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I.—On the Birds collected by Mr. Claude H. B. Grant at various Localities in South Africa.—Part IV. By W. L. Sclater, M.A., F.Z.S., M.B.O.U. With Field-Notes by the Collector.*

[Concluded from Vol. v. p. 741.]

(Plate I.)

THE numbers in front of the names of the Birds are those of the 'Check-list of South-African Birds,' published by me in 1905 (Ann. S. Afr. Mus. iii. pp. 303-387), which is founded upon the four volumes of the 'Birds of South Africa' by myself and the late Dr. Stark.

In order to save space the following contractions are used:—

CC. = Cape Colony. Tv. = Transvaal.

N.=Natal. P.=Portuguese East Africa.

Z.=Zululand.—W. L. S.

491. STRIX FLAMMEA.

Strix flammea maculata Brehm; Reichenow, Vög. Afr. i. p. 676.

CC. Durban Rd., Mch., Sept. (3); Z. Sibudeni, Oct. (1); Umfolosi Station, June (1); Tv. Turflop, Mch. (1).

["Mabengwane" of the Zulus.

The Barn-Owl has been noted from the Cape Peninsula,

* For previous parts see 'The Ibis,' 1911, pp. 208-316, 405-437, and 695-741; and map of localities, 'The Ibis,' 1911, p. 213.

Umfolosi Station in Zululand, Legogot and Pietersburg, in the Transvaal, and from the Inhambane, Beira, Gorongoza, and Tete districts of Portuguese East Africa. In habits and cry it is similar to its congener in Europe, as also in being commonly found round habitations and homesteads. It appears first at sundown, spending the day in the woods and plantations and often in outbuildings. This bird, I believe, often meets its death by falling down chimneys; and in the boilers of a deserted mine in the low country of the Transvaal, I found the bones and feathers of several that had fallen down the chimneys and were unable to get back. Judging by the pellets, it feeds principally on mice.

The soft parts of an adult are:—Irides dark hazel; bill

pale yellow; toes yellowish.]

492. STRIX CAPENSIS.

Z. Umfolosi Station, June (1); **P.** Beira, Nov. (1). ["Sesisi" of the Ntebis.

On only two occasions have I come across this Owl: once at Umfolosi Station in Zululand, when the specimen secured was flushed in long grass on a hillside dotted with small trees; and again in the Beira district, when another was flushed from the long grass in a vlei, where I was looking for reed-buck. On examining the place from which it rose, I found that it had made quite a comfortable "form" for itself, and there were a few feathers lying about, shewing that the bird had been preening itself.

The soft parts are:—Irides dark brown; bill whitish horn-coloured, slightly yellow at the base; toes dirty yellow.]

493. Asio capensis.

Z. Umfolosi Station, June, July, Aug., Sept. (10); Umzinele River, Aug. (1); **Tv.** Wakkerstroom, Mch. (1); Klein Letaba, July (1); Pietersburg, Mch. (2); Turflop, Mch. (1).

I cannot accept Reichenow's identification of Levaillant's "Choucouhou" with this species. The plate (Ois. d'Afr. i. pl. 39) is almost unrecognisable, but the description certainly seems to me to refer to *Bubo maculosus*. Levaillant specially mentions the "plaque blanc" on the chest and the white

"variegations" of the back, both of which quite exclude the present species. I therefore prefer to use Smith's name rather than "nisuella" of Daudin founded on Levaillant's plate, as proposed by Reichenow.

[Noted from Zululand, the Transvaal, and from the Inhambane and Beira districts of Portuguese East Africa. In most localities it was found very plentifully, especially in Zululand and the Transvaal. It frequents the long grass in the vleis and valleys, whence it can easily be flushed. I have shot it in the daytime. It leaves its roosting-place just at sundown, the flight being somewhat erratic and often in wide circles. I am told that it breeds in the vleis, but I never succeeded in proving this.

The soft parts are :-

- 3. Irides rich brown; bill dark horn-coloured.
- ? . Irides dark brown; bill dark horn-coloured.]

495. Syrnium woodfordi.

N. Illovo, Nov. (3 and 2 pull.); Z. Sibudeni, Nov. (1); Tv. Woodbush Hills, Nov. (2 juv.).

Two quite young birds with the wing-quills just beginning to grow have almost lost their first down, and are covered above and below with whitish feathers transversely and narrowly banded with fulvous brown; the other pair taken in the Woodbush are larger and very similarly marked.

["Mabangwani" of the Zulus.

Zululand, Natal, and the Transvaal are the only localities in which I have observed this Owl. It is essentially a forest species, and is by no means easy to obtain, usually frequenting the denser bush on the banks of the streams.

The soft parts of an adult are:—Irides hazel; bill dark nap es-yellow.]

496. Bubo capensis.

Tv. Zuurbron, May (1).

["Tsidsi" of the Gorongozas.

The Eagle-Owl was fairly plentiful in the woods and krantzes at Zuurbron, but was seldom seen; I also met with it at Eshowe in Zululand and heard its deep resonant hoot in the forests at Gorongoza, but did not see one. It is

very much a bird of the woods and forests, and consequently cannot easily be obtained. I have not succeeded in finding the nest.

The soft parts of an adult are:—Irides rich yellow; bill

dull black.]

497. Bubo maculosus.

CC. Klipfontein, June (1); Durban Rd., Mch., Sept. (2); Z. Ngoye Hills, Sept., Oct. (1 & 3 juv.); Tv. Woodbush, May, June (2); Legogot, Apl. (1); P. Coguno, July (1).

The birds from the Cape and Zululand are strongly washed with rufous below, while those from the Transvaal and Coguno have the ground-colour pure white without rufous. These two phases are probably of some geographical significance.

The young birds from the Ngoye Hills are much more extensively marked with narrow transverse bands both above and below than are the adults.

[This species is widely spread, and was found in most localities visited, notably Namaqualand, the Cape Peninsula, Zululand, the Transvaal, and in the Inhambane, Beira, and Tete districts of Portuguese East Africa. It usually occurs in pairs, and rests throughout the day amongst the bushes and rocks on the mountains and kopjes, often sitting on the ground, while in country devoid of mountains it roosts concealed in the thick foliage of the larger trees. At night it is seen either sitting on some prominent rock or bare tree or post, uttering at intervals its melancholy hoot, or slowly hawking backwards and forwards within a few feet of the ground. I have not succeeded in finding the nest, but young birds were taken in Zululand, in the forest on the Ngoye Hills, in September and October.

The soft parts of an adult and a young bird are:—Irides yellow; bill dull black.]

499. Scops capensis.

C. Grant, Bull. B. O. C. xxi. 1908, p. 66.

Tv. Klein Letaba, Aug. (1); P. Beira, Dec. (1).

The example from Klein Letaba is in the typical grey

phase, the one from Beira is in the rufous phase, which in this species is very rare. There is no example in the British Museum resembling it. The whole of the back is suffused with rufous except a broad band above and in front of the eye, the ground-colour of which remains almost white; the black markings are far less strongly marked; below, the rufous is fainter and the black streaks are much more feeble; the leg-feathering is white and unspotted. The rufous bird is also slightly smaller than the grey, the wing measuring 127 mm. against 136, though both are sexed as females.

[Only on the two occasions that I have secured specimens have I come across this little Owl. The one from the Klein Letaba was shot from a small tree situated in a dry rivercourse, and that from Beira was put up on the side of an ant-heap in bamboos and was sitting on the ground. Neither of these uttered a sound, and both were remarkably tame.

The soft parts are:—Irides bright yellow; bill dark horn-coloured; toes slaty.

In the specimens from Beira the soft parts were considerably paler in colour; which is in keeping with the plumage.]

500. GLAUCIDIUM PERLATUM.

Tv. Klein Letaba, Sept. (1).

[The occasion on which I secured the specimen was the only time I saw this little Owl; it was shot in the daytime in a small tree in a dry water-course, and was solitary.

The soft parts were:—Irides clear yellow; bill greenish yellow; toes dirty yellowish, nails pale horn-coloured, tips blackish.]

501. GLAUCIDIUM CAPENSE.

P. Coguno, July, Aug. (2); Z. Beira, Jan. (1).

[Only in the Portuguese country did I find this Owl. In the Inhambane district it was not common, but around Beira several pairs were seen and many heard calling at night. One pair was seen near Tete. This species is always observed in pairs, and is often flushed in the daytime from the thick foliage of the densest parts in the patches of forest or dense clumps of bush. It is by no means wild,

but owing to its frequenting dense places it is very often impossible to detect it. The call is "kroo-kroo," low and penetrating, and is heard just after sundown and throughout the night. When flushed in the daytime it does not call.

The soft parts are :-

- 3. Irides yellow; bill pale yellow.
- 2. Irides yellow; bill greenish yellow.

504. FALCO BIARMICUS.

CC. Klipfontein, May (1).

[Since the Central Cape Colony trip I have only observed this Falcon in Namaqualand, the Cape Peninsula, Zululand, and the South-Eastern Transvaal. It is generally observed in pairs, and in habits much resembles the European Peregrine.

The soft parts of an adult are:—Irides dark brown; cere and round eye lemon-yellow; bill light slaty at base, dark at tip; legs and toes lemon-yellow.]

508. CERCHNEIS RUPICOLA.

CC. Klipfontein, July (2); Plettenberg Bay, Feb., Mch. (3); Z. Sibudeni, Nov., Dec. (4); Umfolosi Station, July (1); Tv. Wakkerstroom, Mch., Apl. (9); Zuurbron, May (1).

The two adult females from Klipfontein are quite perceptibly paler than those from the other parts of South Africa. This is what would be expected from the desert nature of Namaqualand.

[This Kestrel is usually seen in pairs and is never found far from mountainous country, in the krantzes of which it feeds and roosts. In flight it much resembles *C. tinnunculus*, hovering like that species; the cry is loud and often repeated, especially in the breeding-season. The food consists mainly of mice, insects, especially grasshoppers and locusts, and occasionally small birds. It is very plucky, and I have seen it attack Crows and Hawks that have approached its quarters, and on one occasion I saw a pair stoop many times at a winged Knorhaan.

The soft parts of an adult are:—Irides brown; bill slaty, darker at tip; cere and round eye yellow; legs and toes the same. In the young the colours are much duller.]

509. CERCHNEIS RUPICOLOIDES.

CC. Klipfontein, June (1); Z. Umfolosi Station, July (3); Tv. Turflop, Mch. (2).

In this case also the Namaqualand example is slightly, but perceptibly, paler than those from Zululand and the Transvaal.

The transverse barring on the flanks is absent from two females obtained at Umfolosi dated July 14 and 24. In these cases the light bands of the tail are pale tawny and not slaty blue, and the birds appear to be immature. An adult female from Turflop has the thigh-bands and only differs from the male in size. Reichenow has suggested that the absence of the thigh-bands is a female characteristic. It appears to me that their absence is merely a sign of immaturity.

[Unlike C. rupicola, this species is often found a long way from mountains or kopjes. It is generally seen perched on some low or stunted bush, and when disturbed merely goes off with a low flight to some other position a hundred yards or so away. It appears to be more or less solitary, and feeds principally on mice and insects, while I can find no record of having seen it chasing small birds.

The soft parts of an adult are:—Irides silver-grey; bill light slaty, darker at tip; base of lower mandible, cere, and round eye lemon-yellow; legs and toes lemon-yellow.]

510. CERCHNEIS NAUMANNI.

Tv. Wakkerstroom, Mch. 2, 14, and 30 (4).

The two males are interesting, as they are both getting their blue heads by a gradual feather-change, and by the wearing away of the edges of the old feathers.

[I have observed this Kestrel only twice—when several flocks passed through the Wakkerstroom district during March 1904, and when a single flock passed close to Pietersburg in March 1906, going south, but were too high

to be shot at. All that I saw spent their time hawking high in the air and were feeding on winged termites and locusts. Only an occasional bird was resting on the tops of the bushes and small trees. This species has a sharp call not unlike that of *C. rupicola*.

The soft parts of the adult are:—Irides brown; bare skin round eyes, lores, and cere very pale yellow; bill, base pale orange, tip slaty; legs and toes pale lemon, nails pale horn-coloured, tips darker.]

514. BAZA VERREAUXI.

Z. Umfolosi Station, Aug. (1); Tv. Woodbush Hills, Nov. (1).

[This species was only twice obtained, once in Zululand and once in the Northern Transvaal. In both cases it was apparently solitary. Except that this Hawk inhabits forest and dense thickets, I have been unable to note anything of its habits or food.

The soft parts of an adult are:—Irides yellow; bill black; cere, legs and toes yellow.]

518. AQUILA WAHLBERGI.

P. Beira, Jan. 27 (13).

[I have only seen this Eagle in the country near Beira, where it inhabits the patches and stretches of forest. It is usually solitary. I found it very wild, and it was only by very careful stalking that I at last succeeded in securing a specimen. I was unable to ascertain its food, and I do not think it was breeding at that time.

The soft parts of an adult are:—Irides dark brown; bill black; cere and gape pale lemon-chrome; toes pale lemon-chrome, nails black.]

525. HELOTARSUS ECAUDATUS.

Tv. Zuurbron, May (1 ♀).

