



NO. 2, JAN 1898

SOUTH AFRICAN QUARTERLY JOURNAL.

A Description of the Birds inhabiting the South of Africa. By ANDREW SMITH, M.D. Member of the Wernerian Natural History Society of Edinburgh; Honorary Member of the Mineralogical Society of Jena, &c.

[Continued from p. 17.]

Genus. GYPAETUS. *Storr.*

Caput, plurimum collumque totum plumosa; rostrum subcrassum barbatum; nares barba setosa, operta. Remiges 2da. et 3tia. æquales longissimæ. Tarsi breves plumosi; Rectrices 12.

Head and neck for the most part covered with feathers; beak moderately strong bearded; nostrils covered by a hairy beard; second and third wing feathers equal, and the longest; tarsi short and feathered; tail composed of twelve feathers.

Vultur Lath. Briss. Meyer.—Falco Gmel.

1. GYPAETUS BARBATUS. *Cuv.—Arend and Lammervanger of the Colonists.*

Vultur barbatus et barbarus, Lath. Ind. Orn, vol. 1, p. 3, sp. 5 and 6.—Vultur Leucocephalus, Meyer, Taschenb. Deut. vi. p. 9.—Falco barbatus, Gmel. p. 252, sp. 38.—Vultur aureus, Brisson Orn.—Edwards, t. 106.

G. rostro niger; capite et cervice subalbidus; dorso et scapulis fusco-nigricans; subtus subfulvus; iridibus duobus circulis, interiore flavo, exteriorē rubro.

Bill black; head and cervix dirty sallow white; circle round the eyes, and space between them, and bill covered with a deep black hair as well as each side of lower mandible, at base, also some similar hair under the bill, which is in the form of a large tuft pointing forwards; irides of two colors, viz.: yellow towards pupil, and fine red towards circumference; front and part of sides of head behind eyes, as well as base of lower mandible, covered with a dense white down; rest of head and cervix dusky white, faintly tinged with rufous; back and shoulders dusky, inclining to black, the centres of

the feathers being more or less distinctly, an obscure cinereous black, and the edges clear black, the shafts white. Primary and secondary quill feather, together with the tail, more or less grayish; throat, breast, belly, and thighs clear or dull rufous; toes somewhat granulated, and dusky black. Length about three feet.

Young.—Head and neck brownish black; upper parts grayish brown with blotches of dirty white; the anterior part of the back with large white blotches; the scapulars and wing coverts blackish with lighter colored spots; the quill feathers brownish black; iris brown; feet livid.—(Tennink.)

This bird is found, though scantily, in most parts of South Africa, and is seldom seen in company either with those of its own species or of any other genus. It frequently resorts to spots where carrion occurs, and feeds upon it; and it often also, according to the statements of the inhabitants, attacks and kills the smaller quadrupeds.

Fam. FALCONIDÆ.

Caput plumosum; aut partim denudatum, rostrum forte, aduncum, basi cerigerum; nares laterales, in ceromate positæ, plus aut minus rotundatæ, apertæ; digiti externi præcipuè mediis connexi, ungues validi, acutissimi, maximè incurvi, retractiles.

Head clothed with feathers or partially naked; beak strong, bent down, and furnished with a cere; nostrils lateral, placed in the cere, more or less rounded, and open; outer toes chiefly connected with the middle one; claws stout, very acute, much incurved, and retractile.

Stirps.—AQUILINA. (EAGLES.)

Rostrum longum ad apicem solum aduncum; remex quarta præcipuè longissima.

Beak long, hooked at the tip only; the fourth quill feather usually longest.

Genus. POLYBOROIDES. *Mihi.*

Rostrum compressum præcipue versus culmen, modice uncinatum. Nares longitudinales et angustæ, ceroma læve; latera capitis ante et partum etiam post oculos, denudata. Tarsi longi graciles et reticulati; ungues compressi acuti, 3^a remex longissima.

Bill compressed, particularly towards culmen; moderately hooked; nostrils longitudinal and narrow; ceroma smooth; sides of head to some little distance behind eyes bare. Tarsi long, slender, and reticulated; claws compressed and acute; fourth quill feather the longest.

