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THE JOURNAL

OF THE

SOUTH AFRICAN ORNITHOLOGISTS' UNION.

EDITED BY

Dr. J. W. B. GUNNING,
ALWIN HAAGNER, F.Z.S., and B. C. R. LANGFORD.

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ROLL OF MEMBERS

AS AT 31ST OCTOBER, 1911.

No.	Year of Election.	Name and Address.
	1909	ABDY, Col. A. J., R.A.; Army Headquarters, Pretoria.
	1905	ANDERSSON, C. L.; Box 2162, Johannesburg, Tvl.
	1906	BELL, THEODORE; Downside, Epsom, Surrey, England.
	1907	BOLUS, FRANK; Sherwood, Kenilworth, Cape Town.
5	„	BOOTH, H. B.; "Ryhill," Ben Rhydding, Yorkshire, England.
	1905	BOURKE, E. F.; Box 321, Pretoria, Tvl.
	1904	BRIDGEMAN, R. O. B., Lieut. R.N.; Weston Park, Shipnal, Salop, England.
	1907	BRISCOE, Dr. J. E.; Charlestown, Natal.
	1908	CHAMBERS, ROLAND, R.M.; Lindley, O.F.S.
10	1907	CHUBB, E. C.; Museum, Durban, Natal.
	1909	CLARK KENNEDY, J.; Standerton, Tvl.
	1906	COCH, MAX; Rietfontein Lazaretto, Box 1076, Johannesburg.
	1907	DAVIES, C. G., Sgt. C.M.R.; Bizana, Pondoland, C.C.
	1904	DAVY, J. BURTT, F.L.S., F.R.G.S., Govt. Botanist; Dept. of Agriculture, Pretoria, Tvl.
15	1906	D'EVELYN, Dr. F. W.; 2103 Clinton Av., Alameda, California, U.S.A.
	1909	DORNAN, Rev. S. S.; Box 510, Bulawayo, Rhodesia.
	1905	DUERDEN, Professor J. E.; c/o Albany Museum, Grahamstown, C.C.
	„	EVANS, J. B. POLE-; Dept. of Agriculture, Pretoria, Tvl.
	1904	FAIRBRIDGE, W. G.; 141 Longmarket Street, Cape Town, C.C.

No.	Year of Election.	Name and Address.
20	1904	FELTHAM, H. L. L., F.E.S. ; P.O. Box 46, Johannesburg, Tvl.
	„	FRY, HAROLD A. ; P.O. Box 46, Johannesburg, Tvl.
	1907	GILFILLAN, D. F. ; Box 1397, Johannesburg, Tvl.
	1909	GODFREY, Rev. J. ; Pirie Forest Mission, Kingwilliamstown, C.C.
	1908	GRAHAM, FRANCIS, C.C. & R.M. ; Grahamstown, C.C.
25	1905	GRANT, C. H. B. ; Natural History Museum, S. Kensington, London, England.
	1906	GRÖNVOLD, HENRIK ; Natural History Museum, South Kensington, London, England.
	1904	GUNNING, J. W. B., M.D., F.Z.S. ; Director, Museum and Zoological Gardens, Pretoria, Tvl.
	„	HAAGNER, ALWIN K., F.Z.S., Col.M.B.O.U. Superintendent Tvl. Zoological Gardens, Pretoria.
	1909	HALE, P. E., Insp. O.R.C. Police; Bethlehem, O.R.C.
30	1907	HALHED, N. G. B., 3rd Battn. ; Egyptian Army, Khartoum.
	1908	HAMILTON, Major J. S. ; Superintendent, Game Reserves, Komati Poort, Tvl.
	1906	HAMOND, PHILIP, Lieut. 2nd Norfolk Regt. ; East Dereham, Norfolk.
	1909	HARDIMAN, E. H. M. ; Wepener, O.R.C.
	1905	HATCHARD, J. G., F.R.A.S. ; Loco. Drawing Offices, C.S.A.R., Bloemfontein, O.R.C.
35	„	HORSBROUGH, Major BOYD, A.S.C. ; c/o Cox & Co., Bankers, 16 Charing Cross, London.
	1908	HEWARD, JAMES L. ; Yankee-Doodle Mine, Selukwe, S. Rhodesia.
	1905	HOWARD, C. W. ; Dept. of Agriculture, Lourenço Marques.
	1907	HUDSON, C. E. ; P.W.D., Pretoria, Tvl.
	„	INGLE, J. C., F.Z.S. ; P.O. Sabie, Lydenburg, Tvl.
40	1905	INNES, Dr. WALTER, M.B.O.U. ; School of Medicine, Cairo, Egypt.
	1908	IVY, J. ROBSON ; Taxidermist, Church Street, Pretoria.
	1905	IVY, ROBERT H., F.Z.S. ; Grahamstown, C.C.