["Berghaan" of the Colonists. "Cuculu" of the Zulus. The Bateleur has been noted in every locality visited from the Cape northwards to the Zambesi. This is one of the most

striking of the African birds of prey, the black under parts combined with the white under side of the wings make it a conspicuous bird on the wing. It is usually observed flying high overhead in large circles or travelling across at a terrific pace without any apparent movement of the wings, the flight being most graceful and strong. In the summer season the birds are seen in pairs, and when chasing each other in the air often turn completely over, striking at each other with the feet, probably in play. The cry is a single loud scream, only uttered when in pairs. I have never observed this species to hold its head at such an angle as that described by Millais, but certainly when hunting it has the beak pointed vertically downwards. It is a very wild bird and I have never succeeded in shooting a specimen, that secured having been taken in a trap baited with meat for cats. Its food consists mainly of lizards, mice, and also carrion; as stated above, I have never seen it attack buck or other game. The following extract from my diary may be of interest :- "25th February, 1907. During my stay around Beira I have seen some numbers of the Bateleur Eagle, and most of them I have been able to carefully examine through my glasses; all have been of the light-backed form (H. leuconotus), and I have been unable to identify one ordinary H. ecaudatus."

The soft parts of an adult are:—Irides rich brown; bare skin round eyes, lores, gape, and cere tomato-red; bill yellow, extreme tip slaty; legs and toes rich dark tomato-red patched with yellowish.]

CIRCAËTUS CINEREUS.

Tv. Klein Letaba, Aug. (1); Legogot, May 20 (one chick in down); P. Coguno, July (1).

Both these birds are in the completely brown plumage which was considered by Sharpe and many others to be the immature stage of the black-breasted, white-bellied form of Harrier-Eagle described by Smith as *Circaëtus pectoralis*.

I am inclined, however, to believe that these two so-called plumages represent two distinct species, and that the brown forms are quite distinct from the white-bellied forms. In this case the former will be C. cinereus Vieill. and the latter C. pectoralis Smith.

I have the following reasons for coming to this conclusion:—

- (1) Although in other respects the two forms do not differ in size, the bill of *C. pectoralis* is constantly and markedly smaller; in five examples in the British Museum it varies from 34 to 36 mm. measured with a pair of dividers from the front of the cere to the tip of the beak. In five examples of *C. cinereus* the bill measured in the same way averaged 44 mm.
- (2) There seem to be no intermediate stages between the two forms, as one would expect to find if they were different plumages of the same species.
- (3) As is shown by Mr. Grant's field-notes, C. cinereus breeds in the brown plumage.

I have examined the following additional examples in the British Museum:—

C. pectoralis—"Cape of Good Hope" (Laugier), "Cape of Good Hope" (Derby), Ondonga $\mathcal{L}(Andersson)$, Pangani River (Kirk), and Brava, S. Somaliland (Kirk). The last-named is considerably smaller than the others.

C. cinereus—S. Africa (S.A. Mus.), King William's Town (Trevelyan), Durban (Warwick), Ft. Chiquaqua, Mashonaland \mathcal{P} (Sowerby), Nyasaland 3 ex. (Sharpe and Manning), Humbe \mathcal{P} (Anchieta).

[I have found this Eagle nowhere common, and have only noted it from the Northern Transvaal and from the Inhambane, Beira, and Gorongoza districts of Portuguese East Africa. It is generally seen circling over the tops of the bushes or perched on the topmost branches of some prominent tree. It is very wild and difficult of approach, even to get within good rifle-shot. It breeds in the forks of the larger trees, and I discovered a nest near Legogot in May so placed in a solitary tree on a hillside. It was a huge mass of sticks, and contained one young bird recently hatched. Both the parents were flying around, but were too wary to

secure. According to the natives I have questioned, this Eagle does not do any damage among their flocks or poultry.

The soft parts of an adult are:—Irides bright yellow; bill black; legs and toes dirty white.]

530. KAUPIFALCO MONOGRAMMICUS.

P. Coguno, June, Aug. (4); Tambarara, Mch. (1).

[I first saw this species in the low country of the Northern Transvaal, but did not secure any specimens; since then I have only noted it in the Inhambane and Gorongoza districts of Portuguese East Africa. It is usually observed sitting in the trees on the outskirts of the woods and forests, and when disturbed goes off with a low flight, rising with an upward sweep to the branches of a tree a few yards away. It is fairly tame and easy of approach. The food usually consists of lizards, scorpions, and grasshoppers, and sometimes carrion; the one shot at Tambarara swooped into my camp, took a piece of baboon meat that was lying on the ground, and was devouring it in a tree close by when I shot it.

The soft parts of an adult are:—Irides dark blood-orange; bill black; cere dark orange; legs and toes tomato-red.]

531. BUTEO JAKAL.

CC. Klipfontein, Apl., May, June (4); Tv. Zuurbron, May (1); Wakkerstroom, Mch. (1); Woodbush, Dec., Jan. (3).

[This species has been noted in Namaqualand, the Knysna district, Zululand, the Transvaal, and in the Gorongoza Mountains. In all the southern localities it was commonly found; a good many were seen at Woodbush, but only a single pair was observed in the Gorongoza Mts. I have never noticed this Buzzard away from mountainous country. It is usually seen perched on some tree or prominent rock, or soaring in large circles high overhead. Pairs are commonly seen, and the cry is very loud. It often visits kraals and homesteads, and steals chickens and young ducks.

The soft parts of an adult are:—Irides brownish yellow; bill dark brown, tip blackish; cere and gape yellow; legs and toes dirty yellow.]

533. Buteo desertorum.

CC. Knysna, Dec. 24, 29, Jan. 22, 26, 28 (5); Plettenberg Bay, Mch. 6 (1); **Tv.** Zuurbron, May 1, 13 (2).

I used to believe that this species was only a summer visitor to South Africa, but the birds taken at Zuurbron in May shew that it stays later, at any rate, than I thought, even if it does not remain throughout the winter.

[I have only noticed this Buzzard in two localities, viz. the Knysna district, where it was common; and in the South-East Transvaal, where only the two secured were seen. Although the two shot at Zuurbron were taken on different days I believe that they were a pair, and my boys told me that they thought they were nesting somewhere near, but I was unable to authenticate their statement. The flight and general habits are very similar to those of B. jakal, but the small size and lighter coloration at once distinguishes this species. The cry is not nearly so loud.

The soft parts of an adult are:—Irides light brown; bill slaty, gape lemon-yellow, cere pale greenish yellow; legs and toes pale Naples-yellow, nails black.]

534. MILVUS ÆGYPTIUS.

Z. Umfolosi Station, Sept. 10 (1); Sibudeni, Oct. 30,
Nov. 11 (2); Tv. Klein Letaba, Sept. 20, 24, & 26 (3);
P. Masambeti, Nov. 10 (1); Beira, Feb. 11 (1 juv.); Tete,
Sept. 9 (1).

["Chabe" of the Zulus. "Nseleli" of the Ntebis.

This Kite was observed at all the localities visited in the summer season. It arrives about the middle of August or the beginning of September and leaves again in March. It was found much more plentifully in the northern localities, especially at Tete. It was in enormous numbers in every port visited up the east coast from Beira to Port Said

during my voyage home, hovering continuously round the steamer and feeding on the scraps thrown overboard. It is usually in pairs, and spends the greater portion of its time in hawking around homesteads and native kraals, and stealing quantities of fowls and ducks. The flight is gliding and graceful when circling over the ground in search of food, but is a series of heavy flops when the bird is moving from one place to another. The call is shrill, and is generally only used when the birds are in pairs.

The soft parts of an adult are:—Irides dark brown; bill and cere yellow; legs and toes the same. In the young the irides are brown; cere and gape lemon-yellow; bill dark brown; legs and toes lemon-yellow.]

536. Elanus cæruleus.

CC. Klipfontein, May (1); Anemous, Apl. (1); Z. Jususie Valley, Dec. (1); Hluhluwe Stream, Aug. (2); Umfolosi Station, Sept. (1); Tv. Wakkerstroom, Apl. (1); Legogot, May (1).

["Okosi" of the Zulus.

The Black-shouldered Kite has been noted in every locality visited, from Namaqualand on the west to the Zambesi on the east. It is a most conspicuous little bird and cannot be mistaken for any other species. It is usually seen either sitting on the topmost branch of a big dead tree or slowly hawking within a few feet of the ground in search of prey; this consists mainly of mice, frogs, lizards, and insects, especially large ground-beetles, and it will also take young and half-fledged chickens, visiting homesteads and kraals for that purpose and often paying the penalty with its life in consequence. When sitting, the tail is often held erect, giving the bird a peculiar appearance from a distance. It is observed equally singly and in pairs; its call is loud and often repeated.

The soft parts of the adult vary individually and are as follows:—Irides red-brown; bill black; cere greenish yellow; round eyes and base of lower mandible yellow; legs and toes lemon-yellow. Another has:—Irides dark red;

bill black; cere, round eyes, and gape lemon-yellow; legs and toes pale yellow. And yet another has:—Irides orangered. In the young the irides are pale yellow.]

539. Accipiter minullus.

CC. Knysna, Feb. (1); Plettenberg Bay, Mch. (1); P. Coguno, Aug. (1); Tete, Sept. (1).

The two adult males from Coguno and Tete are markedly paler than the Knysna example, which might be described as black above, while the Portuguese specimen is slaty-blue.

This species is very poorly represented in the British Museum, but there are four adults from Natal which are nearly as dark as the Knysna bird, while a few examples from East Africa are rather paler, but none of them contrast quite so strongly as those in the present collection. This may be due to the existence of a dark and light phase, or there may be a geographical or possibly seasonal variation; the material at hand is not sufficient to decide the question.

[This little Sparrow-Hawk has been noted in Zululand, the Knysna district, the Transvaal, and the Inhambane and Tete districts of Portuguese East Africa. It is a Hawk of the forests and well-wooded country, and in flight and habits much resembles A. nisus.

The soft parts are:—Ad. Irides yellow; cere, round eyes, and legs and toes yellow. Juv. Irides dirty yellow; cere, legs, and toes greenish yellow.]

540. ACCIPITER RUFIVENTRIS.

Tv. Zuurbron, May (1).

[Although I only observed this species in the locality the specimen comes from, it must exist in every wooded country that I visited, and no doubt I have mistaken it for Astur tachiro, to which species, except for the fact that it does not soar, it is similar in flight and general habits.

The soft parts are:—Irides bright yellow; cere greenish yellow; bill pale slaty at base, dark at tip; legs and toes bright yellow.]

541. ACCIPITER OVAMPENSIS.

Tv. Legogot, May 15 (1 3).

This is a rare species. I have found in the British Museum collection three examples from the Upper Zambesi, one from Nyasaland, and one from Abyssinia. So far as I know, it has not been previously taken further south than the Umfuli River in Mashonaland, where Marshall found it breeding. Its occurrence in the Barberton district of the Transvaal, therefore, is a considerable extension of its range.

[I have not seen this Hawk elsewhere than at Legogot, and there the only specimen observed was secured. It was taken in ordinary "bush-veld," the flight being exactly similar to that of the other members of the genus.

The soft parts are:—Irides reddish brown; cere orange; gape and round the eye lemon; legs and toes dull orange.]

543. ASTUR TACHIRO.

Z. Sibudeni, Nov., Dec. (2); Ngoye Hills, Oct. (1); **Tv.** Wakkerstroom, Mch. (1); Zuurbron, May (1); Woodbush, May (1); **P.** Tambarara, May (1).

["Emvumvyane" of the Zulus.

This Goshawk has been noted from Ngove and Sibudeni in Zululand; Zuurbron and Wakkerstroom in the S.E. Transvaal; Woodbush in the Northern Transvaal; and the Inhambane and Gorongoza Districts of Portuguese East Africa. It is strictly a Hawk of the forests, and all the specimens secured were taken in forest country, except the young one from Wakkerstroom; this was shot in a plantation and orchard at a homestead in open country, and was probably passing over. I have generally seen this Hawk in the interior of the forests, when walking quietly through or sitting up for Bluebuck. The flight and appearance much resemble those of the European Sparrow-Hawk (A. nisus). It, however, has the peculiar habit, unlike any other Hawk I have seen, of often soaring to such a height that it can only be detected with a good glass, flying in smaller or greater circles with quick wing-beats and uttering at regular intervals a shrill

"kik." I have observed that it only soars in the very early morning between the first streaks of dawn and until the sun is well up, when it descends at a terrific pace in one straight "stoop," not checking itself till within the top of the tree.

The soft parts of the adult are:— 3. Irides yellow; bill slaty; cere, bare skin round eyes, legs, and toes yellow. 2. Irides greyish yellow; eyelid bright yellow; bill light slaty at base, dark at tip; cere dark yellowish green; legs and toes bright yellow. Another male not quite so old has the irides hazel; bill slaty; cere, bare skin round eyes, legs and toes yellow. In the young the irides are raw umber; bill light slaty at base, dark at tip; bare skin round eye, lores, and nostrils greenish yellow; legs and toes lemon-yellow.]

544. ASTUR POLYZONOIDES.

Tv. Klein Letaba, Sept. (3 imm.).

[Curiously enough I only noted and obtained this little Goshawk at the Klein Letaba. It was generally observed sitting on an outside branch of a tree, and when disturbed only flew to another some forty or sixty yards away.

The soft parts of an immature bird were :—Irides yellow; bill dark slaty; cere greenish yellow; legs and toes yellow.]

545. MELIERAX CANORUS.

CC. Klipfontein, May, June, July (3); Tv. Woodbush, June (1 imm.).

One egg from Klipfontein, taken Aug. 16, is rather rough in texture, white with a slight bluish tinge, and measures 59 × 53 mm.; it is an almost perfect oval in shape.

["Blaauw-valk" of the Colonists.