POLOBOROIDES TYPICUS.

P. caput, collum, et dorsum, cæsia, lineis transversis aut maculis nigris variegatis; gulture et pectore cæsiis abdomine et femoribus, albis, nigro transverse, striatis; remigibus primariis, nigris, secundariis cæsiis; rectricibus nigris, facia lata, apicibusque albis.

Bill dark horn colored; orbits and cere inclined to orange; front, crown, neck, interscapulars, and back fine gray; shoulders and scapulars the same, slightly variegated, however, by narrow dusky lines, and most of the latter besides have also a large black blotch towards their tips. Primary wing coverts dark gray, each with a large black blotch towards the tip, which last in all of them is white; secondary coverts the same, only the gray is a little lighter. Primary wing feather gray towards quills, elsewhere shining black, with the exception of some of the innermost, which are white; secondaries principally gray, having each a broad black bar towards tip, which itself is white. Tail long, rounded, shining greenish black, with a broad band of white mottled with black towards its extremity, and the apices of all the feathers white, as well as a little of the vanes of each towards quills; chin, throat, and breast an uniform fine gray; belly, vent, insides of shoulders, hinder part of back, and whole of thighs finely marked with transverse black and white lines; tarsi and toes yellowish brown; claws dark horn colored. Length two feet four inches. Found, though very seldom, in the eastern districts of the colony and in Caffreland, as also in Madagascar.

Obs.—Some years ago I saw a specimen of this species, though in a very different plumage, viz. chiefly brown; which was, doubtless, either a young bird, or else the female, if her color differs from the male.

Genus. HALIÆTUS. Savigny. SEA-EAGLE.

Rostrum supra convexum; nares lunulatæ, transverse; ceroma subhispidum. Tarsi semiplumati; acrotarsia scutellata. Digiti liberi, externus versatilis; ungues inæquales, acuti.

Beak convex above; nostrils lunulated, transverse; ceroma subhispid. Tarsi half feathered; acrotarsia scaled. Toes free, the outer one versatile; claws unequal acute.

HALIÆTUS VOCIFER. Groot: Vischvanger of the Colonists.

Falco vocifer, Shaw, 7, p.94; Le Vocifer, Le Vaillant, Ois Afr. pl. 4.

T. capite, collo, parte anteriore dorsi, pectore, et cauda albis, humeris abdomine cruribusque, ferrugineis; ceroma et digitis flavis.

Male.—Bill black; cere yellow; space between cere 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.

Female.—The black color is less clear; the white is more dusky; and the chesnut lighter; which, together with the greater size, form the only differences between the sexes.

Young.—"The parts that are white in the old bird, are ashy gray in the young;" those that are chesnut in the former, are brownish in the latter; and the shoulders and back are also of a brown color; the wing feathers are black, but not so deep as in mature specimens. "In the third year it acquires its complete plumage."

In the vicinity of most of the large rivers of South Africa this bird occurs, and it is also now and then met with about the different bays along both coasts; but particularly the South-east one. "They build their nests upon the tops of trees or on rocks, and the female lays three or four white eggs, rather larger than those of the turkey." When this bird is observed to make much noise as perched upon the trees on the banks of rivers, the inhabitants consider rain as near at hand.

HALLÆTUS BLAGRUS. *Fishing Eagle* of the Colonists.

Falco blagrus, *Shaw* 7, p. 96; *Le Blagre*, *Le Vaill. Ois Afr.* pl. 5.

H. fuscus, *capite*, *collo*, *cauda*, *corporeque subtus albis humeris fuscis*; *iridibus fuscis*; *tarsis flavis*; *unguibus nigris*.

"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 grayish 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."

"This bird is found inhabiting the sea coast and the banks of rivers abounding with fish; and is hence seldom met with far in the interior." Near the mouth of the Boschman river I once saw a bird of prey, which was, evidently, one of the species above described; and on another occasion one perched upon a large tree over-hanging the Keiskamma. I have never, however, been able to procure specimens for examination.

Genus. CIRCÆETUS. Vieillot.

Rostrum supra convexum; nares lunulatae; ceroma subhispidum. Tarsi elongati, nudi; acrotarsia reticulata. Digiti breves; externus cum medio ad basin connexus; ungues breves subæquales.