No.	Year of Election.	Name and Address.
	1904	JEPPE, JULIUS ; P.O. Box 60, Johannesburg, Tvl.
	1905	JOHNSTON, C. McG. ; Bloemfontein Club, Bloemfontein, O.R.C.
45	1909	JOHNSTON, K. C. ; Westminster, O.R.C.
	1904	KIRBY, W. ; Intermediate Pumping Station, Waterworks, Kimberley, C.C.
	,,	KIRKMAN, Dr. A., M.D. ; Queenstown, C.C.
	1907	KNAPP, Col. ; Kingwilliamstown, C.C.
	1910	KNOBEL, J. C. J., Porter Reformatory, Retreat, C.C.
50	1904	LANGFORD, B. C. R. ; P.O. Box 557, Pretoria, Tvl.
	1906	LITTLEDALE, H. A. P., Lieut. K.O.Y.L.I. ; Roberts Heights, Pretoria, Tvl.
	1905	LOUBSER, M. M. ; Port Elizabeth, C.C.
	1908	MALLY, C. W., M.Sc. ; Eastern Province Entomologist, Grahamstown, C.C.
	1905	MARTHINIUS, Dr. J. G. ; District Surgeon, Wepener, O.R.C.
55	1908	MöRS, F. E. O. ; De Kroon, P.O. Brits.
	1905	MURRAY, J. P. ; Maseru, Basutoland.
	1907	NEETHLING, HARRY ; address unknown.
	1906	NEHRKORN, ADOLF ; Adolfstrasse, Braunschweig, Germany.
	,,	NEWMAN, T. H., F.Z.S., M.B.O.U. ; Newlands, Harrowdene Road, Wembley, England.
60	,,	NOOME, F. O. ; c/o Transvaal Museum, Pretoria, Tvl.
	1905	OBERHOLSER, HARRY C. ; Biological Survey, Washington, D.C., U.S.A.
	1904	PERCIVAL, A. B., F.Z.S., M.B.O.U. ; Nairobi, Brit. East Afr. Protectorate.
	1907	PÉRINGUEY, Dr. L., F.Z.S., &c. ; Director S.A. Museum, Cape Town, C.C.
	1905	PERSHOUSE, STANLEY, Border Regt. ; c/o Miss Findlay, 9 St. Leonard's Road, Exeter, England.
65	1908	PHEAR, H. H. ; Box 424, Kimberley.
	1906	POGGÉ, C. ; Conservator of Forests, Friedeburg, Oost Friesland, Germany.
	1904	PYM, FRANK A. O. ; Public Museum, Kingwilliamstown, C.C.

No.	Year of Election.	Name and Address.
	1904	ROBERTS, AUSTIN ; Box 413, Pretoria, Tvl.
	1907	ROBERTS, Rev. Noel ; English Church, P.O. Gezina, Pretoria, Tvl.
70	1908	ROBERTSON, Dr. W. ; Bacteriological Institute, Grahamstown.
	„	SCLATER, ARTHUR L. ; " Helvetia," Southern Melsetter, S.E. Rhodesia.
	1906	SHEPPARD, P. A. ; Mile 23, M'Zimbiti, Beira, P. E. A.
	1904	SKEA, ERNEST M. ; Goldenhuis G.M.Co., Johannesburg.
	„	SPARROW, R., M.B.O.U., Major 7th Dragoon Gds. ; Rookwoods, Sible Headingham, Essex, England.
75	1905	SWINBURNE, JOHN, M.B.O.U. ; Rand Nat. Labour Assoc., Pietersburg, Tvl.
	1904	SWINNY, H. H. ; Port St. John, West Pondoland.
	1907	SWYNNERTON, C. F. M. ; Gungunyana, Melsetter Dist., S. Rhodesia.
	1905	TAYLOR, C. H. ; Grassridge, P.O. Bankop, Ermelo.
	1904	TAYLOR, L. E. ; address not known.
80	1907	THEILER, Dr. A., Govt. Veterinary Bacteriologist ; Box 385, Pretoria, Tvl.
	1909	THOMPSON, CHAS. S. ; High School, San Bernardin, California, U.S.A.
	1906	THOMSEN, F. ; c/o Govt. Entomologist, Govt. Bldgs., Preteria, Tvl.
	1908	TYRRELL, E. G. HARCOURT ; Greytown, Natal.
	1909	UPTON, Capt. C., A.S.C. ; c/o Sir C. R. McGrigor & Co., 25 Charles Street, St. James's Sq., London.
85	1906	VAUGHAN-KIRBY, F., F.Z.S. ; Game Warden, Zululand.
	1905	WIGLESWORTH, J., M.D., M.B.O.U. ; Rainhill, Liverpool, England.
	1906	WOOD, A. R., A.R.M. ; Wepener, O.R.C.
	1904	WOOD, JOHN ; Box 363, East London, C.C.
89	1905	WORKMAN, W. H., M.B.O.U. ; Lismore, Belfast, Ireland.