Since the Central Cape Colony trip I have only observed this Hawk in Namaqualand, where it was plentiful, and in the Transvaal, where only the single specimen secured was seen. It usually perches on telegraph-posts or the tops of large bushes or stunted trees, and feeds largely on lizards. The immature bird from the Transvaal was shot sitting on the post of some wire fencing, and was solitary, and was the only one seen throughout all the months spent there. On the 16th Aug., 1903, I found the nest at Klipfontein, Namaqualand; it was a large structure of sticks, lined with similar but finer material, placed on the top of a large Taai-bush; it contained only one egg: the old bird was not obtained, although, on two or three days running I put her off; she was too wild for me to get within shot of her.

The soft parts of the adult are:—Irides dark red-brown; bill dark slaty, cere and base of bill blood-orange; legs and toes bright red. The immature bird has the irides much yellower; bill blackish, cere pale orange; legs and toes blood-orange.]

549. CIRCUS CINERACEUS.

Tv. Pietersburg, Mch. 7 (1 adult 3).

[I only observed Montagu's Harrier during the summer at Wakkerstroom, where it was not uncommon but too wild to approach; at Pietersburg, where it was noticed on the same ground as *C. macrurus*; and at Beira in January, where I saw a single male among several Pale Harriers, but there may have been others. On the wing it is not usually distinguishable from *C. macrurus*, which it also resembles in habits.

The soft parts of an adult male are:—Irides clear medium yellow; bill black; cere greenish yellow; legs and toes lemon-yellow.

550. CIRCUS MACRURUS.

Tv. Pietersburg, Mch. 6 (1 imm. 3).

[The Pale Harrier was noticed only in the Wakker-stroom and Zoutpansberg districts of the Transvaal and in the flats near Beira, always in the African summer season. It is generally observed hawking over open country covered with long grass and dry and wet vleis and stretches of marshy ground. It is interesting to watch the systematic way in which these Harriers quarter the country, searching carefully every foot of ground. When hawking they fly just clear of the tops of the grass, halting to find any possible prey and dropping straight on to it. They do not carry their

prey to some vantage spot to devour, but eat it where caught.

The soft parts of an immature male are :—Irides yellow; bill dark slaty, cere greenish; legs and toes yellow.]

553. CIRCUS RANIVORUS.

CC. Plettenberg Bay, Mch. (1); Z. Umfolosi Station, July, Aug. (2); Hluhluwe Stream (1); Tv. Wakkerstroom, Mch., Apl. (2).

[I have observed the Marsh-Harrier at Plettenberg Bay, Zululand; in the Transvaal; and in Portuguese East Africa, in the Inhambane and Beira districts. It is generally seen hawking backwards and forwards over extensive vleis and marshes, and occasionally over stretches of long grass country. It feeds largely on frogs and vlei-rats, and I saw one on the outskirts of Pietersburg take a Pigeon from a flock of tame birds that were circling round. It struck it with a pretty stoop, both Harrier and Pigeon coming to the ground together.

It breeds in the thick reeds and sedges in vleis and marshes, but although I have on several occasions disturbed the old birds I have never succeeded in finding the nest.

The soft part are:—Ad. \mathcal{J} . Irides brown; bill black; cere, legs, and toes yellow. Imm. \mathcal{J} & \mathcal{L} . Irides yellow; bill black, cere slightly yellow; legs and toes yellow.

554. Polyboroides typicus.

Tv. Wakkerstroom, Mch. (1); P. Masambeti, Oct. (1); Beira, Jan. (1).

["Skosi" of the Ntebis.

I have only noticed this species at Wakkerstroom and the Inhambane, Beira, and Gorongoza districts of Portuguese East Africa; it was observed on my overland trip from Gorongoza to Tete, but was not seen actually near Tete itself. It appears to be confined to more or less wooded country, but cannot anywhere be considered plentiful, and is always observed in pairs. It is generally noticed hawking about native clearings and feeds largely on locusts and large ground-beetles, taking its prey to some bare tree

or stump to devour; I have never seen it chasing small birds. The flight is very Harrier-like, but never long-sustained, the bird generally hawking over a small stretch of ground and then pitching down for a short spell; often, however, it rises to a great height and circles about after the manner of Buteo jakal. When seen from below, the pattern of the wings and tail is most striking and the bird appears far larger than it actually is. The cry is a long drawn out whistle, not unlike one call of the Kestrel, and is uttered both on the wing and when sitting, especially when the two birds are far apart. I could learn nothing from the natives as to its breeding-habits.

The soft parts of the adult are:— 3. Irides dark brown; bill black; cere, round nostrils, and gape pale fleshy; rest of bare skin on head and base of lower mandible lemon-yellow; legs and toes lemon-yellow. 9. Irides brown; bill black; cere, lores, base of lower mandible, and all bare skin on rest of head lemon-yellow; legs and toes dirty yellow.]

563. Serpentarius serpentarius.

Tv. Pietersburg, Feb. (2).

["Thlami" of the Basutos.

The Secretary-Bird is by no means an uncommon species, but in most localities is very wild. I have observed it in Namaqualand, where I am told by the natives and residents that it breeds, placing the nest on the top of large bushes, generally the "Taai-bosch"; in Zululand especially near Eshowe; in the S.E. and N. Transvaal; while I saw a single pair at Coguno, Inhambane district, and another on the flats near Beira. It is at all times of the year found in pairs and generally frequents open country. The walk is slow and majestic, the bird at first sight being often mistaken for a Crane. When followed it often breaks into a sort of amble with the wings slightly raised; this is also done before taking to flight. The flight is slow with a steady beat of the large wings, the legs being held back, but not close under the tail. It generally keeps close to the ground, and after several beats of the wings, a glide accompanied by a slight twisting of the

body is often indulged in, which makes one think that the bird intends pitching. On landing, the legs are thrown forward with the wings outspread, and the latter are then slowly and carefully folded. I have never heard the bird call or cry. The food consists of lizards, grasshoppers, locusts, and the young of birds and mammals. Owing to its destroying quantities of young Francolins and hares, protection has recently been withdrawn from it in the Transvaal. On seizing any prey the crest is raised and the wings also slightly elevated.

The soft parts of the adult are:— 3. Irides dark raw sienna; eyelid greenish yellow; basal half of lower mandible and cere lemon-chrome; apical portion of lower mandible and whole of upper pearly white; extreme base of lower mandible, lores, and bare skin above, below, and behind the eye bright orange-chrome; legs and toes pale flesh-coloured. 2. Irides pale silvery brown with dark streaks; eyelid greenish yellow; basal half of lower mandible and cere to gape pale lemon-chrome; apical portion of lower mandible and whole of upper pearly white, slightly paler than in the male; lores orange-chrome; bare skin immediately above eye bright lemon-chrome; rest of bare skin above, below, and behind the eye dull crimson flesh-coloured; legs and toes as in the male.]

567. PHALACROCORAX AFRICANUS.

N. Illovo, Nov. (1 & juv.); Z. Ngoye Hills, Oct. (1).

[The River Cormorant has been noticed in every locality up the eastern side of South Africa, and was found especially plentiful in Zululand and Natal and on the rivers in the Tete district. It generally frequents open sheets of reed-fringed water and the sand-locked estuaries of the rivers, but I have also seen it commonly in the deep-shaded rivers and streams of the Ngoye Hills. The cry is clear and loud, and cannot be mistaken for that of any other bird except perhaps *P. petersi*. When going to and from the feeding-grounds, parties sometimes travel in a V-formation.]

568. PLOTUS RUFUS.

Z. Umfolosi Station, Aug. (1). ["Phishamanzi" of the Zulus.

A fairly common species on most of the lagoons and large rivers, but a difficult bird to obtain. It appears to be usually solitary, although several may be seen on the same piece of water. It is commonly observed sitting upright on some snag or rock, sunning itself with the wings outspread, as do the Cormorants.]

578. CICONIA CICONIA.

[No example secured.]

[I have only once noticed this species, when I saw several feeding on the low-lying ground close to the town of Wakkerstroom in February 1904, but they were quite unapproachable, and at the time I had no rifle with me.]

579. CICONIA NIGRA.

Tv. Klein Letaba, Aug. (1).

[I have occasionally observed this species on some of the rivers to the northwards, always in winter time. It was found to be excessively wary, flying up and pitching on the tops of tall trees on the first alarm, in which position it was unapproachable. The only specimen secured was brought down by a long shot with a rifle.]

584. Scopus umbretta.

CC. Plettenberg Bay, Mch. (1); Z. Umfolosi Station, Sept. (1); Ngoye Hills, Oct. (1); Tv. Wakkerstroom, Mch., Apl. (3); Klein Letaba, July, Aug. (3); P. Tete, Sept. (3 and 4 nestlings).

One egg from Tete taken with the nestlings on Sept. 22.

["Hammer-kop" of the Colonists. "Gaundo" of the Machangaan. "Dwy-dwy" of the Nhlangaan. "Sikiva" of the Zambesi region.

This is one of the commonest birds in South Africa; there is not a spot that holds water where a pair of these birds may not be seen. It feeds principally on tadpoles, frogs, toads, and occasionally small fishes. I have many times watched it feeding, and noticed the clever way in which it pushes the feet step by step under the water, the beak being ready poised to strike at the small fry driven out. I have never seen this bird in water deeper than up to the knees. A great number of nests were observed, but until I reached

Tete I was unsuccessful in finding one occupied. This nest was robbed on the 22nd Sept., 1907, when it contained four young in down and one infertile egg. The nest, which was placed in the fork of a large tree some 12 ft. from the ground, was the usual huge conglomeration of sticks, having the entrance-hole at the side leading to the centre cavity in which the eggs are laid; there was no lining of feathers or other material. The cry is shrill and sharp, and can be heard at a good distance, and may be described as "sikwee, sikwee, kwee kwee," sharply pronounced. Both the Machangaan and Nhlangaan names have reference to the long legs, but the Zambesi name is derived from the call.

The soft parts of the adult are:—Irides dark brown; bill, legs and toes sooty black. In the nestling the irides are white; bill blackish horn-coloured; legs and toes rather paler.]

585. ARDEA GOLIATH.

Z. Umfolosi Station, Aug. (1 ?).

587. ARDEA MELANOCEPHALA.

Tv. Pietersburg, Feb. (1).

588. ARDEA PURPUREA.

P. Masambeti, Nov. (1).

["Shiku" of the Ntebis.

I have only occasionally noticed this Heron and always in the summer season. It is found along dykes, ditches, and swampy country, standing in the water or at the edge, and feeds principally on frogs and tadpoles. It is very tame, and if flushed at close quarters will often fly up and perch on the top of a tree. I have seen both immature and old birds; in November 1907 near Beira I killed one in first plumage that had not yet started moulting, but as it was shot with an expanding bullet it was unfit for preservation.

594. Bubulcus ibis.

Z. Umfolosi Station, Aug., Sept. (5); Ngoye Hills, Oct. (3).

[This is a common bird on the coast and coast-lands, and is always found in flocks of considerable numbers. During a

portion of the year, especially the rainy season, it is found in the interior, but during the drier months keeps more or less in the coast country. It is usually seen accompanying herds of cattle or big game, either picking up ticks and insects on the ground or perched on the animals' backs. In flight the flocks keep no regular formation and they often travel long distances to roost. In Beira Harbour they regularly left the Beira side at sundown, and went away to the mouth of the Busi River.

The soft parts are:—Irides yellow; space round eye, lores, and bill yellow-chrome; legs and toes pale yellow. In younger specimens the legs and toes are dusky, pale yellow on the tibia and the tibio-tarsal joints.]

597. BUTORIDES ATRICAPILLA.

Z. Ngoye Hills, Oct. (1); Tv. Klein Letaba, Aug. (1); P. Masambeti, Nov. (1).

["Nyekauruk" of the Ntebis.

This River-Heron is by no means uncommon on most of the rivers and streams, and I have also seen it in the mangrove-swamps in Beira Harbour. It is most generally met with in the small streams thickly bushed or those that run through forest. When disturbed it seldom flies far, often disappearing into long grass and reeds or sometimes sitting upon the limbs of the forest trees. A quick pronunciation of the Ntebi name gives an excellent idea of the cry.

The soft parts of an adult are:—Irides yellow; round eyes, lores, and lower part of lower mandible greenish yellow, rest of bill black; legs and toes lemon-yellow; front of tarsi and toes slightly brownish. In the immature bird the brownish part of the tarsi and the toes is much more pronounced and the lores are dusky.]

598. Nycticorax griseus.

P. Beira, Jan. (1 9 juv.).

[I do not recollect having seen the Night-Heron anywhere except in the Beira and Tete districts. It was very common in the mangrove-swamps in Beira Harbour, and dozens could be seen leaving the shelter of the bushes for their feeding-grounds just on sundown. The cry is a harsh squawk, frequently uttered when the birds are moving from their resting-quarters, but when disturbed in the daytime they are silent.

The soft parts of the female are:—Irides pale yellow; space round eyes and lores greenish yellow; bill, lower half of upper and the lower mandible yellow, culmen and tips of both mandibles blackish brown; legs and toes yellow.]

602. ARDETTA STURMI.

P. Beira, Jan. (1).

[This little Bittern was only observed on one occasion during all the years I spent in South Africa. I shot it one morning as it rose from the wide ditch dug alongside the railway, which, owing to the very heavy rains, was filled with water.

The irides were yellow; bare skin on lores and round eyes dusky yellow; bill blackish, lower mandible paler; legs and toes dark yellow.]

605. GERONTICUS CALVUS.

Tv. Wakkerstroom, Feb. (3).

["Wilde Kalkoen" of the Colonists.

I have only observed this Ibis in two localities—at Wak-kerstroom, where specimens were secured, and on another occasion when I saw a small party high up on the Jususie River in Zululand. It was very plentiful during my visit to Wakkerstroom, flocks occupying every patch of damp and wet ground; it was also seen in the open dry grass-land catching small insects. The colonial name of the "Wild Turkey" is derived from the bareness and red colouring of the head.