Beak above convex; nostrils lunulated; ceroma subhispid. Tarsi elongated, naked; acrotarsia reticulated. Toes short; the outer connected at the base to the middle one; claws stout, nearly equal.

CIRCÆETUS PECTORALIS.

C. nigro-fuscus aut niger, guttere et pectore nigris, abdomine, crisso; et cruribus albis; cauda facis transversis nigris que albidis striata; Iridibis flavis; tarsis subalbidis, unguibus rostroque subnigris.

Male.—Bill dark horn colored; eyes fine yellow; head, together with the back and sides of neck blackish brown, the former often with a slight tinge of gray; 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 grayish, or grayish 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 gray and white as the ground color, and to be crossed more or less completely by three broad black bands. When the two colors first mentioned occur in the same specimen, the gray 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 color 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.

Female.—In point of color the male and female are nearly alike, but the latter is always considerably larger than the former.

Young.—When it leaves the egg it is covered with a dense white down, which, after a few months, is concealed by an uniform light chesnut or a dull earthy brown plumage*. The

* I have met with young specimens of this species of both colors, which might possibly have been different sexes.

primary quill feathers are the same as in old birds, but the secondaries are less distinctly banded, and the proportion of the white in the bands is smaller, or indeed almost wanting, gray being the prevailing color; the tips are white. The tail is banded, but the colors are in a reversed proportion, dark brownish black, or black being the most abundant or ground hue, and reddish white the most scanty. The latter occurs in the form of narrow transverse bands, about four or five on each feather, and the tips of all have besides a narrow edging of dusky white; the tail is also considerably longer in young specimens than in old ones*. Legs and toes shaded with brown; claws nearly black; bill dark horn colored, shaded with yellow; eyes yellow; length of the tail ten inches and a half.

Examples of this species are sometimes met with in a very different plumage to either of the above described; namely, with the under parts principally white, slightly spotted with black or dark brown, and more or less clouded with pale rufous or dirty light chesnut. The head nearly white, or only with shades or streaks of brown, and the back and shoulders brownish, with the feathers more or less distinctly tipped with white.

This bird builds its nest on trees, and constructs it externally with dried twigs, and internally with wool, hair, &c. It lays usually one, though sometimes two eggs, which are very large, and of a pure white color. Wherever South Africa has been explored, the present species has been met with, and though no where in great numbers, yet it is not so rare as to enable us to imagine how it escaped the notice of Le Vaillant. It feeds upon snakes, lizards, mice, &c. and I have been assured by many of the colonists that it even, at times, catches and devours fish. The male and female are usually found together; the young birds acquire the plumage of maturity about the months of May or June of, *perhaps*, the second or third year.

Genus. HELOTARSUS. *Mihi†.*

<i>Rostrum superne convexum, modice curvatum et uncinatum; nares lunulatae; ceroma laeve; lora subpilosa. Tarsi breves</i>	Bill convex above, moderately curved and hooked; nostrils lunulate; cere smooth; lores thinly set with hair.
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* This is not peculiar to the *Circæetus*, but also occurs in the young of many other genera.

† In relation to the position I have chosen for this Genus, as well as for that of *Polyboroides*, I may observe that I am not inclined to view either as well placed. The want, however, of the means of comparing them with the various other genera to which they are more or less allied, renders it necessary for me to leave their immediate affinities to be discovered by others enjoying better opportunities.

partim plumis et partim squamis rigidis elevatis tecti; digiti squamosi et prope unguis scutellati; ungues inæquales modicè curvati. — Remex 2da. longissima, 1ma. et 3tia. fere æquales.

Tarsi short, partly covered with feathers, and partly with rough elevated scales; toes scaly, and towards claws scutellate; claws unequal, moderately curved. The second wing feather the longest, the first and third nearly equal.

HELOTARSUS TYPICUS. Boot or Berghaan of the Colonists.

Falco ecaudatus, Shaw, vol. 7, p. 93. — *Le Bateleur*, *Le Vaillant Ois. Afr. pl. 7 and 8.*

H. niger, dorso, caudaque rufis; humeris griseo-fuscis; tectricibus alarum nigris; primariis et secundariis, griseis aut cinereis prope bases, nigris versus apices.