No.	Year of Election.	Name and Address.
<i>Hon. Members.</i>		
1	1909	ALLEN, Dr. J. A. ; Amer. Museum of Nat. Hist., Washington.
2	1908	BUCKNILL, The Hon. J. A., M.A., F.Z.S. ; The King's Advocate, Nicosia, Cyprus.
3	1907	HARTERT, Dr. E. ; Director Tring Museum, Tring, Herts, England.
4	1909	HERMAN, Dr. OTTO ; Hung. Central Bureau of Ornithology, Budapest.
5	1904	REICHENOW, Dr. A. ; Kaisl. Zool. Museum, Invalidenstrasse, Berlin, Germany.
6	„	SCLATER, P. L., D.Sc., F.R.S. ; Odiham Priory, Winchfield, Hants, England.
7	1907	SCLATER, W. L., M.A., F.Z.S. ; 10 Sloane Court, London, S.W.
8	1904	TRIMEN, R., F.R.S. ; c/o Entomological Society, London, W.

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Vol. VII.

JULY 1911.

No. 1.

I.—*On some Nests and Eggs from Mount Chirinda, Southern Rhodesia.* By C. F. M. SWYNNERTON, F.L.S., Col.M.B.O.U. *With Field-notes by the Collector, D. P. J. ODENDAAL.*

DURING my absence from the country, from April 1907 to October 1908, Mr. D. P. J. Odendaal, who took my place, and whom I have already had occasion ('Ibis,' 1908, p. 5) to thank for much valuable help rendered previously in this connection, got together for me a collection of about 600 bird-skins and a number of interesting nests and eggs (identifying by shooting or trapping at the nests), together with many excellent field-notes. The following pages are descriptive of the eggs and of such nests as remain. Unfortunately, rats have eaten their way into two of the more important boxes, with the result that many nests, skins, and labels have been destroyed.

I have not checked the egg-measurements, which are Odendaal's. With regard to the detail with which I have described the nests and the various clutches, I feel disposed to make no apology, however wearisome such detail may be: for I feel that we should aim at placing ourselves in the position of the Collector in Europe, the man who can with a good deal of certainty recognize the eggs or nests of the vast

majority of his birds at sight; and it is the accumulated record of minute details from every locality that will, sooner than anything else, place us in that position.

[The numbers prefixed to the species are those of Gunning and Haagner's 'Check-list of the Birds of South Africa.']

211. *TURTUR SEMITORQUATUS* (Rüpp.). Red-eyed Dove.

4. 3700 ft. 2.10.07.—A nest was found 15 feet from the ground on the horizontal bough of a tree, and was the slightest possible structure, consisting of a very few sticks loosely put together, 7 inches across. One young bird and one egg about to hatch. The egg is practically elliptical, but with a suspicion of pointing at one end, and measures 35 by 25 mm.; colour, slightly creamy white. The bird was very tame, waiting till the tree was shaken before taking her departure.

87. 3200 ft. 14.1.08.—Nest $12\frac{1}{2}$ feet from the ground on the fork of a horizontal bough of a *Parinarium mobola*. It was a loose flat structure (very slightly hollowed where the eggs lay) of dry sticks and a few *Parinarium* leaves. It contained two half-set eggs, 32 by 25 and 33.5 by 25 mm.; in colour, creamier than No. 4, and a practically perfect ellipse. The bird was somewhat shy.