The soft parts of an adult are:—Irides red; bill, crown, and legs dull red; bare skin of head and neck fleshy.]

606. HAGEDASHIA HAGEDASH.

Z. Sibudeni, Nov., Dec. (2); Tv. Zuurbron, May (1); P. Coguno, June (1).

["Hadadah" of the Colonists. "N'Kankani" of the Zulus. This is by far the commonest of the Ibises, being found everywhere within a reasonable distance of water. I have

noticed this species in every locality visited in East and East Central South Africa. It is gregarious, less than half a dozen are seldom seen together, and I have observed flocks of a hundred and upwards in the Zambesi region. This Ibis is an early riser, often being heard moving before daylight and seldom retiring at night till sundown or after. Where such exist it roosts in the woods and forests, or otherwise in the larger trees of the ordinary "bush-veld." Its discordant cry can be heard everywhere, especially when flocks are moving from one locality to another.

The soft parts of an adult are:—Irides dark crimson; bill and lores sooty, culmen dull red; legs and toes sooty, dull red on front of the tarsi and the upper surface of the toes.]

612. PLECTROPTERUS NIGER.

[No example preserved.]

Seven eggs taken at Wakkerstroom, April 4.

[I have noticed this species in Zululand, Wakkerstroom, the Inhambane district, and the country between Beira and Tete on the Zambesi. I secured a clutch of seven eggs on the 4th of April, 1904, at Wakkerstroom. The nest was a mere hollow in the centre of a patch of tall grass in an extensive vlei, without any lining of feathers or grass. I had the day previous hit and lost the old bird, and it was while wading about searching for it on the following day that I discovered the nest. This Goose is generally observed in strings of from six to a dozen, and when on the wing they travel in a line one behind the other.]

615. DENDROCYCNA VIDUATA.

Z. Umfolosi Station, July, Aug., Sept. (5).

In a young female the white face is not so strongly marked and the front part of the crown is not white, only a little lighter brown than the hind portion; in another young bird, also a female, the black does not extend across the throat.

[The White-faced Tree-Duck was only observed in two localities—on the Umfolosi River in Zululand and on the Zambesi River, where I saw a flock of about fifty individuals

near Tete on the 5th Aug., 1907. It was the commonest Duck to be met with in Southern Zululand, and could be seen any day in vast flocks on the lagoons which had been left by the river when in flood. The flight is strong and fast, and excellent shooting is obtained by lying between the lagoons and sending a native round to put up the birds. The call is a low whistle, which is continually uttered when on the wing; from this the species is often known by Colonists as the Whistling Duck.]

616. DENDROCYCNA FULVA.

P. Tete, Aug. (1).

A rare Duck in South Africa, only known from the Zambesi Valley and Lake Ngami, while a stray individual was once obtained near Durban.

[I have never seen this Duck alive; the specimen that was secured was accidentally caught in a rope noose that had been set in some reeds fringing the Mazoe River for cauerats. Although I was continually collecting on both the Mazoe and Luenya Rivers, I did not see any others.]

619. Anas undulata.

Tv. Wakkerstroom, Mch., Apl. (6 ad. +6 juv.).

The adults are all just commencing to moult; the primaries are very much worn, but in no case have they been renewed. Five quite young individuals, dated April 4, have the head, neck, shoulders, and back still covered with down, dark brown on the back, yellowish white on the sides of the face and neck and throat. The rest of the plumage does not differ essentially from that of the adult, except that the central parts of the breast and belly are whiter than in the adult.

["Geelbec" or "Yellow-bill" of the Colonists.

Also one of the commonest Ducks and observed in most localities from the Cape Peninsula northwards; it was specially plentiful at Umfolosi and Wakkerstroom. The Yellow-bill is more partial to large open sheets of water or vleis and rivers in the open country than A. sparsa, and is generally found in small parties of from six to twenty, although sometimes only pairs are seen. I do not think this Duck calls when on the wing so much as A. sparsa. When on

the wing flying over water it appears quite of a bluish colour, and I have at first glance several times failed to recognise the species. Several young were secured in April from a vlei near Wakkerstroom, where they had obviously been bred in the long grass.]

620. Anas sparsa.

Z. Ngoye Hills, Sept., Oct. (1 ? and 4 juv.); P. Tambarara, Apl. (1).

Young birds out of down with the speculum just appearing are almost white on the lower breast and belly, but in other respects very similar to the adults.

I think I have seen the Black Duck in every locality visited, except in Namaqualand, where there was no water for it to frequent. This Duck is always seen in pairs in and out of the breeding-season, except when the young are just able to fly, when the old pair and the young keep together for a time. Young birds were secured in Zululand in September and October; in the latter month three were shot with one barrel from a brood of six on a small river in the Ngoye Hills, on this occasion no old birds were present. When travelling in pairs the drake continually calls to the duck and she answers back, the call being identical with that of A. boscas; but when travelling singly no call is heard. In Gorongoza I saw these Ducks flying every evening just after sundown, returning again by the same route on the first streaks of dawn; but they always passed too high for shooting. The flight is straight and very fast.

622. NETTION PUNCTATUM.

Z. Umfolosi Station, Aug. (2).

[The Hottentot Teal was seen on the lagoons at the Umfolosi River in Zululand; several pairs were observed on the Tsende River in the North-Eastern Transvaal in Sept. 1905, which at that time of year was only in pools, and one pair was noticed flying down the Mazoe River in Sept. 1907. Its small size combined with the white tips to the secondaries at once distinguishes it on the wing from every other Duck.

The soft parts of an adult are:—Irides brown; bill and legs pale blue-slaty.]

623. PECILONETTA ERYTHRORHYNCHA.

P. Beira, Nov. (1).

["Dinoili" of the Ntebis.

I have seen this Duck in several localities visited—notably Zululand, the South-Eastern Transvaal, and the Inhambane and Beira districts of Portuguese East Africa. It is observed singly, in pairs, or often in flocks of about half a dozen, and frequents open water in swamps and lagoons near rivers or occasionally small pools in secluded spots, the last probably for the purpose of breeding. I find the following reference in my diary to a male of this species and a female of Nyroca erythrophthalma which I shot together on a small pool in a reedy swamp near Beira:—

"I especially record this as they were both shot together, and were the only ducks that were on the vlei; it is, however, doubtful whether they were paired, although it is curious that they were male and female and that it was the summer season."

626. Nyroca Erythrophthalma.

Tv. Wakkerstroom, Apl. (2); P. Beira, Nov., Dec. (2).

[This Pochard is a bird of the open water, and I have never found it on shaded rivers or smaller streams. It was commonly noted, though wild, on all the expanses of water at Wakkerstroom; it was occasionally seen on the lagoons at Umfolesi and the lakes and marshes near Beira; I also saw a pair on the Zambesi in Aug. 1907. At Wakkerstroom it was generally in flocks of from six to a dozen of both sexes, but elsewhere I have only seen it in pairs or singly.

The soft parts of an adult male are:—Irides yellow; bill slaty; legs sooty.]

629. VINAGO DELALANDII.

Z. Sibudeni, Nov. (1); Jususie Valley, Dec. (1); Umfolosi Station, July (1); Hluhluwe Stream, Aug. (1); Tv. Klein Letaba, July, Aug., Sept. (7); Legogot, May (1); P. Masambeti, Oct., Nov. (2); Beira, Nov., Dec. (2); Tete, Sept. (1).

[Delalande's Fruit-Pigeon was taken in every locality visited in East and East Central South Africa from Zululand

to the Zambesi. Found in flocks at all seasons, often of a hundred or more, it frequents well-timbered country, especially the trees along the rivers. It is essentially a fruit-eater, being very partial to the wild fig, the Ntuma, and Num Num. The flight is very straight and fast, the flocks twisting through the trees with marvellous rapidity and ease. In Jan. 1907 I found a nest, which was placed in the fork of a small tree some fourteen feet from the ground, and was merely a collection of small sticks; the old bird, however, deserted it without laying and after having been seen there for many days.

The soft parts of an adult are:—Irides white; bill rich tomato-red, apical portion pearly white; legs and toes rich orange, nails pearly white.]

VINAGO WAKEFIELDI Sharpe.

VINAGO WAKEFIELDI.

Vinago wakefieldi Reichenow, Vög. Afr. i. p. 398.

P. Tambarara, Mch. (1); Tete, Sept. (1).

These birds seem to be nearer to *V. wakefieldi* than to *V. schalowi*. The wings measure 168 and 170 mm. respectively, and the terminal band of the tail is about 25 mm. broad.

This species, if really distinct from V. schalowi, is an addition to the fauna of South Africa.

[For a few weeks this Green Pigeon was very plentiful at Tambarara, frequenting the forests in enormous flocks, but about the end of April the birds all disappeared. It was, however, somewhat wary and was always in the thick forest, where it became difficult to secure specimens. The call is exactly similar to that of *V. delalandii*, but on the wing it appears much brighter in colour and smaller, despite the actual measurements being the same.

The soft parts of an adult male were:—Irides blue-grey; bill tomato-red, apical portion pearly white; legs and toes yellow-ochre, nails bluish.]

631. COLUMBA PHÆONOTA.

CC. Klipfontein, Apl. (2); Plettenberg Bay, Mch. (2); Tv. Wakkerstroom, Mch., Apl. (8); Zuurbron, May (1); Turflop, Mch. (1).

["Corn Pigeon" of the Colonists. "Ijuba" of the Zulus. The Rock-Dove, as its name implies, is found only in the mountains and hills, where masses of rocks and cliffs afford cover for breeding and nesting; when in search of food it will travel considerable distances to cultivated lands, always, however, returning at nightfall. I have noted it from the mountains of Namaqualand, the cliffs of the coast-line of the Knysna district, in the Nkandhla Range at Sibudeni, Zululand, on the krantzes at Wakkerstroom and at Zuurbron, Legogot, and Woodbush. In many parts this Pigeon is of some annoyance to farmers, doing considerable damage to cereal crops. In general habits it greatly resembles our European Rock-Dove.

The soft parts of an adult are:—Irides yellow; bare skin round eye, legs and toes dark red, whitish between the scales; bill dull black, nostrils powdered white.]

632. Columba arquatrix.

CC. Knysna, Dec. (2); Z. Sibudeni, Nov. (8); Tv. Zuurbron, Apl., May (5).

["Ijuba" of the Zulus.

I have only noticed this species at the Knysna, Sibudeni, and Zuurbron. At the Knysna only three specimens were observed, two of the three being obtained at one shot, and at Sibudeni it was by no means plentiful, though at Zuurbron considerable numbers were observed. It is a Pigeon of the forests, feeding on the berries of the ironwood and other trees and shrubs, and seldom visiting cultivated lands or only those adjacent to forest. Its presence or otherwise in a district much depends on the food to be obtained; hence, except after long residence in any district, no accurate observations of the habits can be made. It appears to be a more or less gregarious species, as half a dozen at least can often be seen together.

The soft parts of an adult are:—Irides clear yellow; bare skin round eye, bill, legs and toes lemon-chrome.

In the young:—Irides very pale; bill at base, legs and toes greenish yellow.]

633. Turturena delagorguei.

Z. Ngoye Hills (2).

[I have only seen this Dove in two localities—in the Ngoye Hills, where I obtained the pair secured, and on another occasion when I saw a solitary specimen in a thick patch of forest under Suel's Kop in the Woodbush of the Northern Transvaal. The two I shot in Zululand are undoubtedly a pair, for although the female was taken four days after the male, I saw her every day in the same tree where I had seen them on the first day, but until the fourth day was unable to get a sure shot. At the time I first noticed them the male was courting the hen bird, walking backwards and forwards along a branch, filling out his chest and cooing like an ordinary tame Pigeon.

In the male the irides are yellow; bill pale slaty; legs and toes crimson. The female has the irides yellow; bill pale slaty; legs and toes pale crimson.]

634. Turtur semitorquatus.

Z. Sibudeni, Jan. (2); Jususie Valley, Nov. (1); Umfolosi Station, July (2); **Tv.** Klein Letaba, Sept. (2); Legogot, Apl. (1); **P.** Coguno, June (3); Beira, Dec. (1); Tete, Sept. (1).

I should have expected the birds from Beira and Tete to be referable to *T. ambiguus*. There are examples from the last-named locality in the British Museum so named. But Grant's Tete bird has no trace of white on the under tail-coverts, and the abdomen is of quite as dark a slate-colour as in the Zululand bird. In these respects it differs from Kirk's Tete bird, which I suspect was really procured elsewhere.

["Ijuba" of the Zulus.

In working from the Cape northwards and eastwards I first noted the species at Sibudeni and the Jususie Valley in Western Zululand, afterwards finding it in every locality visited in Zululand, Natal, the Transvaal, and in Portuguese East Africa from Coguno to the Zambesi. Where found it was quite one of the commonest Pigeons, and after the harvest has been gathered in the native lands immense numbers congregate in the early morning and late afternoon to feed on the

fallen grain, and I have on many occasions shot five or six with one barrel. This Dove drinks regularly just at sundown. The species is not truly gregarious, moving about singly or in pairs and threes, only congregating in certain spots for feeding and drinking. The call is very similar to that of the domestic Pigeon.

The soft parts of an adult are:—Irides a narrow ring of orange-yellow; bare skin round eyes, lores, legs and toes crimson-plum-colored; bill dull black. In the young:—Irides nearly white; bill smoky black; legs and toes reddish brown.]