Male.—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 grayish brown; primary and secondary wing coverts black; primary wing feathers with both vanes gray, and the inner ones edged near quills with white; secondaries cinereous gray, 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 colored; claws black. Length from bill to base of tail seventeen inches; length of latter five inches and a half.

Female.—Colors disposed as in the male, only less bright; size a little greater.

Young.—Cere bluish; bill horn colored; 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 gray; tail blackish brown; claws black.

It is found in Autiqua land and in the eastern districts of the colony, as well as in the country around Lattakoo. It flies very high, and exhibits a peculiar appearance on account of the shortness of the tail and the length of the wings. *Le Vaillant* says it kills young antelopes, lambs, ostriches, &c., but I have seen it only feed upon carrion, which it did with great avidity.

Genus. AQUILA. Auct.

Rostrum supra subangulare; nares rotundatæ; ceroma subhispidum. Tarsi usque ad digitos plumati.

Beak somewhat angular above; nostrils rounded; ceroma rather hispid. Tarsi clothed with feathers to the toes

1. AQUILA BELLIGOSA. Daudin.

Falco Armiger, *Shaw's Zoology*, vol. 7, p. 57.—Falco bellicosus, *Ind. Orn.* vol. 1, p. 9.—Le Griffard, *Le Vaillant Oiss. d'Afrique*, tome 1, pl. 1.

A rostro nigricante; capite subcristato; plumis capitis, cervicisque albo et nigro-fuscus variegatis; dorsi humerorumque fuscis albo marginatis. Infra alba; remigibus primariis nigris apicibus albis; secundariis et rectricibus nigro griseoque fasciatis, extrema parte albis.

Bill bluish at the base, black elsewhere; eyes fine brown; space between them and bill thinly covered with black bristles; plumage of hindhead a little elongated, so as to form a slight crest. Feathers of head, and of back and sides of neck, as well as of the front thereof towards its middle, variegated blackish brown and white; the latter towards their bases and tips, and the former intermediate between those; interscapulars, back, tail, coverts, and shoulders more or less deep brown; with the tips of all the feathers. but particularly of those of the latter, dusky white. Throat, breast, belly, and legs pure white. Primary wing feathers black, tipt with white; secondaries alternately banded with dusky blackish brown and dull hoary gray, and all broadly tipt with white. Tail slightly rounded, with each feather banded more or less directly across by black and hoary gray, the latter usually passing to white towards the inner margins of the inner vanes, and all distinctly tipt with white. Tarsi and toes a light livid green, inclining sometimes to yellowish green; claws deep black and much curved; length from bill to base of tail twenty inches; length of latter twelve inches; expanse of wings about eight feet and a half.

Le Vaillant says*, the female is about one-fourth larger than the male, and nearly of the same color; that she lays two large and almost round white eggs in a nest constructed on a tree or upon rocks, according to circumstances; that the male and female are usually seen together, and that their favorite food consists of hares and the smaller antelopes, which they pursue with much activity and determination. He also remarks that it is only found on the western coast of South Africa, which is also the locality that my experience warrants me in assigning it, as the only two examples I have seen were near to the mouth of Oliphants River.

2. AQUILA VULTURINA. Berghaan and Dassievanger of the Colonists.

Falco Vulturinus, *Shaw's Zoology*, vol. 7, p. 58.—Le Caffre *Le Vaillant Oiss. d'Afrique*, tome 1, p. 28.

* Wherever my own observations are deficient, and the want can be supplied by a reference to the work of the author just quoted, I shall always avail myself thereof without hesitation, only making him responsible by acknowledging the authority.

A. nigra, rostro nigricante; ceroma flavum, dorso albo.

Bill blackish blue, verging here and there to a light horn color; cere deep yellow; eyes reddish brown; space between them and bill pretty thickly set with black bristles; back and tail coverts white; plumage elsewhere deep black; tail more rounded than in the foregoing species; tarsi and toes deep yellow; claws black. Length from bill to base of tail 17 in.; length of latter 12 in.; expanse of wings about 7 feet.