218. *TYMPANISTRIA TYMPANISTRIA* (Temm.). Tambourine Dove.

107. 3200 ft. 7.2.08.—Nest a flat, slight structure of dry roots, laid $8\frac{1}{2}$ feet from the ground, on a horizontal fork of a *Brachystegia randii* standing in a semi-wooded glen; it contained two eggs, half-set, 23.6 by 18 and 24 by 18 mm., one of them a perfect ellipse (ends indistinguishable), the other with a suspicion of a point at the slightly *thicker* end, cream-colour.

228. *PTERNISTES HUMBOLDTI* (Ptrs.). Humboldt's Francolin.

75. 3200 ft. 31.12.07.—The nest was a mere hollow lined with grasses, in a small comparatively bare spot in the grass-jungle. The bird sat very close, almost allowing

himself to be captured on the nest. Eggs 5; fresh; 44.5 by 34, 44 by 34, and 43 by 35 mm. They are sharply pointed at the small end and rounded at the other; and, in colour, are palest brown, nearly white, the "pores," which are pitted densely over the egg, being actually white. There are no spots whatsoever.

390. APALODERMA NARINA (Steph.). Narina Trogon.

97. 3200 ft. 24.1.08.—In a hollow, 6½ feet from the ground, at the top of a dry, chopped-off *Brachystegia* tree. The hollow was one foot deep by five inches in diameter, and the eggs—one fresh, two slightly set—were laid on rotten pieces of the stump itself; there was no further attempt at a nest. They are pure white, very rounded, and measure 27 by 23.5, 26 by 23, and 27 by 23 mm. Odendaal waited for the bird for three hours, without its putting in an appearance; on the following day, however, his brother, Mr. Paul Odendaal, captured the male on the nest by hand without difficulty. "It is a very sulky and savage bird when caught alive."

410. HALCYON ALBIVENTRIS ORIENTALIS, Peters. Peters's Kingfisher.

14. 3200 ft. 3.11.07.—Nest in a hole, 30 inches deep by 2 in. wide (at the entrance), in the side of a dried-up dam. The chamber was "four inches wide, and laid out with all sorts of insect-shells and rotten wood." It contained three young birds and one addled egg, this measuring 29 by 27 mm., and being smooth and white and even more spherical in appearance than No. 12 (*H. swainsoni*).

411. HALCYON SWAINSONI, A. Sm. Grey-hooded Kingfisher.

12. 3200 ft. 1.11.07.—A nest in the bank of the Umswirizwi River in a hole in the ground that was only 12 inches deep by 2½ wide. The four eggs, hard-set, were lying on scraps of rotten wood, and the chitinous débris of beetles, &c. They are glossy white and nearly spherical, and the three survivors measure 26 by 23 mm. each.

459. *HIRUNDO PUELLA*, Temml. & Schl. Smaller Striped-breasted Swallow.

25. 3300 ft. 21.11.97.—The usual mud nest attached at a point $6\frac{1}{2}$ feet from the ground to a shale cliff in the side of a hill. It contained three fresh eggs, long, narrow, and pure white, each measuring 21 by 14 mm. The birds were very shy.

27. 3200 ft. 26.11.07.—A nest inside a disused house, $6\frac{1}{2}$ feet from the ground, with four hard-set eggs similar to those of No. 25. They measure : 20·3 by 14·5, 21 by 14·5, 22 by 15, and 23 by 15 mm.

492. *BATIS ERYTHROPHIALMA*, Swyn. Red-eyed Flycatcher.

22. 3200 ft. 20.11.07.—A nest 6 feet from the ground, on the drooping branch of a shrub beside a stream. It contained two very hard-set eggs.

This clutch was ascribed by Odendaal to *Tchitreia plumbeiceps*, of which species he shot a female at the nest ; but I cannot help feeling that it may have been the wrong bird, for the egg is a typical one of the above *Batis*, white (faintly greenish) in ground-colour, with large blotches and specks of brown-grey and smears of light vandyk-brown. They measure 17·5 by 14 mm.

500. *TCHITREA PLUMBEICEPS* (Rehw.). Lead-headed Paradise Flycatcher.