636. TURTUR CAPICOLA.

CC. Table Mt. slopes, Feb. (1); Knysna, Dec. (1); Z. Sibudeni, Oct. (2); Jususie Valley, Dec. (1); Umfolosi Station, Aug. (2); Tv. Wakkerstroom, Feb., Mch. (3); Zuurbron, Apl. (1).

637. TURTUR CAPICOLA DAMARENSIS.

Tv. Klein Letaba, Aug., Sept. (2); Woodbush, Dec., May (2); P. Coguno, June (2); Tete, Sept. (1); CC. Klipfontein, Apl. (3).

The Damara Turtle-Dove only differs from the Cape form in its paler colour; the white on the abdomen and forehead is more diffused and of a purer shade. The birds from Klein Letaba and Woodbush are clearly intermediate, as would be naturally expected. The Namaqualand birds are also intermediate, but differ slightly in tinge from both the described forms. The colour of the under parts is more slaty and less pink. These differences are hardly appreciable and do not, in my estimation, warrant subspecific separation. There is no appreciable difference in dimensions among any of the birds.

["Tortel-duif" of the Colonists.

The Cape Turtle-Dove is found commonly and was noted by myself at the Cape Peninsula, the Knysna, Natal, Zululand, the South-Eastern Transvaal, and one specimen was taken in the North Transvaal at Klein Letaba, where it overlaps T. damarensis and most probably interbreeds with it. It

is a very confiding species, frequenting the plantations and lands near homesteads and native kraals. In company with *T. semitorquatus* it visits cultivated lands in considerable numbers to feed on grain, and at sundown can be seen making for water. It can hardly be considered gregarious, although numbers are seen together, as it is noticed coming and going singly or in pairs.

The soft parts of an adult are:—Irides hazel; bill black; legs and toes pale crimson. In the young:—Irides whitish; bill smoky black; legs and toes brown washed with crimson.]

638. TURTUR SENEGALENSIS.

CC. Klipfontein, Apl. (1); Durban Road, Mch., Sept. (3); Z. Jususie Valley, Dec. (2); Tv. Klein Letaba, Sept. (3); Woodbush, June (2); P. Tete, Aug., Sept. (2).

["Isbulo" of the Zulus.

This species has been observed in Namaqualand, Durban Road, Zululand, the Eastern and Northern Transvaal, and at Tete on the Zambesi. In general habits it greatly resembles Turtur capicola, being found commonly in the cultivated lands like that species, but I have not observed it going regularly to water.

The soft parts of an adult are :—Irides hazel; bill black; legs and toes claret.]

639. ŒNA CAPENSIS.

CC. Port Nolloth, July (1); Tv. Woodbush, June (1); P. Tete, Aug., Sept. (5).

[This little Dove was observed in several localities, but was only taken in three. I have noticed it in addition at Durban Road, Legogot, Pietersburg, and Beira. It was not common anywhere except at Tete, generally a pair or so only being met with. At Tete it was, however, very common and could be seen any day in small parties of three to eight feeding on the ground in the native lands. It is a very confiding little bird and can be easily shot, but unless killed outright it often completely spoils itself when fluttering on the

ground. When flushed the flight is at first very erratic, but it is straight and fast when the bird is well on the wing.

The soft parts are:—3. Irides hazel; bill crimson-lake, apical half dark yellow; legs and toes crimson. A male from Tete has the bill entirely dark tomato-red. ? Bill blackish, otherwise as in male.]

640. Tympanistria tympanistria.

CC. Plettenberg Bay, Mch. (1); N. Illovo, Nov. (1); Z. Ngoye Hills, Sept., Oct. (4); P. Tambarara, Mch. (1).

[A Dove of the forests, never frequenting the ordinary bushveld or sparsely timbered country. I have observed it in the forests of the Knysna district, Zululand, Natal, Masambeti, near Beira, and Gorongoza, but I did not see it in the forests on the Woodbush Hills. Usually met with in pairs it appears to spend most of its time on the ground, where it finds its food. The call is a "coo," but somewhat different from that of the other Doves.

The soft parts of the adult are:—Irides brown; bill reddish brown; legs and toes dark crimson. In the young:—Irides paler, and the bill and legs and toes duller.]

641. CHALCOPELIA AFRA. (Plate I. fig. 1.)

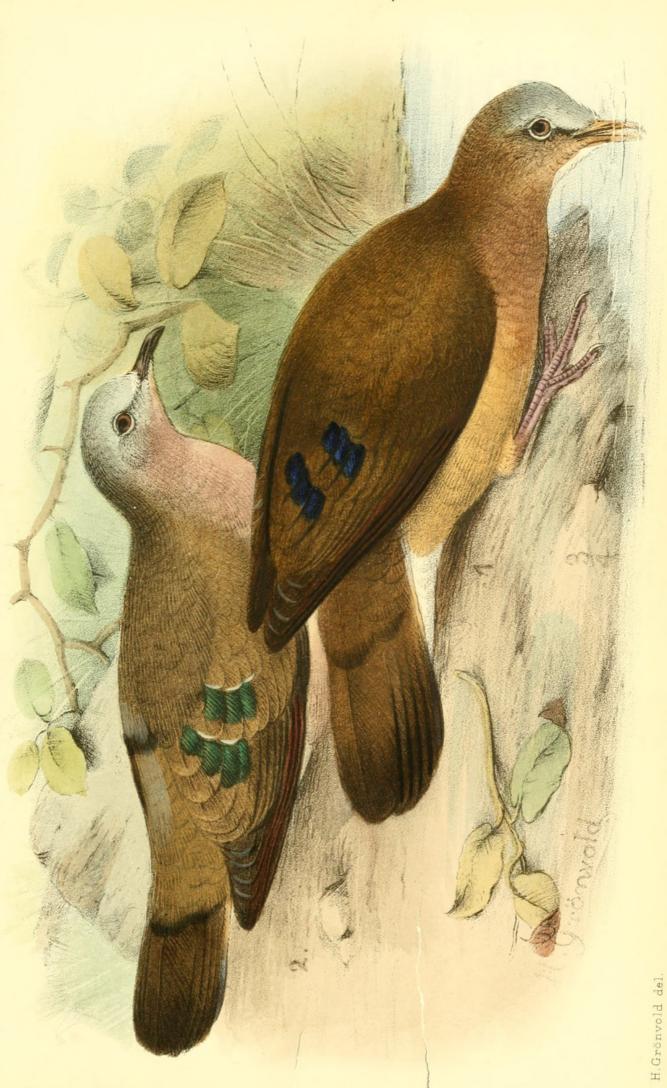
P. Tambarara, June (1 3).

Chalcopelia chalcospilos. (Plate I. fig. 2.) Reichenow, J. Ornith. 1902, p. 134.

Z. Umfolosi Station, Aug. (1); Hluhluwe Stream, Aug. (2); **Tv.** Klein Letaba, Aug., Sept. (4); Legogot, May (1); **P.** Coguno, June, Aug. (3); Masambeti, Nov. (1); Beira, Feb. (1); Tambarara, June (1); Tete, Sept. (2).

Until comparatively recently, all writers supposed that there was only one species of *Chalcopelia* in Africa; although the fact that some individuals had blue metallic spots on the wing-coverts and others green was well known, this was not considered a specific difference.

In 1901 Erlanger (Ornith. Monatsb. ix. p. 183) wrote that he was of opinion that the blue-spotted and green-spotted



forms were distinct species, the former occurring in forest districts and the latter in more open "acacia" country.

Erlanger assigned Wagler's name (Syst. Av., Columba, sp. 83, 1827) "chalcospilos" to the green-spotted form and Linnæus's (Syst. Nat. 12th ed. p. 284) to the blue-spotted. I am myself a little doubtful how far these names apply. Both seem to be founded on Brisson's "Turtur senegalensis." He describes the spots as "viridi-aureo splendentes in violaceum mutantes," and Wagler follows in almost the same words. Linnæus describes the spots as "violaceo-azureæ," but refers only to Brisson's description. However, perhaps it will be best to accept Erlanger's identification.

A little later Sharpe (Bull. B. O. C. xii. 1902, p. 83), Reichenow (J. Ornith. 1902, p. 134), Erlanger (J. Ornith. 1905, pp. 132-135), and Oberholser (P. U. S. Nat. Mus. xxviii. 1905, pp. 844-847) all described new species and subspecies of both the blue- and green-spotted forms.

The following key will perhaps make the present disposition of the genus a little clearer, though I have found it impossible to include the subspecies of *C. chalcospilos*:—

A. Wings with blue metallic spots.

(West Africa, and Nyasaland to the Zambesi.)

- b. Paler earthy brown above, below pale lilac, no ochraceous on the abdomen.
 - a¹. Bill and legs yellowish in the skin, throat much the same colour as the breast.....

C. abyssinica Sharpe. (Abyssinia.)

b¹. Bill and legs dusky in the skin (vinaceous in life), throat paling to almost white

C. delicatula Sharpe. (Upper Nile.)

B. Wings with green metallic spots, bill dusky in skin (dark red in life); no ochraceous wash on the abdomen ...

C. chalcospilos.

The following are the named subspecies of C. chalco-spilos:—

C. c. chalcospilos Wagler. Senegal.

C. c. erlangeri Reichw. Angola.

C. c. volkmanni Reichw. Damaraland.

C. c. caffra Reichw. South Africa.

C. c. acanthina Oberholser. Kilimanjaro.

C. c. somalica Erlanger. South Somaliland.

So far as I am aware, only the green-spotted form was hitherto known from South Africa. There is an example of the Blue-spotted Dove in the British Museum from the Zambesi, obtained by Meller, which agrees very well with Grant's single skin from Tambarara. Anyhow, the Blue-spotted Dove may be considered an addition to the fauna of South Africa.

["Umgwambasane" of the Zulus.

The Emerald-spotted Wood-Dove is commonly found in all timbered country, and is generally seen feeding on the ground amongst dead leaves or other rubbish. It is usually in pairs, although single specimens are often seen. It perhaps more commonly frequents the bush on the banks of rivers. The call is somewhat similar to that of *T. tympanistria*, but a difference in tone can be noted by one well acquainted with both species.

The soft parts of an adult are:—Irides hazel; bill dark red, tip yellow; legs and toes dull crimson.]

642. Haplopelia larvata.

of the Dutch.

CC. Table Mt. slopes, Jan. (1); Knysna, Jan. (3); Z. Sibudeni, Nov., Dec., Jan. (8); Ngoye Hills, Sept., Oct. (2); Tv. Zuurbron, Apl., May (3); Woodbush, Nov. (2). ["Goo-Goo" at the Cape. "Blad-duifjé" (Leaf-Dove)

This is essentially a Dove of the woods and forests, and I have found it in the forest on the slopes of Table Mountain, in the Knysna, at Sibudeni and the Ngoye Hills (Zululand), Zuurbron, Wakkerstroom district, and the Woodbush Hills, but it was not met with in Portuguese

East Africa. It is strictly a ground-bird, only pitching on trees and shrubs when alarmed. It is said also to breed on the ground, but I have never succeeded in discovering the nest. The call is "goo," about eight times repeated, the third or fourth note being highest in tone and the last two rather quickly repeated.

The soft parts of an adult are:—Irides plum-coloured; bare skin round the eye crimson; legs and toes dull crimson. In a specimen from the Cape Peninsula the leg and toes are red-brown; and in another from Zululand the irides are red. In the young the irides are yellow and the legs and toes reddish brown.]

645. Pterocles bicinctus.

Tv. Klein Letaba, Sept. (1); P. Tete, Aug. (2).

[I saw this Sand-Grouse at Klein Letaba and at Tete, while it occasionally visited certain dams near Pietersburg. These birds do not appear to be truly gregarious, they are generally found during the daytime lying up in sandy spots in pairs, sometimes three together. They always drink just on or after sundown, and then several are seen coming together, probably having joined company en route. At times they must drink later, as on the 3rd of September, 1907, I heard Sand-Grouse coming away from water at 10.30 p.m. Going to and from water they have a curious whistling call, and on rising after drinking, the wings cause that vibrating "whistle" peculiar to the Sand-Grouse.

The soft parts of an adult are:—Irides brown; bare skin round eyes yellow; bill yellowish horn-coloured.]

646. Pteroclurus namaqua.

CC. Klipfontein, Apl., May, June (9).

[Namaqualand is the only locality in which I have seen this species since the Central Cape Colony trip. Although Namaqualand is said to be its home, I found it far less plentiful there than in Central Cape Colony. Namaqua Sand-Grouse are distinctly gregarious and are partial to the sandy flats at any altitude. They drink just at sundown, and I

believe also at sunrise, not moving far from their restingplaces throughout the day.

The soft parts of a male are :- Irides brown; bare skin

round eye yellowish; bill slaty.]

647. Francolinus coqui.

Z. Umfolosi Station, June, July (5); Tv. Woodbush May, June (13); Klein Letaba, July, Aug., Sept. (4) Legogot, Apl., May (3); P. Coguno, Aug., Sept. (5).

["Shrimpy" of the Colonists. & "Ntendele,"

9 "Hwambi" of the Zulus.

The Coqui is essentially a "bushveld" Francolin, and does not usually inhabit open country. It consorts in small coveys of about half a dozen. The call is a harsh grating note, several times repeated, which might be described as "kunakuna-kuna," sharply pronounced, and is often mistaken for that of some kind of Rail and seldom placed by newcomers to the credit of the Coqui. This species is not plentiful in Zululand, where it is only to be found in the low country; but it becomes commoner to the northwards (Inhambane and the Northern Transvaal). It was not seen or heard in the country lying between Beira and the Zambesi. It is very partial to disused native lands and the bases of kopjes. When flushed it seldoms flies far, and can always be marked down, but as it is a great runner it cannot always be again found. A female has the iris brown; bill yellow at the base, black at the tip; feet yellow.]