Young.—The upper mandible towards base is yellowish, the rest is livid black; the lower, with the exception of the tip which is of the latter color, is a clear yellow; the head, the back, and the sides of neck, clear reddish tawny, inclined to a pale chesnut; the interscapular and shoulder feathers dirty brown, edged, and strongly tipped with tawny; the back a mixture of chesnut, brownish black, and dirty reddish white. Below reddish brown of various tints, with the centres of feathers blackish or blackish brown; legs light tawny. Primary feathers have their inner vanes, towards their bases, marked by transverse black and white bands, and the outer ones by an uniform brownish red, elsewhere brownish black, with waved bands or narrow lines of hoary gray, and all tipped with reddish white. Tail feathers towards quills black, crossed with narrow reddish white bands; near extremities reddish brown, and tips reddish white; feet and toes livid white; claws black.

Obs.—This is one of the few birds which do not appear to have been quite correctly studied and observed by Le Vaillant. He states it as displaying certain characters of the Vultures, though it doubtless exhibits in its formation and habits, all the peculiarities of the genuine eagles; and he affirms that it feeds upon carrion, but I have never observed it to resort to situations where such existed. As far as my experience goes its food consists almost entirely of the Dassie (*Hyrax Capensis*) and from that circumstance it is usually met with near the tops of mountains, either soaring about or perched in positions from whence it can discover the little quadrupeds just named, upon which it descends with a character clearly indicative of its affinity. Besides such differences in the less tangible points, there is a very material variance in some of the more evident characters, particularly in that of color, which he describes as being entirely black; whilst in twelve adult specimens that I have examined the back and tail coverts were invariably white. That such an omission should have been committed by an observer of such amazing accuracy I can hardly conceive, yet I cannot bring myself to believe that specimens procured by him were without the white back; and, therefore, feel persuaded that his

description was taken from a stuffed specimen, in which the wings were, probably, so disposed as to conceal the color.

This species is said invariably to build its nest in the most inaccessible positions, and to lay one or two eggs. It is much more common than the last described species, even in the country in which both occur; and its habitat is far more extended, being about all the mountainous ranges, and even the majority of the detached hills throughout the colony, and the country a long way to the northward of it.

AQUILA CHOKA. *Chok* of the Colonists.

A. supra fulvus aut subfulvus fusco variegatus; infra fulvus pectore et hypochondriis, maculis nigris, longitudinalibus, notatis pedes flavi, ungues nigri.

Male.—Bill livid blue towards base, dark horn colored at tip; cere yellow; eyes reddish brown; front, crown, neck, interscapulars, and back, pale tawny, with here and there brownish variegations; tail coverts tawny or dirty white; shoulders varied tawny and dark brown; scapulars blackish brown, more or less distinctly tipped with reddish white; primary quill feathers blackish brown, some of them edged on outer vanes with tawny red, and all tipped with reddish white; secondaries dark dirty brown, narrowly edged and tipped with reddish white; primary quill feathers black; secondaries blackish brown on their outer vanes, on the inner grayish variegated by many transverse dark bands; tips of all reddish tawny; tail rounded, brownish gray, and much mottled by partial indistinct dusky black transverse narrow bands; tips of feathers all tawny; under parts tawny with brown variegations, particularly numerous on the flanks and anterior part of the belly; thighs dark ferruginous; toes yellow; claws dark horn colored. Length about two feet four inches.

Female.—Color nearly that of the male, and distributed in the same way; size rather larger.

Young.—Prevailing color chesnut, without any of the brown variegations of the older bird; feathers of the head and back of neck tipped with light tawny; tail dirty brownish gray, tipped with reddish white; cere and toes dull yellow; claws black; eyes yellow.

As far as travellers have penetrated, they have found specimens of this bird; it is pretty abundant all over the colony, and usually resorts to places where carrion exists, to procure its food. When an animal dies it is usually one of the first visitors, and it eats with avidity till the Vultures arrive, when it gives place to them, and remains afterwards a simple spectator. The female builds her nest on trees, but I have had no means of ascertaining the number of eggs she lays.