29. 3500 ft. 27.11.07.—A nest in a wooded glen ; it was sewn by cobweb to the fork of a small semi-vertical twig, $9\frac{1}{2}$ feet from the ground, and composed externally of shredded herbaceous bark, a few small roots, and, on one side, a scanty layer of moss ; also scraps of bark. The outside is ornamented fairly copiously with pale green-grey lichen. The greatest diameter and depth were each, approximately, 2·5 inches. It contained three fresh eggs, 19 by 14·5, 19 by 14, and 18·5 by 14 mm. ; creamy white, each with a fairly dense zone of small brown madder and grey spots, the actual colour in each case being much like that of the corresponding markings on the eggs of the Black-cap Bulbul (*Pyenonotus*

lugardi). A few of the brown blotches are scattered over the rest of the egg, and in one case the spots composing the zone are markedly smaller and more widely spaced than in the others. The bird remained in the tree, flying restlessly from branch to branch, while the inspection was proceeding.

47. 3300 ft. 4. 12. 07.—A nest in a small fork 10 feet from the ground in a wooded glen. It contained three fresh eggs, 19 by 14, and 19·8 by 14·5 mm. (2). The markings were paler, closer, and with the grey more in evidence than in 29. In each of the three eggs they form a cap of mottling at the thick end of the egg, the rest of the surface being comparatively clear. Ground-colour palest pink.

53. 3200 ft. 17. 12. 07.—A nest 12 feet from the ground on a drooping branch of a wild fig-tree, being held thereon by an upright sucker. It contained three eggs, just ready to hatch; spots pale and generally scattered over the entire surface of the egg, only slightly closer at the thick end; the grey markings very little in evidence, while the ground-colour was creamy white. Nothing would move the bird (the male) from the nest till Odendaal had actually climbed to within 2 feet of it.

56. 3200 ft. 20. 12. 07.—A nest $6\frac{1}{2}$ feet from the ground in a wide fork of a young *Rauwolfia inebrians* that forms one of the supports in a small but dense *Landolphia* plantation. A gang of boys were weeding there daily at the time, and regularly sat to rest under that tree without appreciably disconcerting the sitting bird. The nest contained three fresh eggs, 18·5 by 13 and 17 by 13 mm. (two); speckled all over, but most densely in the form of a cap, at the thick end, with brown markings of a more chestnut tinge than in No. 29. Extremely like common forms of the eggs of the English *Parus coruleus* and *Sitta casia*.

It will be seen from the above notes that the eggs of *Telitrea plumbeiceps* vary considerably within certain rather restricted limits.

Another nest of this species (unnumbered) in Odendaal's collection was composed externally of shreddy silky bark and soft broad grass-blades worked round and round; also the

soft leaves of *Vernonia natalensis* and one or two silky cocoons, the whole felted with spider's web, a little moss, but practically no lichen. It was placed in a small fourfold branch of *Rauwolfia inebrians* (probably, therefore, the same as No. 56 above). In another nest, dry and more or less shredded bark of *Cryptolepis oblongifolia* was the only material used externally, with the exception of a moderate ornamentation with lichens. The lining is a thick one, of the dry red-brown pedicels of *Thalictrum rhynchocarpum*, wound round and round.

515. POMATORHYNCHUS SENEGALUS (Linn.). Black-headed Bush Shrike.

Eleven clutches of eggs: eight of two eggs each, and three of three. Dates: 10. 10. 07 (two, fresh, 25 by 19 and 22 by 17 mm.); do. (two, hard-set, 25 by 17.5 mm. each); 28. 10. 07 (three, slightly set, 24.5 by 18.5, 22 by 18, 23.5 by 18.5); same date (two, hard-set, 26 by 18.5, 25 by 18.5 mm.); 20. 11. 07 (two, hard-set, 23.5 by 19 and 23 by 18.5 mm.); same date (three, hard-set, 25.5 by 18, 26 by 18.5, and 24 by 17.5); 2. 12. 07 (two, fresh, 24.5 by 19 and 25 by 19 mm.); 4. 12. 07 (three, fresh, 23.9 by 18.5 and 24 by 18.5 (two)); 20. 12. 07 (a nestling and two eggs, ready to hatch, 24.5 by 19 and 24.5 by 18.5 mm.); 21. 12. 07 (two, fresh, 25.5 by 18, 25 by 17 mm.); 9. 1. 08 (two, fresh, 25 by 19 and 23.5 by 18).