648. Francolinus sephæna.

Tv. Klein Letaba, July (1); P. Coguno, Aug. Sept. (3).

FRANCOLINUS GRANTI.

Francolinus granti Reichenow, Vög. Afr. i. p. 496.

P. Tete, Aug. (1 ♂, 1 ♀).

I am inclined to identify the pair of Crested Francolins obtained at Tete with F. granti. They are distinctly smaller than the examples of undoubted F. sephana from Coguno, wings 146 \Im , 143 \Im , against 154 \Im and 149 \Im , and the under tail-coverts are plain ochreous and not barred as in F. sephana; but, on the other hand, the triangular chestnut

spots are not confined to the neck, but extend to the breast as in *F. sephæna*. Finally, the lower breast and abdomen are much paler than in either *F. sephæna* or *F. granti*. *F. granti* was first described from Unyamwesi; it is found throughout East Africa, both German and British, but does not seem to enter Nyasaland. It has not been previously recorded from South Africa.

["Noygelele" of the natives between Beira and the Zambesi.

Smith's Francolin is one of the most difficult of the genus to secure, and without a good dog is seldom seen. It inhabits the denser thickets and the masses of vegetation and reeds on river-banks. I have often seen it feeding at the edge of the native gardens, but on the first alarm it runs into the long grass and thickets, and is extremely difficult to flush. When flushed it rises rapidly and is very strong on the wing, requiring straight and quick shooting to bring it down. This Francolin will often, on being chased by a dog, take refuge on the big limbs of the forest-trees, and until I discovered this habit I lost many flushed birds, thinking that they had gone away. I have never seen this species otherwise than in pairs, always cock and hen, and it has not, to my knowledge, any call. Nowhere in the south do I think it common, but northwards, especially on the Zambesi, it is quite plentiful.

The soft parts of the adult are:— 3. Irides dark brown; bill black; legs and toes red. 2. Irides brown; bill almost black; legs and toes red.]

FRANCOLINUS KIRKI.

Francolinus kirki Reichenow, Vög. Afr. i. p. 497.

P. Masambeti, Nov. (1).

This example, an adult male, was identified and recorded by Claude Grant (Bull. B. O. C. xxi. 1908, p. 66) as new to South Africa. It matches examples in the British Museum from the river Ruo in Nyasaland, from the Rovuma River (the type of F. rovuma G. R. Gray), and from Dar-es-Salaam, and is doubtless identical with F. kirki described by Hartlaub

from Zanzibar Island. It can at once be distinguished from *F. sephæna* and *F. granti* by the chocolate-brown streaks on the abdomen.

["Nygelele" of the Ntebis.

Kirk's Francolin was only taken in one locality and was there by no means plentiful. It is always found in pairs, and in habits exactly resembles F. sephæna.

The soft parts are :—Irides dark brown; bill black; legs and toes red.]

649. Francolinus Africanus.

CC. Klipfontein, June (3); Tokai, Feb. (2); Tv. Wakkerstroom, Mch. (2).

The specimens from Namaqualand have the chin and throat completely black-spotted, while those from the Cape Division have the central area plain white and only the sides and throat spotted, or, perhaps more correctly, occillated with white on black.

The birds from Wakkerstroom are again quite different-looking from those of the Cape; they are much more ochreous in general tone, and the lower breast and abdomen instead of bearing the white ocellations on black, so characteristic of the true Cape Greywing, are of a pale fulvous irregularly banded with brown.

I should certainly be disposed to recognise this form as a distinct subspecies, but the series in the British Museum is very incomplete, while the members of this genus are notoriously variable, probably on account of their sedentary habits.

Of the two birds from Wakkerstroom, one is a young male of the year, the other an adult female; a male from Potchefstroom, in the British Museum, agrees with this very well, while an example from the Drakensberg in Natal comes nearer the Cape form; the series from Deelfontein, collected by Grant and Seimund, are all quite typical.

["Greywing" of the Colonists.

This is strictly a bird of the mountains, and, except in the Cape Peninsula, is never seen in country devoid of stones.

It loves the rough boulder-strewn sides and tops of the mountain-ranges, and often congregates in coveys of many dozens. In the early morning and late afternoon the well-known call of "ku-klik, ku-kluu" is heard, being made by the cock perched on some large rock. The "Greywing," like most other Francolins, is an extremely difficult bird to flush. I have myself, without a dog, carefully beaten out patches of country where I have seen birds alight without flushing them. I have not observed this species in many localities outside of the Cape Colony, except in the Wakkerstroom Highlands, and there it was by no means common.]

650. Francolinus Levaillanti.

CC. Plettenberg Bay, Feb. (1); Z. Sibudeni, Nov., Dec., Jan. (4); Jususie Valley, Dec. (1); Tv. Wakkerstroom, Mch. (5); Zuurbron, May (2); Woodbush Hills, Nov., Dec. (3); Legogot, May (2).

Two young birds from Wakkerstroom—males, dated March 22nd—only differ from the adults in the black and white patch on the lower throat and the lines on the side of the head, which hardly shew as yet.

["Redwing" of the Colonists. "Etandale" of the Zulus. This Redwing, unlike F. shelleyi, is a Francolin of the high uplands, especially open grass country devoid of bush. It is seldom seen in coveys of more than four or six, and often in pairs only. The call is the same as that of the Greywing, but stronger and clearer, and when once the difference is noted they cannot be easily confused. It was fairly common on all the high lands near the Knysna coast-board, the grass-lands of the Wakkerstroom Highlands, the high land above Legogot, and the N'Kandhla (Sibudeni) ridges, but was rather scarce on the Woodbush Hills.]

653. Francolinus shelleyi.

Z. Hluhluwe Stream, Aug. (1); Tv. Klein Letaba, Sept. (1); Woodbush, Jan., May, June (14); Legogot, May (2); P. Coguno, June (1).

Young birds taken at Woodbush, on May 17 and June 11,

hardly differ from the adults except in size, but the markings are not so distinct.

[This is a Francolin of the bushveld, and is never seen in the uplands; in fact, although F. shelleyi and F. levaillanti occur in the same localities they do not run together, F. shelleyi occupying the lower bush-covered country and F. levaillanti the bare uplands. Only small coveys of at most half a dozen were seen. The flight is perhaps stronger and more rapid than that of the Redwing, but the call is scarcely distinguishable. This Francolin is particularly plentiful in the Woodbush, at Legogot, and in Inhambane. In Zululand I did not observe it south of the Hluhluwe Stream. I do not think it is known in the country between Beira and the Zambesi.]

655. Francolinus capensis.

CC. Tokai, Feb. (1); Durban Road, Sept. (1).

["Fazant" of the Colonists.

I have only observed the "Cape Pheasant" in the flats and mountains of the Cape Peninsula. It frequents thick bush and scrub, and except in the early mornings and late afternoons, when it is found in the open parts, it is not easy to obtain. It is always in "coveys" of half a dozen or more. The call is harsh and loud, and can be heard at sunrise and sunset, seldom throughout the day.

The soft parts of an adult are:—Irides dark brown; bill dull vermilion, culmen almost black; legs, toes, and spurs dull vermilion.]

656. Francolinus natalensis.

Tv. Woodbush, May (1?).

[The "Natal Pheasant" is fairly plentiful in the Woodbush and at certain spots near the Klein Letaba, but I have not seen it elsewhere. It is essentially a bush-Francolin, frequenting only forest, thick scrub, and bush on hill-sides and in kloofs. It is an exceedingly difficult species to put up, running and skulking in front of a dog, and finally rising well out of shot, if rising at all. The call is harsh and

loud, and might be easily mistaken for that of Pternistes nudicollis.

The soft parts of an adult are:—Irides brown; bill orangered; legs and toes bright red.]

657. Pternistes nudicollis.

CC. Knysna, Feb. (1 \copp); Plettenberg Bay, Mch. (1 \copp juv.); Tv. Legogot, Apl. (1 \copp).

The example from Legogot is rather different-looking from that from Knysna. Owing to the increased white on the centres of the feathers of the breast it is altogether a lighter-looking bird.

There is only one example of this species in the British Museum with definite data; this is a male obtained by Barrett at Lydenburg; in the white striping it is intermediate between the Legogot and Knysna specimens.

I think that it would be inadvisable to come to any definite conclusions until more material has come to hand for comparison.

[This is also a Francolin of the bush, frequenting the rough scrub and fine bush in the kloofs and river-valleys and the thicker parts of forest-country. In the Knysna District I have seen coveys of this bird of a dozen to twenty. The call is harsh and loud, and is generally heard in the mornings and evenings.

The soft parts of an adult are:—Irides brown; bare skin round eyes, lores, and throat dull brick-red; bill much brighter; legs and toes red. The young bird has the irides brown; bare skin round eyes, cere, and throat faintly tinged with red; bill horn-coloured; legs and toes dull red.]

658. Pternistes humboldti.

P. Coguno, June, July, Aug. (5 ♂, 2 ♀); Beira, Nov., Dec., Feb. (3 ♂, 3 ♀, 1 ♀ juv.).

Four eggs from Coguno taken in August.

The young bird—a male, dated December 18, from Beira—differs chiefly from the adult in the absence of the black patch on the abdomen; this is mottled black and

white, the feathers being white in the centre with irregular black edges; the white ring round the bare throat-patch is also variegated with black shaft-marks.

["Squari" of the Machopee and Machangaan, and

"Iquari" of the Gorongozas and Nyungwis.

I have only seen this species in the Portuguese country, where it is very common. It is, perhaps, more a species of the forest than of the open bushveld, although in many parts, as, for instance, in the Inhambane District, it is found everywhere. It congregates in small coveys up to about a dozen, although pairs are often seen, and even single old cocks. In the early morning and late afternoon they visit native clearings, and at all times are easily flushed with a good dog. The flight is heavy at first, but very strong and fast when the birds are well on the wing, and they generally fly too far to be marked down. I believe that only the cock birds call, and they invariably do so from a tree or large bush. When pointed or followed by a dog they will jump into a bush or tree and completely mystify the animal. The "Iquari" is a great runner, and I have many times seen it, when driving for small buck, run past me without attempting to rise. The call is loud, and can be heard at a considerable distance; it can only be described as "quari," many times repeated. It is from its call that natives name it. It apparently breeds somewhat early, and probably has two or three broods in the year, as I have taken eggs in August and shot young birds in December. The four eggs brought home were found by a native, the nest being a scratched-out hollow in the middle of a thicket filled with leaves and grass. The whole clutch was not brought to me, but the "boy" said they were ten in number.

The coloration of the soft parts is as follows ;—Juv. Irides brown; bare skin of head and neck dull brick-red; bill horn-coloured; legs and toes bright red. Adult. Irides brown, bare skin round eyes, lores, and throat bright red; bill bright red; blackish line on culmen; legs and toes bright red, spurs dusky. The blackish line on the culmen is not constant.]

660. COTURNIX AFRICANA.

CC. Klipfontein, June 12 (1); Knysna, Apl. 2 and 11 (2); Z. Sibudeni, Nov. 13 to 24, Dec. 20 (7); Ngoye Hills, Oct. 19–23 (3); Tv. Woodbush, Feb. 5 (2).

Some of these Quails, especially a male from Knysna dated April 11, have very pale cheeks and perhaps shew that there has been some admixture of blood with the European bird; but they are all smaller, the wings averaging about 97 mm. against 105, the average in the European form.

["Esgwasha" of the Zulus.

The African Quail has been taken or noted from most localities visited. At certain seasons this Quail is migratory, notably in the spring (October and November), and I have in these months seen enormous numbers on the coast-line of Natal and Zululand. Each flight remains for a few days, and then, presumably, moves northwards. Usually flushed in pairs, the bird is most commonly found in cultivated lands and sugar-cane plantations.

The soft parts of an adult male are:—Irides rich brown; bill dark horn-coloured; legs and toes yellowish. In the female the irides are pale brown, and the bill somewhat lighter.]

661. COTURNIX DELAGORGUEI.

Z. Umfolosi Station, July 1 (1); Tv. Woodbush, Dec. 28 to Jan. 31 (8).

Mr. Grant's field-notes confirm the belief which I expressed in the 'Birds of South Africa,' that this Quail is only found in numbers in South Africa during the summer months, especially between December and February.

[In two localities only have I seen this Quail—at Umfolosi Station, Zululand, where a single pair was found and the male taken; and at Woodbush in the Northern Transvaal. Although some eleven months were spent in the Northern Transvaal, it was not till December 28 that the Quail was seen, when a pair or so were flushed, but throughout January it was very plentiful, only an occasional pair being

observed after that month. These were undoubtedly on migration, but whether they left for the north or south it was impossible to say.

The soft parts of an adult are:—Irides rich brown; bill black; legs and toes yellowish. In the male from Zululand, which is immature, the base of the lower mandible is paler horn-coloured. In the female the irides are pale brown, and the bill somewhat paler.]

662. Excalfactoria adansoni.

Z. Umfolosi Station, July 6 (1♀); P. Masambeti, Nov. 15 (1♂); Beira, Dec. 27 (1♂).

A rare species, only known from one or two localities. Sheppard (J. S. A. O. U. v. p. 48) found it not uncommon near Beira.

[" Uguqu" of the Zulus.

This is by no means a common bird, and, in addition to the two localities where specimens were taken, I have only noted it in the Ngoye Hills. At Umfolosi only a single pair were seen, the female being secured; and on the flats near Beira and at Masambeti only some half a dozen pairs were observed altogether. This species, like the other Quails, is always flushed in pairs, and usually frequents grassy plots and hillsides, while I have not seen it in cultivated lands.