Obs.—The colors described as marking the old birds, are those most commonly met with, but it may be observed that specimens obtained soon after the moulting season have a chestnut instead of a tawny tinge, and all the brown variegation deeper and clearer. Though I have no direct reason for believing that the plumage described as that of an old male, is only that of one of a middle age, yet from having witnessed so much variety in the markings of birds in that stage, I think it is not improbable that farther observations will prove the mature color to be a little different.

Genus. MORPHINUS. Cuvier.

<i>Rostrum suprà convexum; nares elliptici. Tarsi elevati, subgraciles; acrotarsia scutellata. Digiti subbreves; ungues acuti.</i>	Beak convex above; nostrils elliptic. Tarsi elevated, rather slender; acrotarsia scutellated. Toes rather short; claws acute.
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Spizaëtus, Vieillot.

MORPHINUS ALBESCENS.

Falco albescens, Shaw, vol. 7, p. 93.—Le Blanchard, *Le Vaillant Ois Afriq. pl. 3.*

M. albescens; cristatus; supra fusco-flavescente varius; cauda nigra albo fasciata.

Male.—Bill lead colored; 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 color." Length about two feet six or eight inches.

Female.—"A third larger than the male."

Young.—As well as Le Vaillant could judge from two young specimens which he found in a nest, the color of the plumage is nearly that of the the old bird, excepting that the brown is more abundant, and all the wing coverts are bordered with reddish. When this species leaves the egg it is covered with a tawny white down."

Le Vaillant found this species in Autinequa land, and the only two specimens which I have ever seen, occurred one in the forest between the Sunday and Bushman Rivers, and the other near Hermanus kraal, on the banks of the Great Fish River; but neither of them was I able to procure.

MORPHINUS OCCIPITALIS. Kuifkop Valk of the Colonists.

Falco Occipitalis, Daudin, Ois. 2, p. 40.—*Shaw, 7, p. 59.*—*Nisser Tokoor, Bruce, Le Huppard, Le Vaillant, Ois. Afr. pl. 2.*

M. nigro-fuscus aut niger; occipite cristato; remigibus et rectricibus albo variegatis; pedibus flavis.

Male.—Above blackish brown, inclining to a simple black, at least in very old specimens; below the same color, only of a darker tint; head and crest blacker than the other parts; the latter composed of several feathers, and 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 very outermost ones the white occurs only upon the inner vanes, in those next to them it occupies both vanes, and in what are still more internal the white is crossed by black bands; secondaries have the outer vanes an uniform dusky brown, and the inner ones brown and a dusky or pure white in alternate transverse bands; tail slightly rounded, and each feather marked with white; grayish 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 colored 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.

Female.—In addition to being one-third larger than the male, the colors are less bright, and there is a stronger tinge of brown at all times in the plumage; the legs are also more white; and the light bands of the tail have commonly a stronger shade of gray or reddish white; the white of the primary wing feathers is also generally clouded with light brown; the sides of the head are spotted with white, and the crest is shorter.

Young.—"When they escape from the egg they are covered by a grayish white down, which is replaced by degrees by brownish feathers, edged with red. At the time they leave the nest the crest is quite apparent."

This bird constructs its nest upon trees, and lines it inside with feathers and wool; the females lay two nearly round eggs, which are spotted with brownish red. The male and female usually occur together, and Le Vaillant found them only in Auteniqua land. A fine specimen of this species was shot near Stellenbosch by Dr. Versfeld, and I have seen others frequently about the sources of the Cowie River, and on the banks of the Great Fish River towards De Bruin's Drift. It may, therefore, be said to inhabit the whole of the South-

east coast, and also the interior towards the eastern frontier of the colony, as well as beyond it.

MORPHINUS DUBIUS.

M. supra fuscus aut nigro fuscus ; infra albus striis, longitudinalibus fuscis variegatus ; latera colli pectoris que subfusca. Remiges nigro-fuscae, albo aut nigro plus minus variegatae ; rectrices, fuscae striis nigris undulatis notatae, et apices albae, digiti flavi, rostrum et ungues subnigri.

