary coverts white, mottled with narrow tortuous black lines. Primary wing feathers brownish black, variegated on inner vanes towards quills with lines or streaks of white ; secondaries pure

white, here and there dotted or finely streaked with black; belly, thighs, and under tail coverts, finely banded black and white. Tail slightly rounded, the two centre feathers blackish grey, the rest blackish, or blackish grey and white in different proportions, the latter particularly abundant in the two outermost ones of each side, all, with the exception of the two middle ones, broadly tipped with white. Upper and lower mandibles at base orange-coloured, elsewhere black. Cere, tarsi, and toes, red; claws black. Length twenty inches.

Young.—Bill blackish, with a little of the base of each mandible yellow; cere greenish yellow; eyes greyish yellow, inclined to pure yellow; head, neck, and back, brown, the feathers of the two former white towards quills; tail coverts white, with a triangular brown spot near the tip of each; shoulders brown, with the feathers edged and tipped with reddish white; belly, thighs, and under tail coverts, marked with alternate broad irregular brown and white bands. Primary wing coverts brown, tipped with white; primary wing feathers reddish brown, banded with black, the outer vanes tinted with grey; secondaries bluish grey, banded with black, and tipped with white; tail with reddish grey and blackish brown transverse bands, the former four in number; legs and toes somewhat flesh-coloured; claws black.

Inhabits Africa,—common in South Africa.

Falco Musiens, Daud. *Orn.* p. 116. Le Faucon chanteur, Le Vaill. *pl.* 27. Blaauwe Valk of the Cape Colonists.

• *Accipiter rufiventris*, Lath. Head, upper part of neck, back, and upper tail coverts, blue-grey or ashy brown; sides of neck, throat, breast, anterior parts of belly and thighs, light rufous; hinder part of belly, vent, and under tail coverts, pure white. Wing feathers dirty brown, the inner vanes banded with black and blotched towards quills with white. Tail above brown-black with four brownish grey transverse bands, beneath white with dark brown bands; tips of all the feathers white. Bill black, the festoon and base of lower mandible yellow; legs, toes, and cere, yellow; claws black. Length of male ten inches, of female fourteen inches.

Young.—Above brown, the feathers of head, neck, and shoulders, margined with rufous; beneath light rufous or rufous-white, variegated with slender longitudinal streaks.

Inhabits South Africa.

• *Accipiter minullus*, Lath. Head, neck, and back, a dark slate colour; upper tail coverts white, spotted or banded with black. Chin and throat white, finely mottled or indistinctly rayed with black; sides of breast and belly rufous, middle of

breast and anterior part of belly, pure white, all rayed transversely with narrow brown-black bands; hinder parts of belly and under tail coverts pure white. Primary wing feathers brownish, the inner vanes with transverse dusky black bands; secondaries brownish, inner vanes edged with white and crossed by black bands. Tail slightly rounded, the outer vanes of feathers brown-black, spotted or irregularly banded with reddish brown; inner vanes black, and partially crossed in three different positions by white; tips of all the feathers white. Bill black; cere, legs, and toes, yellow; claws black. Length of male ten inches, of female twelve inches.

Young.—Above brown, feathers margined with rufous; beneath rufous, blotched or banded transversely with black-brown; throat but slightly spotted.

Inhabits Africa,—forests of South Africa.

Le Minule, Le Vaill. *pl.* 34.

Accipiter melanoleucus, Smith. Above black with a faint tint of brown; below deep black. Primary quill feathers black, the inner vanes towards quills spotted or irregularly banded with white; secondaries dusky brown clouded with black, and the inner vanes spotted with white; scapulars brown with some white blotches on both vanes. Tail slightly rounded, black, with four or five tawny brown bands, the outer feathers more or less blotched with white towards quills, the centre ones without variegations. Bill black, with the festoon and a spot on the lower mandible yellow; legs and toes greenish yellow; claws black. Length about twenty inches.

Middle age.—Above black, beneath white blotched more or less with black.

Young.—Head rufous, longitudinally streaked with brown; back brown, the feathers margined with rufous; under parts rufous, variegated with longitudinal brown stripes. Tail slightly rounded, each feather with four or five transverse black bands, and the spaces between them brown, finely mottled with white; some of the black bands are somewhat arrow-shaped, with their distal edges margined tawny white.

Inhabits South Africa.

Accipiter melanoleucus, Smith, *South African Quarterly Journal*, vol. i. p. 229.

Obs. Naturalists who see reason for separating the larger and more robust species from the smaller and more slender ones, would rank this as an *Astur*.