The soft parts of an adult male are :—Irides crimson-lake; bill black; legs and toes orange-chrome. The female is similar.]

663. Numida coronata.

Z. Umfolosi Station, June (1); Tv. Klein Letaba, July (2); Woodbush, June (2).

665. Numida mitrata.

P. Coguno, June (1); Tambarara, Mch., Apl. (2); Tete, Sept. (1).

The Guinea-fowl of Portuguese East Africa is certainly nearer N. mitrata than N. coronata; the helmet is more cylindrical and less flattened and also more upright, though

hardly vertical and conical as it is in the Zambesi bird in the British Museum obtained by Sir John Kirk.

A young bird from Tambarara, dated March 16, and sexed a female, is at an interesting stage. The crown, which just shews the commencing helmet, is covered by dark brown down with a narrow lighter band on either side. The bill is quite black and the throat whitish; the lappets can just be seen sprouting, while round the lower part of the neck there are a good many lancet-shaped feathers edged with dusky. I have seen no traces of these in the adult. Altogether it is a very different-looking bird.

["Tarentaal" of the Dutch. "Mpongele" of the Zulus. "Mpongele" or "Timongele" of the Machopees and Machangaans. "Nkanga" of the Ntebis, Gorongozas, and Nyungwis.

I have seen or taken this species in every locality visited in Eastern and East-Central South Africa. is found equally on the high and low veld, but is far more plentiful in the latter, always, however, keeping to country that is more or less bushed. In the mornings and late afternoons the birds are found in flocks of from fifty to sixty on the natives' lands, where they can generally be approached within shot; during the greater part of the day they rest in the forests and thickets. They are also a certain find just at sunrise and again at sundown, when they line down to the rivers to drink. Guinea-fowl apparently keep in flocks throughout the year, so that it is difficult to say in what month they breed, and at no locality was I able to secure eggs, although immature birds were shot in most months. Both the Dutch and Zambesian names are derived from the call, the latter being especially expressive.

In the young birds the coloration of the soft parts is very different from that of the adults. The young have the irides almost white, all the soft parts of the head and neck being dull slaty, and the beak very dark also, entirely lacking any red colour. In the adults the irides are dark brown, bare skin round the eyes almost emerald-green, rest of bare skin of head and neck below the eyes and the base of wattles much duller and darker; throat whitish; round nostrils, crest,

crown of head, and tip of wattles bright waxy red; tip of crest horny red; bill, at the base dull red, tip pale horn-coloured; a black line down the nape of the neck.

Judging from specimens' I have had in captivity, as the soft parts assume the red colouring, so do the eyes darken.]

666. GUTTERA EDOUARDI.

P. Coguno, June (4); Beira, Dec. (2). Eight eggs taken December 9, at Beira.

["Mpongele" of the Machopees and Machangaans.
"Ntoli" of the Ntebis.

I have only seen the Crested Guinea-fowl at Inhambane and Beira; it was reported by the natives to be found at Gorongoza, but I did not myself come across it. It is much more a bird of the forests than Numida coronata, and I have never known it to visit native lands. At Inhambane I have seen flocks of quite twenty individuals, especially when out with natives hunting the Livingstone Antelope. Many are shot by the natives on these hunts with bows and arrows, when they endeavour to run away through the bush without rising. Even in the breedingseason they are gregarious, and on the occasion that I secured the nest I saw three, two of which I got, both being females. I took a nest with eight eggs on the 9th of December, 1906, at Beira, in a thick patch of forest; it was composed merely of dead leaves, and was situated in thickish undergrowth under an overhanging branch of a shrub, while was very cunningly concealed, as it was impossible to discover it until the hen bird rose on being put out by my dog. At the time I was unable to get a shot at her, and when later in the day I went back, after carefully marking the spot, I was unable to make her out sitting on the eggs, although I stood within a foot or so.

The soft parts of an adult are:—Irides dark crimson; bill slaty at base, pearly at tip; bare skin on head and neck dull slaty, except for a loose patch of skin immediately under the crest on the nape of neck, which is of a dull white and merges into the slate-colour of the neck on each side under the ears; legs and toes blackish slaty.]

667. Turnix hottentotta.

CC. Durban Road, Mch., Sept. (3); Plettenberg Bay, Mch. (3).

One of the females from Plettenberg Bay, dated March 23, has only very slight traces of spots on the breast, and can hardly be distinguished from *T. nana*.

["Button Quail" of the Colonists.

This Hemipode was only noted from the Cape Peninsula and the Knysna district; further east and north its place is apparently taken by *T. nana*, although neither can be distinguished from the other on the wing. It was fairly plentiful in the rough grass and short scrub on the flats at Durban Road, but was by no means common in the Knysna District, where it was occasionally flushed from the "fine bush" on the hill-sides. In general habits it exactly resembles the other Hemipodes, and is always found in pairs.

The soft parts of an adult are:—Irides yellow; bill slaty; legs and toes whitish flesh-coloured.]

668. TURNIX LEPURANA.

Z. Umfolosi Station, June (2); Tv. Klein Letaba, Sept. (1); P. Masambeti, Nov. (1).

[This is the least common of the Hemipodes, and has only been met with on the Eastern and East-Central sides of South Africa. It generally inhabits the long grass on the hill-sides and the outskirts of native lands, often being flushed in the numerous footpaths. It is always in pairs. The flight is not fast, but is erratic and of so short a duration that after being flushed once it is difficult to find again, as it lies very close and often takes to running. On the wing it can often be distinguished from the other Hemipodes by the lighter coloration of the upper side of the wings. I have not heard this bird call.

The soft parts of an adult are:—Irides white; bill slaty: legs and toes whitish flesh-coloured. In the immature bird the lower mandible is somewhat lighter in colour than the upper.]

669. TURNIX NANA.

Z. Sibudeni, Dec. (1); Umfolosi Station, June, Sept. (4); P. Beira, Dec. (1).

["Esgwacha" of the Zulus.

This species was only observed on the eastern side of South Africa, and where observed was fairly common. In habits it resembles *T. lepurana*, frequenting similar situations, and being always flushed in pairs.

The soft parts of an adult are:—Irides bluish white; bill slaty; legs and toes whitish flesh-coloured. In a younger specimen the irides are white.]

671. CREX CREX.

Tv. Woodbush, Nov. (1?).

[I have noted the Corn-Crake in two localities only—in the Woodbush Hills, North-Eastern Transvaal, where two individuals were seen, one being secured, and three others were observed during December and January; and on the flats inland from Beira, but none were secured there, although one was shot and lost. I believe this bird does not call in its winter-quarters.]

675. SAROTHRURA LINEATA.

Tv. Zuurbron, May (1); Woodbush Hills, Dec. (1).

A rare species in collections. There are only two South African examples in the British Museum. I am not aware that this species has been previously recorded from the Transvaal.

[This species is probably quite common in most localities, but owing to its skulking habits it is extremely difficult to secure. All I saw were flushed by my dog in long grass and sedge in marshy places, but as a rule they rise so close, fly only a very few yards, and drop instantly out of sight, that either one has to blow them all to pieces, which has happened to me on several occasions, or let them go altogether, as I have never been able to flush them a second time. I have noted it also from Umfolosi Station and from Beira.

The soft parts of an adult are: - Irides brown; bill brown,

paler at base of lower mandible; legs and toes fleshy brown.]

680. LIMNOCORAX NIGER.

Z. Umfolosi Station, July (1 ?).

["Sosobusi" of the Zulus.

A fairly common Rail in many localities. I have observed it on the lagoons at Umfolosi, Zululand, in the low veld of the Transvaal, the Inhambane district, and the country inland from Beira and Gorongoza. Essentially a bird of the marshes, it is difficult to obtain, and even when shot cannot always be recovered owing to the soft ground it inhabits. It is often seen in pairs, the actions being similar to those of the European Moor-hen. The cry is a single note, "krak," frequently heard when the bird itself is invisible.

The soft parts of an adult are:—Irides rich brown; eyelid pale tomato-red; bill bright greenish yellow; legs and toes pale tomato-red, nails raw umber.]

685. Fulica cristata.

CC. Durban Road, Sept. (2); Tv. Wakkerstroom, Apl. (2).

["Bles hunner" of the Colonists.

This Coot has been observed in every locality visited where suitable ground occurs, from the Cape northwards. In many places where there are extensive vleis filled with dense vegetation, they are very common, but so cunningly do they slip away, often diving and hiding in the vegetation under water, that it is impossible to shoot them. In these situations they breed, but I have never succeeded in finding a nest.]

686. Podica Petersi.

CC. Keurboom River, Plettenberg Bay, Mch. (1 ♀); Z. Umzinele River, Aug. (1 ♀); Ngoye Forest, Sept. (1♀).

As all the specimens taken are females, they afford no assistance towards elucidating the curious variation in the plumage of these birds, discussed by me in in the 'Birds of

South Africa,' vol. iv. p. 275. Nor is much light thrown on the subject by the series in the British Museum. All the South African specimens, except one, match Grant's females and are sexed "female" where there are any data given. The one exception, which is also without data and is merely labelled "S.E. Afr.," is in the plumage described as that of an adult male.

[I have seen Peters's Fin-Foot in three localities, in all of which I secured specimens. It frequents deep narrow streams and rivers well overhung with trees and bushes and with thick vegetation along the banks. In habits it is a great skulker, endeavouring to escape observation by diving and keeping to the thick vegetation and fallen dead trees. It swims low in the water like a Cormorant, the base of the neck and shoulders being as a rule submerged. When one is on the wing crossing from river to river, the flight is extremely fast and straight, resembling that of Teal, but more rapid. This individual also dived straight under the water with hardly any slacking of the speed. The call is a sharp loud and clear cry, somewhat similar to that of the River-Cormorant, but more approaching a shriek. It was its call that first drew my attention to the bird on the Umzinele River. On each occasion that I saw the birds in Zululand there were a pair, but I was only able to secure one of them. The specimen from Plettenberg Bay was shot up the Keurboom River and was apparently solitary.

The coloration of the soft parts is as follows:—Irides silvery brown; bill fleshy at base and on the lower mandible; legs and toes rich orange, nails flesh-coloured.]

690. Otis Ruficrista.

Tv. Klein Letaba, July, Aug. (4 3, 3 2).

["Bush Knorhaan" of the Colonists.

This is strictly a Knorhaan of the "bush-veld," and is always found in the more thickly wooded parts, such as extensive patches of mopani. It is generally observed in pairs, and when flushed rises rapidly. The flight is remarkably fast and erratic, making difficult though pretty shooting. This species has a curious habit of running along the numerous native

footpaths, and many fall victims to the traps set in these places for cats and mongooses. The only call I have heard is low, which, however, is audible several hundred yards away; the cry is very deceptive, as it often sounds close when the bird is really quite a distance off. This Knorhaan was very plentiful at the Klein Letaba, and several pairs were seen near Coguno in the Inhambane district; but I did not observe it anywhere from Beira northwards.

The soft parts of an adult are: - Irides dark hazel; bill blackish horn-coloured, yellowish at the base and on the lower mandible; legs and toes dirty dull yellow.]

692. Otis afroides.

Tv. Pietersburg, Mch. (1 3).

["Cackling Knorhaan" of the Colonists.

I have only seen this Knorhaan in the Zoutpansberg district of the Transvaal, where it inhabits the high open uplands which extend for many miles around Pietersburg. It is quite the noisiest of the Knorhaans; on being disturbed it flies round in a wide circle with measured beats of the wings, and with the feathers of the head and nape puffed out, calling loudly "kakketeekak-kak-kak," continually repeated. In the early morning and late afternoon it often calls when on the ground, but the cry is then generally confined to the single syllable "kak." When calling on the ground the head is jerked back and the feathers of the head, especially of the crown, successively more fully raised each time the cry is uttered.]

697. Otis Melanogaster.

Z. Jususie Valley, Dec. (1); Umfolosi Station, June, July (9); Somkele, Aug. (2); Tv. Klein Letaba, July, Aug., Sept. (6); Legogot, Apl. (1); P. Masambeti, Oct. (1). ["Silent Knorhaan" of the Colonists. "Efumba" of the

Zulus. "Gundia" of the Ntebis.

The Silent Knorhaan was found very common in the coast country of Zululand and in the low parts of the Transvaal, and it was fairly abundant at Legogot. I only once saw it on the high veld of Zululand, and it was by no means common at Beira, and I did not observe it in the Zambesi country. Two or three pairs were observed in the Inhambane district. This Knorhaan is certainly a bush-country bird, never being seen on the high grassy uplands. It is always in pairs, and is very partial to the great dry vleis filled with long grass. On being flushed out of shot, it does not fly far and can nearly always be found again. The flight is slow and floppy, and when the bird rises within shot it is not easily missed. In Zululand it seemed very fond of locusts, and could be seen in vast numbers following the swarms, often becoming so gorged that it could hardly fly and preferred to run and hide. This bird is truly called "Silent," as I have never heard it call.]

700. Otis Barrowi.

Z. Umfolosi Station, July (1 3).

["Gagalu" of the Zulus.

Barrow's Knorhaan was only once observed, at Umfolosi Station, where a pair were seen and the male secured. When on a short trip a few miles north of the Hluhluwe Stream for wild dogs I saw it in quite fair quantities on all the grassy hill-sides, but it was so wild that no specimens were taken. It appears to frequent the long grassy slopes sparsely dotted with small shrubs and trees, and was generally put up in threes. I did not hear this bird call either on the wing or on the ground.]

702. ŒDICNEMUS CAPENSIS.

CC. Plettenberg Bay, Mch. (3); Z. Umfolosi Station, July (2); Tv. Wakkerstroom, Feb. (1); Klein Letaba, Aug. (1).

["Dikkop" of the Colonists.