The situations of the nests were: 4 ft. 4 in. from the ground, hidden in a branch of suckers springing from the fork of a *Faurea saligna* tree; 4 ft. in a *Parinarium mobola*, inserted between two thick vertical stems and a mass of small suckers springing from one of them; 4 ft. in the thick fork of a *Parinarium mobola*; 5 ft. 5 in a "Chisurudza" (*Toddalia* sp. ?), again inserted between the main fork of the tree and a mass of suckers; 4½ ft. in the quadruple fork of a *Combretum splendens*; 6 ft. in an *Antidesma*, firmly placed on a twisted branch in the midst of a branch of suckers; 4½ ft. in a branch of suckers springing from the side of the main stem of a *Combretum splendens*; 8 ft. in a *Bridelia*, at the

point where a thick horizontal bough broke off into three branches ; 4 ft., lying loosely but securely in a branch of suckers springing from a good-sized *Brachystegia* ; 4 ft., placed flat on the top of a decapitated stump of a *Uapaca kirkiana*, and hemmed in closely by the suckers that had sprung up all round ; $4\frac{1}{2}$ ft., in the thick fourfold fork of a *Combretum splendens*.

The above series is interesting as indicating a marked preference for an immensely solid nesting-site with, preferably, a superabundance of additional side-support. This seems a natural enough predilection when we consider the looseness with which the nest is usually pieced together, and the fact that it is seldom or never attached in any way to its supports. The elevation was, in no less than eight cases out of the eleven, 3200 ft. ; two nests were at about 3500 ft., and only one at the 3800 ft. level. This accords with my own previous and subsequent experience, but is probably explained by the fact that the birds appear to prefer the type of country (widely scattered trees standing in long dense grass) that they have found at the lower elevation. Only three of the nests are in my possession.

23. An exceedingly flimsy structure of small roots, including a few ferns, and a few equally fine twigs.

44. Loose and flimsy ; diameter 4.5 inches ; excepting for a few dry herbaceous stems encircling it on the outside, it is composed entirely of not very fine roots ; such as still have a portion of the stem attached are unmistakably those of grasses.

54. More solid and compact than usual, composed entirely of small roots with a slight outer casing of dry twigs. Diam. 4 in. by 3.

Eggs. In Nos. 44, 54, 60, 24, 30, and 11 the streaks are of the reddish brown-madder type with the usual underlying markings of iron- to violet-grey ; in No. 7 they are a yellowish brown, and 23 is to some extent intermediate, though nearer 44 &c. In 10 and 83 the brown-madder is cooler in tone. In 8 the equivalent markings are scanty and confined chiefly to a thin zone of sepia spots and short streaks, with

the underlying grey even more reduced—quite a different type of egg. Dark brown-madder spots are present in 54, and in 36 this colour has resolved itself into bold but still more or less streaky markings about the large end. In 11 the grey is much reduced, and the egg generally streaked all over with finer scratchings that fill the spaces between the bolder markings.

Odendaal in nearly every case notes that the birds were very shy and evasive, at once slinking into cover; and in three cases he confirms my observation ('Ibis,' 1908, p. 50) that the birds will, where possible, run along the ground when disturbed, both in leaving the nest and in returning.

526. LANIARIUS MAJOR (Hartl.). Hartlaub's Shrike.

Dryoscopus guttatus, Hartl. P. Z. S. 1865.

Dryoscopus mossambicus, Finsch & Rehw. Journ. f. Ornith. 1880.

9. 3800 ft. 19. 10. 07.—A nest five feet from the ground in a small patch of dense bush near Chipete, attached by means of tendrils on either side to a thick fork of *Rhoicissus cuneifolia*. It contained two eggs, measuring 23 by 18 and 22 by 17 mm.; they were slightly incubated.

15. 3200 ft. 5. 11. 07.—In a grassy, thickly-wooded glen, a nest was found five feet from the ground in a three-pronged fork of a *Combretum splendens*. From the base of the fork a mass of leafy suckers grew up all round the nest, concealing it. The latter is the usual rough, shallow, oval structure; it measures 5 by 4 inches, and is composed externally almost entirely of various roots, including a few of asparagus; two or three strips of some pinnate leaf are worked in, and a thick spray of *Helichrysum* (apparently *H. leiopodium*) with leaves attached is twined round the whole. Inside the roots are finer and a large proportion are those of ferns, while a single grass-head is also worked in. But, apart from this, the lining is hardly to be distinguished from the general structure of the nest. It contained two eggs, half-set: each measured 24 by 18 mm.