Accipiter Madagascariensis, Verreaux. Above dull brown with an irregular white spot on the nape; below white, finely barred with brown-black; vent and under tail coverts pure

white. Wing feathers brown with transverse black bands, inner vanes towards quills white; insides of shoulders white, barred with black. Tail brown above, ashy white beneath, and both surfaces marked with eight narrow brown-black transverse bands. Length thirteen inches and a half.

Inhabits Madagascar.

SUB-FAM. MILVINA.

Bill moderate, curved from the base; cere naked; nostrils oblique, oval, or elliptical; tarsi short, slender; toes weak; wings very long; tail slightly or deeply forked or graduated, and composed of twelve feathers.

Genus MILVUS. Cuvier.

Bill moderately robust; nostrils elliptical, oblique; tarsi short, slender, and scutellated; fourth quill feather the longest. Tail deltoïdal forked or graduated; claws robust.

Milvus parasiticus. Bill and cere yellow; eyes dark brown; head and neck pale tawny, each feather with a longitudinal blackish brown streak which includes the shaft; interscapulars, back, tail coverts, and shoulders, brown, the feathers tipped with a lighter tint; chin and throat streaked longitudinally with brown and dirty white; breast and belly dirty dull rufous, with a narrow stripe of black along the centre of each feather; under tail coverts and thighs rufous; primary and secondary wing coverts blackish brown, with light tips. Primary wing feathers black, mottled slightly with white on inner vanes towards quills; secondaries brown, with the inner vanes crossed by indistinct dusky bands. Tail slightly forked, reddish brown, with eight or nine narrow blackish transverse bands, and the tips of all the feathers reddish white; legs and toes yellow; claws black. Length twenty inches.

Young.—Bill black; colour above dark brown, the feathers tipped with tawny white or pale rufous; beneath brown, feathers tawny white towards tips, shafts black; under tail coverts sub-rufous.

Inhabits Africa,—common in South Africa.

Le Parasite, Le Vaill. *Ois. Afriq.* pl. 22. Kucken-duif of the Cape Colonists.

Genus ELANUS. Savigny.

Tarsi short, reticulated, and half-covered with feathers below the knees; wings long; tail slightly forked or moderately graduated.

Elanus Cæsius, Savig. Bill black; cere yellow; eyes red; front and eyebrows white; crown and back of neck light

bluish grey; interscapulars, back, rump, and scapulars, bluish grey; shoulders jet black; chin, throat, breast, belly, vent, and inside of wings, pure white. Primary and secondary wing coverts bluish grey, with the edges of inner vanes white, and some of the feathers distinctly tipped with that colour; primary quill feathers hoary grey, shaded towards tips with reddish brown; secondaries bluish grey. Tail slightly forked, pale bluish white; shafts dark reddish brown; legs and toes yellow; claws black. Length eleven inches.

Young.—Bill black; base of under mandible, and the part of the upper one adjoining it, yellowish; front reddish white; crown and back of neck dusky, slightly variegated with very fine reddish tawny streaks; interscapulars dirty blackish blue, with fine reddish white tips; back uniform dusky blue; scapulars dirty blackish blue, with a tinge of brown, and all broadly tipped with dull white; shoulders black, many of the feathers faintly tipped with white. Primary and secondary wing coverts bluish grey, many of them with white tips; primary wing feathers blackish blue with white tips; secondaries with reddish white tips. Chin and throat white; breast and belly pale tawny or dull reddish white; thighs white. Tail a pale dusky blue with shades of brown; part of edges of inner vanes white; tips of feathers white or tawny; legs and toes yellow; claws black.

Inhabits South Africa.

Elanus Melanopterus, Leach. *Falco melanopterus*, Daud.
Orn. Le Blac, Le Vaill. *Ois. d'Afrique*, &c. 36 & 37.

Genus NAUCLERUS. *Vigors*.

Bill weak, compressed; nostrils sub-oval, oblique; wings long, second and third quills longest; tail long and deeply forked; tarsi short, weak, and reticulated; feathered below the knees.

Nauclerus Riocourii, Vigors. Body above ashy grey; below pure white; a white stripe on the forehead; a line before and behind the eye black. Tail grey; bill black; cere and tarsi yellow; second quill feather the longest. Length fourteen inches and a half.

Inhabits Senegal.

Elanoides Riocourii, Vieill.

SUB-FAM. BUTEONINA.

Bill curved from the base, the edges entire; tarsi naked or covered with feathers; wings almost as long as the tail; figure rather robust.

GENUS *PERNIS*. *Cuvier*.