Female.—Bill bluish black; cere yellow; plumage above brown or blackish brown, according to the age and season of the year, the shafts of the feathers and a portion of the vanes adjoining being always darkest; feathers towards quills more or less white; shoulders the same color as back, with the exception of the margins of the feathers, which are of a lighter tint; sides of neck and breast variegated brown and white; chin, throat, and centre of breast chiefly white, with some brown shades in the form of longitudinal streaks that include the shafts of the feathers; belly white, here and there variegated with clouds of light reddish brown or with dark brown narrow streaks, produced by the shafts being of that color. Several of the long feathers on the flanks more or less distinctly crossed with reddish brown, and those on the outside of the thighs also slightly marked in the same way, only with a lighter shade, the rest of the feathers of the legs pure white. Primary wing feathers blackish brown, except the inner vanes towards quill, which are a pure white or white and black in transverse bands, the latter distribution occurs most particularly in some of the innermost ones, which are almost for their whole extent so marked; secondaries blackish brown, the inner vanes banded with a darker tint, and all pretty broadly tipped with white; insides of shoulders white, with a few blackish brown spots or blotches. Tail nearly even, the feathers blackish brown, variegated with narrow waved irregular bands of a darker tint, and all besides being tipped with white are more or less mottled with that color, particularly the inner vanes near quills; upper tail coverts reddish white; toes yellow; claws black. Length from bill to root of tail ten inches; length of latter eight inches.

Young.—Bill bluish black; cere greenish yellow; plumage above a light brown, with the tips and edges of the feathers light tawny or reddish; chin, throat, and centre of breast light tawny with brown streaks; belly the same color, with a few narrow brown lines; flank feathers, and those on outside of thighs marked as in older specimens; wing feathers and tail with the brown less deep; toes greenish yellow; claws black.

Obs.—In the above descriptions I am very doubtful if either

the mature or young plumage be detailed, as a variety of circumstances concur to induce me to believe that both are examples of a plumage in a middle stage, only; that of the one being at least a year older than that of the other. Of the four individuals which I have had an opportunity of examining, two were killed at the *Heer Logement*, near the Oliphants River, one near Cape Town, and the other some where in the interior. At the former of those situations this bird is by no means rare, but on account of its great shyness is with difficulty obtained. It retreats upon the approach of evening towards the higher parts of the mountains, and perches during the night upon the branches of old and decayed trees. In the day it resorts to the plains in search of food, and in its progress through the air it commonly soars, is circles, and at a great height, whereby it is almost impossible to destroy it while on the wing. In consideration of its form and general character, I have placed it for the present in the Genus *Morphinus*, though I am not quite convinced but that a more extensive opportunity of studying and comparing its characters, habits, and anatomical structure, will point out its affinity and position to be elsewhere. It is a species, therefore, which I should particularly recommend to the observation of the colonists, and specimens of it in different ages would be most acceptable, more particularly the young as found in the nest.

Genus. *CYMINDIS**. *Cuvier*.

<i>Rostrum supra convexum;</i>	Beak convex above; nostrils
<i>nares subclausi, rimiformes.</i>	nearly closed, and resembling
<i>Tarsi breves; digiti semi-palmati.</i>	a cleft. Tarsi short; toes half-webbed.

CYMINDIS BACHA.

Buteo Bacha, *Cuv. Reg. Animal*, 1, p. 324.—*Falco Bacha*, *Shaw*, 7, p. 157.—*La Bacha*, *Le Vaillant*, *Ois. Afr. pl.* 15.

C. obsкуро-fuscus aut nigricans; humeris, abdomine et cruribus albo notatis; tectricibus inferioribus caudæ albo lineatis; crista occipitali nigra albo fasciata; cauda fascia alba.

Male.—"Bill lead colored; cere and bare space between beak and eyes yellow; eyes a deep brownish red; head black, variegated with white; hindhead crested; the feathers black at their tips, and white elsewhere; plumage above earthy brown or blackish brown, lightest on the wings and shoulders; beneath the same hue, only less deep, and from the breast to the legs the feathers are spotted with white, as are also those on thighs and shoulders; the hinder part of abdomen and vent

* *Shaw's Zoology*; vol. 13, p. 21.

rayed transversely brown and white; tail slightly rounded with a broad band of tawny white, and each feather tipt with white; tarsi and toes yellowish; claws black. Length one foot eight or one foot ten inches."