This species was common at Plettenberg Bay, and at Umfolosi in Zululand, but not very plentiful at either Wakkerstroom or Klein Letaba. I also saw it in the Cape Peninsula, but was unable to secure specimens. It is quite a nocturnal bird, resting throughout the day in the hollows and small valleys, each bird lying on the shady side of tufts of grass or small scrub. Several are always found together,

and I have noticed that they are invariably in the same spots day after day unless greatly disturbed. On being flushed they often utter a single clear whistle. They seldom fly more than a hundred yards or so, when they alight and run to cover. It is, however, difficult to approach them within shot when they have once been disturbed.

Irides and eyelid yellow; bill black, yellow at base; legs and toes greenish yellow; blackish on the front of the tarsi and the upper surface of the toes.]

703. ŒDICNEMUS VERMICULATUS.

P. Beira, Jan. (1).

["Mtoti" of the Ntebis.

I have seen this Thick-knee only once, and that was in the flat country covered with stretches of forest seven miles from Beira, on the railway. Its small size and darker coloration as it rose at once shewed me that it was a Thickknee I had not previously seen, and after following it up for some distance I was lucky in getting in a very long, fatal shot. It was solitary.

The coloration of the soft parts were:—Irides and eyelids pale yellow; bill black, yellowish at base; legs and toes greenish yellow.]

705. Cursorius rufus.

Tv. Wakkerstroom, Mch., Apl. (5).

[I have not noticed this species elsewhere than in the locality where the specimens were obtained. There it was fairly plentiful, and was always observed in threes or fours, frequenting barren open stretches practically devoid of any vegetation. The cry and flight are similar to those of C. temmincki.

The soft parts of an adult are:—Irides brown; bill nearly black; legs and toes white enamelled.]

706. Cursorius temmincki.

Z. Umfolosi Station, July 2 and 6 (2).

["Isibongo" of the Zulus.

I noticed Temminck's Courser in the Klein Letaba,

the Inhambane district, Beira flats, and Tete, besides the Umfolosi Flats, whence specimens were obtained. I have only seen it in pairs, and it is generally found frequenting more or less open places where the grass has been burnt off. The flight is somewhat erratic, and it usually flies some two hundred yards, when it settles and runs; occasionally, however, it goes right away. On being flushed it utters a single sharp note several times repeated. On the veld it can be easily distinguished from *C. rufus*, not only by its smaller size, but by the rufous and black on the belly, which can be seen for a considerable distance when the bird is facing the observer.]

707. RHINOPTILUS AFRICANUS.

CC. Klipfontein, Apl. (1).

[This Courser is apparently always found in dry desert country, as I have observed it only in Namaqualand since the termination of the Deelfontein trip. Even in Namaqualand very few were seen.]

709. Rhinoptilus chalcopterus.

P. Tambarara, May 27 (1).

[I have only twice noted this Courser—once in Beira Harbour, and when the specimen was taken in Gorongoza. This was put up on the main road in open forest country; it was at first observed running up the road, and on being approached rose and was shot. In flight it is very similar to Stephanibyx coronatus, and might by a casual observer be overlooked for that species.

The soft parts are :—Irides brown; eyelid dark yellow; base of bill and legs dark coral-red.

712. GALACTOCHRYSEA EMINI.

Claude Grant, Bull. B. O. C. xxi. 1908, p. 93.

P. Tete, Sept. 16 (1 ♀).

This bird was previously obtained on the Zambesi by Boyd Alexander; he procured examples at Mesanangwe and Zumbo in 1898.

[The only specimen sent was shot sitting at the edge of the water on a sand-bank in the middle of the Mazoe River, and until I picked it up I did not recognise it as being a Pratincole. It was solitary, and I have not seen the bird on any other occasion.

The soft parts are:—Irides hazel; base of bill, legs, and toes tomato-red.]

713. ACTOPHILUS AFRICANUS.

P. Beira, Dec. (1).

[I have only observed this Jacana on the eastern side of South Africa; notably on the lagoons at Umfolosi in Zululand, on the Tsende River in the low country of the Eastern Transvaal, in the Inhambane district, and the lakes on the flats inland from Beira. It is usually seen running about on the half-submerged grass and water-plants, sometimes solitary, more often in pairs. The flight is slow and close to the surface of the water, the long legs being held behind. The cry is a single note which may be described as "zwit," uttered both on the wing and when settled, accompanied each time by a slight fleck of the wings.

The soft parts are:—Irides dark brown; forehead and bill lead-blue, tip of bill greyer; legs and toes slate-coloured.]

716. Lobivanellus lateralis.

Z. Umfolosi Station, Aug. (3).

[I have observed the Wattled Plover at Umfolosi in Zululand; a pair was seen on the banks of the Biashispla, North-East Transvaal, on the 20th of September, 1905; while it was common in pairs and threes on all the sandbanks in the Zambesi River in August 1907, on my trip from Tambarara to Tete. Although I was at Umfolosi from June, this Plover did not make an appearance till August, when the three secured were observed, no others being seen afterwards. The flight is slow and Peewit-like, often encircling the intruder like that of Stephanibyx, but it is always out of gunshot. I have never observed this Plover away from water.

The soft parts of an adult are:—Irides pale grey; eyelid yellowish; lores and bill greenish yellow, tip of bill black; upper wattles dull red, lower lemon-chrome; legs and toes greenish yellow.]

719. HOPLOPTERUS ARMATUS.

Tv. Klein Letaba, July, Aug. (2); P. Tete, Aug. (1 imm.).

[I have only seen this species in the low country of the Transvaal, in Beira Harbour, and near the Zambesi on the Mazoe and Luenya Rivers. It is generally observed in pairs; the cry is sharp and clear, and exactly resembles the clink made by striking a piece of iron on a stone. The first time I heard the call on the Klein Letaba I thought that it was the sound of a native hammering his assegai straight, and it was many seconds before I realized that it was the call of this Plover.

The irides are crimson-lake; the beak, legs, and toes black.]

720. Stephanibyx coronatus.

Z. Umfolosi Station, July (3).

["Kiewitje" of the Colonists.

The Kiewitje is most commonly found in high country and always frequents open plains or grass-lands. I have observed it in Namaqualand, near Pietersburg, in the high country at White River, and on the flats at Umfolosi Station, Zululand. At the last locality it was found consorting with the following two species. It is by no means shy; generally on being disturbed it flies round in circles, often well within gunshot, and at the same time advises the countryside that there is an intruder about. The colonial name is derived from the call.

The soft parts of an adult are:—Irides yellow; bill dull crimson, tip black; legs and toes red.]

721. STEPHANIBYX MELANOPTERUS.

Z. Umfolosi Station, June, July (7).

[This bird was very common on the Umfolosi Flats, being found in company with S. coronatus and S. inornatus, both of which it resembles in general habits and cry.

The soft parts are :—Irides pale yellow; base of bill and legs dark crimson.]

722. STEPHANIBYX INORNATUS.

Z. Umfolosi Station, June, July (2); P. Coguno, June (1).

This is a rare, or perhaps little noticed, species in South Africa. The only South-African example in the British Museum is one given to Seebohm by Mr. H. Millar, of Durban. It had been once previously obtained by Wahlberg in "Caffraria," and was described by Sundevall under the name of C. frontalis.

[This Plover in life exactly resembles S. melanopterus, and, except for its smaller size, which is hardly noticeable, it cannot be distinguished from that species. I have noted it from the Umfolosi Flats, where it was fairly common; from the Inhambane district, where it was occasionally observed on open spots on the Inyamatanda and Inyasuni Rivers; while either this species or S. melanopterus was once or twice seen on the Beira flats.

The soft parts are like those of S. melanopterus, but the bill and legs are very much darker]

728. ÆGIALITIS TRICOLLARIS.

CC. Durban Road, Sept. (1); Knysna, Apl. (1); Z. Umfolosi Station, Aug., Sept. (2); Tv. Klein Letaba, July, Sept. (3); Pietersburg, Mch. (1); P. Tete, Sept. (1).

" Amaseya" of the Zulus.

The Three-banded Plover frequented every river, dam, and pool of water in every locality visited. Although several may be observed round the same water, I think that it is a solitary species, except in the breeding-season, when it is found in pairs.

The soft parts of an adult are:—Irides rich yellow; eyelid orange; base of bill yellow; legs and toes greyish yellow.]

730. ÆGIALITIS MARGINATA.

CC. Port Nolloth, Sept. (5); Plettenberg Bay, Mch. (1); N. Illovo, Nov. (6).

731. ÆGIALITIS MARGINATA TENELLA.

P. Tete, Sept. (1 3, 1 juv.).

The White-fronted Sand-Plover of East and South-East Africa must be, I consider, referred to Charadrius tenellus Hartl., originally described from Madagascar. It does not seem to have anything to do with Charadrius pallidus Strickl., from Damaraland, the type of which, now in the Cambridge Museum, I have been allowed to examine by the kindness of Dr. H. Gadow. This is a very pale bird with no tawny about it. The wing measures 100 cm. and the tarsus, which seemed to me very long, about 28 cm., as compared with 95 and 22 in Æ. m. tenella. On the other hand, as in the "tenella" race and in the West African species, the inner secondaries are dark brown slightly edged with white. The West African form will probably be quite a recognisable race when sufficient good material has accumulated in the Museum to make a satisfactory comparison.

[This is the Common Sand-Plover of all the coast localities visited, but except in the Zambesi region it was not observed on any of the inland rivers. I have always noted it on sandy stretches, and in habits it resembles Æ. hiaticola; the cry is also somewhat alike, but lower in tone.

The soft parts are:—Irides brown; bill blackish; legs and toes grey-flesh-coloured.]

735. RECURVIROSTRA AVOCETTA.

CC. Durban Road, Sept. (1).

737. Numenius Phæopus.

CC. Plettenberg Bay, Mch. 23 $(1 \circ)$; **P.** Inhambane, Sept. 25 $(1 \circ)$.

[The Whimbrel is common in most of the harbours round the coast, especially in the summer season. In Inhambane and Beira Harbours I have seen it in flocks of from twenty to thirty, but when in such numbers it is usually very wild. The call is a whistle, generally, but not always, repeated seven times.]

741. Totanus glareola.

Z. Umfolosi Station, Sept. 14 (1); Tv. Klein Letaba, Oct. 1 (1); Turfloop, Mch 22 (1); P. Masambeti, Nov. 6 (1); Tete, Sept. 20 (1).

[I have more often noted the Wood-Sandpiper than either the Green or Common Sandpiper. It frequents every river, stream, dam, or rain-pool, and is remarkably tame and easy to secure. It usually arrives about the end of August, and returns north about the end of March or middle of April.]

742. Totanus ochropus.

P. Beira, Jan. 29 (1).

[I have only occasionally noted the Green Sandpiper at some of the shaded streams and water-holes during the summer season. The flight is fast and erratic, and the call is a sharp whistle. Both single birds and pairs have been observed.]

744. Totanus hypoleucus.

Tv. Klein Letaba, Sept. 30, Oct. 1 (4); **P.** Masambeti, Nov. 8 (1); Tete, Sept. 2 (1).

[This Sandpiper is commonly found on all the rivers throughout the summer season, arriving in September and leaving about March. I have noticed it more on the broad sandy rivers than on the smaller streams, and often several were feeding along the edge of the water within a few yards of each other. On these rivers I have had excellent opportunities of watching winged birds endeavouring to escape by diving, swimming usually for ten to fifteen yards close to the bottom with the wings partially spread. When shot close to reeds or grass, on being approached they instantly dive and are always lost in the vegetation.]

748. TRINGA MINUTA.

CC. Durban Road, Sept. 19-25 (5); **N.** Illovo, Nov. 6 (1).

[I have observed this species in most of the coast localities touched at, and also in the "Msuugwi" plains in the

Gorongoza district. It is always found in large or small flocks, and its habits are similar to those of birds of the same species on our own coasts.]

749. TRINGA SUBARQUATA.

CC. Port Nolloth, Sept. 4 (1); Durban Road, Sept. 25 (1).

The bird from Port Nolloth still retains a good deal of chestnut speckling on the chest, the remnants of the breeding-plumage.

751. GALLINAGO MEDIA.

P. Masambeti, Nov. 13 (3); Beira, Jan. 29-31 (2).

["Isikwekwekwe" of the Zulus. "Stesesi" of the Ntebis. The Great Snipe can usually be distinguished from G. nigripennis on the wing by its comparatively lighter colouring and its much slower flight. At Masambeti it was much more plentiful than the other species. This Snipe on being flushed always calls. Near Beira I flushed them after heavy rain on the open grassy flats.]

752. GALLINAGO NIGRIPENNIS.

Z. Umfolosi Station, Aug. 29 (1); **Tv.** Zuurbron, May 27-31 (2); **P.** Masambeti, Nov. 15 (1).

The Umfolosi specimen is a young bird; it has a short bill, measuring 2.6 in. (=66 mm.), and is less brightly coloured than the adult, so that it might at first be taken for G. media. It has, however, the tail-feathers spotted, and two other characters by which this species can be distinguished from G. media are as follows:—In G. media the axillaries and under wing-coverts are very regularly barred with black and white, the two colours being equally distributed; in G. nigripennis the black barring is quite irregular and the white prevails as a ground colour. In G. media, again, the blackish stripe running from the base of the bill to the eye is narrow (about 3 mm.) and ill-defined, in G. nigripennis it is broader (about 6 mm.) and much more clearly defined.

["Stesesi" of the Ntebis.

At Wakkerstroom and Zuurbron this Snipe was fairly



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