Bill curved from the base, edges sharp, culmen nearly sharp; tarsi short, moderately strong, reticulated, and with scutæ on the toes; space between angle of mouth and eye covered with feathers like scales; nostrils, oblique narrow slits at the anterior edges of cere; tail and wings long; tarsi half covered with feathers below the knees.

Pernis Madagascariensis, Smith.* Above, dark brown of various tints, the feathers of the head more or less distinctly margined with rufous; beneath, dull brown dashed with white, particularly on the throat and the breast; most of the feathers on belly narrowly tipped with white; hinder part of belly, vent, under tail coverts, and legs, white; some brown spots on the outer sides of thighs. Quill feathers light brown, transversely banded with dark brown, and the inner vanes towards quills crossed with white; the tips of most of them dull white. Tail above dark brown; towards base banded with white, towards tip with brown grey, the tips themselves white; beneath, white crossed with about four dark brown bands. Bill dark horn-coloured; lower mandible yellow towards base; naked portion of tarsi and toes yellow; claws dark horn-coloured. Length eighteen inches.

Young.—Above, light brown; the feathers, particularly those of the shoulders, tipped with rufous white; beneath, fulvous dashed with white, and the feathers of breast and belly tipped with white.

Inhabits Madagascar.

Obs. Most of the feathers of head, neck, and body, pure white towards quills.

GENUS *BUTEO*. *Bechst.*

Bill curved from the base; edges a little waved, culmen rounded; angle of mouth under the eyes; spaces between nostrils and eyes covered with hair; nostrils irregularly rounded, naked and open; tarsi robust, scutellated before, reticulated behind; tail slightly rounded.

Buteo Jackal. Bill black with the exception of a little of the lower mandible at its base, which, and the cere, are dull yellow; eyes dark brown; head, neck, back, shoulders, chin, and throat, black or blackish brown; breast deep chesnut or ferruginous red; belly, under tail coverts, and thighs, black; all the feathers broadly tipped with white or ferruginous red. Primary wing feathers black, with a tint of hoary upon the

* This species has not the scale-like feathers of *Pernis*, but in other respects it exhibits most of the characters of the genus.

outer vanes, and the inner ones towards quills broadly edged with, if not altogether, white; secondaries bluish grey, with many transverse narrow black bands, the very tips of some of the feathers are white. Tail short, nearly even, and deep chestnut or ferruginous red, each feather marked by a black blotch close to tip, and all, more or less mottled with white towards quills; legs and toes dull yellow; claws dark horn-coloured. Length from bill to base of tail twelve inches; length of latter eight inches.

Young.—Above dull brown, most of the feathers edged with tawny; beneath, pale fulvous; the throat and sides of neck with longitudinal black blotches; tail grey-brown banded with black.

Inhabits South Africa,—very common.

Falco Jackal, Shaw. *Zool.* vii. p. 173. Le Ru noir, Le Vaill. *Ois. Afriq.* pl. 16. Jackal-vogel of the Cape Colonists.

Cbs. The plumage of this species is subject to endless variety.

Buteo tachardus. Bill black, with the base of lower mandible, and a small portion of the upper adjoining it, yellow; cere yellow; eyes brown. Head, neck, back, and rump, brown, with the edges and tips of the feathers rufous, and the bases of many of them, particularly on the head and neck, white; many of those of neck, back, and shoulders, clouded, spotted, or crossed by irregular white streaks. Under parts white, the throat streaked with longitudinal brown lines; the breast and posterior part of belly more or less spotted with oblong or roundish brown blotches; centre of belly white; thighs reddish brown. Primary quill feathers black, the inner vanes towards quills white; secondaries brown, with irregular transverse blackish bands, the edges of the inner vanes white. Tail moderately long, slightly rounded, of a greyish or rufous colour, with ten or more narrow waved transverse blackish brown bands; tip of each feather dirty reddish white. Legs and toes greenish yellow; claws black. Length eighteen inches.

Young.—Above brown, verging towards blackish brown; below brown-red or dull rufous, the shafts of the feathers black; chin with a slight mottling of white. Tail feathers greyish, on outer vanes, crossed by many waved or oblique narrow blackish bands; on inner vanes reddish white, or reddish brown, with similar black bands; tips of all the feathers dirty reddish yellow. Legs and toes greenish yellow; claws black.

Inhabits South Africa.

Falco tachardus, Daud. Le Tachard, Le Vaill. *Ois. d' Afriq.* pl. 19.