Female.—"The spots are less distinct, and more of a tawny tinge; the brown is less clear; and the size exceeds that of the male."

Le Vaillant found this bird on the mountains of Great Namaqualand, and I have myself seen several examples of it, at least as far as I could judge, about the tops of the mountains which occur towards the lower part of the Orange River. It is very shy, and on that account, though I endeavoured by every means to procure a specimen, I was unsuccessful. "It makes its nest in holes of the rocks, which it constructs externally of sticks, and internally of leaves or moss, and lays two or three eggs. Rock rabbits (*Hyrax capensis*) form its principal food."—As I have never myself had an opportunity of examining this bird, I have placed it in the Genus *Cymindis*, in consequence of the remarks of Mr. Vigors, one of the most enlightened Ornithologists of the present day†.

Stirps. ACCIPITRINA. (HAWKS.)

Rostrum breve à basi aduncum; alæ breves; remex quarta plerumque longissima.

Beak short, hooked from the base; wings short; the fourth quill generally longest.

Genus. ACCIPITER. *Auct.*

<i>Rostrum breve; nares sub- ovales. Tarsi elongati glabri; acrotarsia scutellata, suturâ vix decernenda.</i>	Beak short; nostrils somewhat oval. Tarsi elongated, gla- brous; acrotarsia scutellated; sutures scarcely visible.
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Sparvius pars, Vieillot.—*Ierax, Leach.*—*Nisus, Cuvier.*

ACCIPITER MUSICUS. Blaauwe Valk of the Colonists.

Falco musicus, Daud. Orn. p. 116.—*Shaw, vol. 7, p. 143.*—*Le Faucon Chanteur, Le Vaillant, Ois d'Afrique. p. 117, pl. 27.*

A. canus, abdomine cruribusque, albis, nigro lineatis; remigibus, primariis nigro fuscis, et secundariis albis nigro notatis; cauda rotundata; plumis duabus mediis nigro-griseis reliquis, nigro et albo variegatis; ceroma et tarsi rubris.

Male.—Upper and lower mandibles at base orange colored, elsewhere black; cere vermillion red; head, neck, and breast

† Zoological Journal, vol. 1, p. 324.

light bluish gray; back and scapulars dark slate color; upper tail coverts white; shoulders silvery gray, finely mottled with black; false wing feathers and primary wing coverts deep hoary, inclined to grayish black; secondary coverts white, mottled with narrow tortuous blackish 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 slight rounded, the two centre feathers blackish gray, and the rest blackish, or blackish gray and white in different proportions, the latter particularly abundant in the two outermost ones of each side, and all, with the exception of the two middle ones, are broadly tipped with white. Tarsi and toes vermillion red; claws black. Length from bill to base of tail ten inches; length of latter the same.

Female.—Colors the same as those of the male, and in point of size is but little superior to it.

Young.—Bill blackish, with a little of the base of each mandible yellow; cere greenish yellow; eyes grayish yellow, inclined to pure yellow; head, neck, and back brown, the feathers of the two former white towards quills, whereby the neck in particular, at times, appears much marked with the latter color; 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, and the outer vanes tinted with gray; secondaries bluish gray, banded with black, and tipped with white; tail with reddish gray and blackish brown transverse bands; the former four in number; legs and toes somewhat flesh colored; claws black.

This Hawk is very generally distributed throughout the whole of South Africa, and is particularly abundant along the flats adjoining the western coast. It lives upon mice, lizards, and the smaller birds; makes its nest on trees; construct it externally with dried twigs, and internally with wool, and lays two or three white eggs of nearly the size and shape of those of the common domestic hen.

Obs.—In the appendix to Denham and Clapperton's Travels and Discoveries in Northern and Central Africa, p. 195, it is stated that "this beautiful Hawk was met with occasionally in most parts of Central Africa, but not in any abundance." It is placed in the Genus *Astur* by the writer of the observation just quoted, but the length of the tarsi and its general form, appear to me to ally it more to the *Accipiter*.

(To be continued.)