Buteo desertorum. Bill and cere yellow; eyes red; head, neck, back, and belly, ferruginous red; the latter with dashes of black; throat, breast, and under tail coverts greyish white. Primary quill feathers black. Tail ferruginous red above; greyish white with indistinct transverse bands, beneath. Legs and toes yellow; claws black. Smaller than *Buteo Jackal*.

Inhabits South Africa,—rare.

Falco desertorum, Daud. Shaw, Lath. Le Rougri, Le Vaill. *Ois. d' Afriq.* pl. 17.

Genus BUTAETES. Lesson.

Bill slender, arched from the base; nostrils oblique; wings nearly as long as the tail, fourth feather the longest; tarsi feathered to the toes.

Butaetus buteo, Lesson. Over each eye a narrow black stripe; head, neck, breast, anterior part of belly, and legs, white, with longitudinal brown stripes, largest on the sides of breast and belly; interscapulars, scapulars, and shoulders, brown, margined with rufous or white; back nearly an uniform brown; upper tail coverts white, dashed with brown; centre of belly and flanks dark brown, variegated with rufous or tawny white; hinder portion of belly and under tail coverts an uniform dull white. Primary wing feathers brown, both vanes towards quills white; secondaries brown, inner vanes white towards quills; all the feathers obscurely tipped with dusky white. Tail white towards base, grey-brown towards extremity, with an indistinct dark band immediately behind the tip, which is dull white. Bill dark horn-colour; the base of lower mandible, cere, and toes, yellow; claws black.

Inhabits South Africa and Europe.

Falco lagopus, Gmel. Buse Gantée, Le Vaill. *Ois. d' Afriq.* pl. 18.

Butaetes Lessonii, Smith. Above brown, the shoulder feathers margined with brown-white; ears and space behind base of lower mandible brown-black; under parts white; the breast and anterior part of belly streaked with brown-black. Primary wing feathers black-brown, the inner vanes towards quills white, secondaries with blackish transverse bands on inner vanes, and all tipped with white; insides of shoulders white, spotted with black. Tail nearly even, the feathers black-brown, variegated with narrow waved irregular bars of a darker tint, and all tipped with obscure white. Bill bluish black; cere and toes yellow. Length eighteen inches.

Young.—Cere and toes greenish yellow; head and back of neck light brown, feathers margined with rufous; interscapu-

lars and back dark brown; throat, breast, and belly, tawny white, more or less variegated with longitudinal brown streaks.

Inhabits South Africa,—near Heer-logement.

Morphnus dubius, Smith. *South African Quarterly Journal*, vol. i. p. 117.

GENUS CIRCUS. *Bechst.*

Bill moderately compressed; spaces between eyes and nostrils covered with rigid hair; nostrils oblong-rounded; a collar of rigid feathers in a half-circle between the chin and the ears, formed by the auricular feathers. Tarsi long, slender, scutellated before, reticulated behind; claws moderate. Tail rounded and broad.

Circus gallinarius, Shaw. *Male*.—Head, neck, back, wings, and rump, bluish-grey; wing feathers white at their bases, elsewhere black; insides of shoulders, rump, belly, flanks, thighs, and tail beneath, white; tail above ashy grey, tips of feathers white; eyes yellow. Length one foot seven inches.

Female.—Upper parts dull brown; the feathers of head, neck, and anterior part of back, bordered with rufous; beneath yellow-rufous, variegated with large longitudinal brown spots; outer vanes of wing feathers rayed dark brown and black, inner ones black and white; rump white; the two middle tail-feathers rayed black and deep ash, the lateral ones rufous-yellow and black.

Young.—Similar to the female, and the male of the first and second year.

Inhabits Egypt, Europe, and America.

L'Oiscan Saint-Martin, Buff. *Falco Gallinarius*, Lin. *Falco Pygargus*, Gmel.

Circus melanoleucus. Head, neck, back, rump, shoulders, and upper parts of breast, deep black; under parts pure white. Primary quill feathers black, secondaries and wing coverts cinerious, variegated with black spots or imperfect bands. Tail above, hoary grey, irregularly spotted with brown; beneath white. Bill black, with a yellowish spot on each mandible towards base; cere, tarsi, and toes, yellow; claws black. Length twenty-two inches.

Female.—Grey-white dashed with black.

Young.—Brown-black above; white beneath, dashed with longitudinal brown-black streaks.

Inhabits South Africa and India.

Falco melanoleucus, Gmel. Lath. *Faucon a collier des Indes*, Sommerat, *Itin*, t. ii. p. 182. *Le Tchong*, Le Vaill. *Afriq. pl.* 32.

(To be continued.)