19. 3200 ft. 14. 11. 07.—A nest in a densely wooded

glen. The nest was placed $5\frac{1}{2}$ feet from the ground, on a tangle of climbing stems. Some of these hung over it and concealed it excellently. There were two eggs—one very hard-set, the other addled,— $24\cdot5$ by 17 and 24 by 17 mm. The nest was built of material taken from the climbers which supported it, and was quite loosely put together and without lining. It measured 3 inches in diameter by 1·6 inches in depth.

32. 3200 ft. 29.11.07.—In a grassy, lightly wooded glen a nest was found eighteen feet from the ground on the top of a cut-off stump of “Chisarudza,” and supported by the suckers which were springing up all round. It is a flimsy, shallow structure of small roots surrounded by a few herbaceous stems and with a fair admixture of the dry stems of some fine herbaceous climber; diameter about 4 inches. Three eggs, slightly incubated, were taken, two of which measured 24 by 18·5 and one 23·5 by 18 mm.

105. 3500 ft. 30.1.08.—A nest was located in a steep densely wooded glen. It was placed three feet from the ground on a big branch overlooking the kloof and supported by a twig on either side, and contained two fresh eggs, 24 by 18 mm. each. This was probably a second brood. The birds appear to have behaved at the nest much as described in ‘The Ibis’ for 1908, p. 54.

All five clutches in Odendaal’s collection are referable to the type figured as “7” in plate viii. of ‘The Ibis’ for 1908, p. 443; but as that figure does not give a clear idea of the coloration of the spots, I will describe the egg in detail:—

In 105 and 32 the ground-colour is white tinged with greenish blue, and the markings, which are mostly small, violet-grey and pale chestnut in colour, are speckled fairly thickly over the egg in general, but *most* thickly over the larger end. In No. 15 the markings are paler; in No. 19 paler still and more confined to the cap, and the ground is a more pronounced blue. In No. 9 the brown markings are yellowish-brown rather than chestnut.

532 A. *LANIUS COLLARIS HUMERALIS*. Northern Fiscal Shrike.

6. 3300 ft. 7.10.07.—A nest situated $7\frac{1}{2}$ feet from the ground, in the fork of a tree. It contained four fresh eggs, three of which measured 25 by 19, 24 by 18.5, and 25 by 18.5 mm. respectively. They are typical of the more boldly marked form, being pale, dull greenish, speckled all over with light olive-brown and a few underlying iron-grey markings. In the zone which surrounds the larger end these grey markings become far more numerous and pronounced. The birds were very wild.

675. *ANTHUS LINEIVENTRIS*, Sund. Stripe-bellied Pipit.

58. 3500 ft. 20.12.07.—The nest was placed on the ground under an overhanging bunch of grass, the latter only leaving a small opening by which the nest was approached. The latter was constructed externally of small twigs and lined with grasses. It contained three eggs, slightly set, 24.4 by 17.5, 24 by 17, and 23 by 17.4 mm.; white, mottled over fairly thickly with small reddish-brown and underlying grey markings, and indistinguishable from a common form of the egg of *Pycnonotus layardi*.

The sitting bird, on being flushed, feigned a broken wing.

684. *MACRONYX CAPENSIS* (L.). Cape Longclaw.

62. 3800 ft. 24.12.07.—A nest was discovered of rough grass, in a hollow in the ground, rather open and conspicuous. There were three eggs, very hard-set: 24 by 18, 24.5 by 18 (two) mm. Rather bluish white, with small spots of grey and yellowish brown distributed fairly plentifully over the whole egg.

108. 3200 ft. 7.2.08.—A second nest in a grassy, thickly wooded kloof. The description of No. 62 applies in every detail to this nest too. Eggs three, half-set: 25 by 18.5, 25 by 18, and 24.5 by 18.5 mm. The spots more washed-out in appearance, and densest at the thick end of the egg; ground-colour creamier than in 62. The birds at this nest were very wild, those at the other being bolder.

718. *PHYLLASTREPHUS MILANJENSIS* (Shell.). Nyassa Bulbul.

30. 3600 ft. 27. 11. 07.—A nest in a wooded glen near Chipete, nine feet from the ground, in the trailing twigs of a large woody climber, containing two hard-set eggs, measuring 26·5 by 18·5 and 25·5 by 18·5 mm. respectively, and densely mottled on a white ground with more or less longitudinal and streaky markings of sepia and underlying iron-grey. In one egg the grey markings are far more noticeable than in the other, particularly as an ill-defined zone round the thick end. These eggs, like those figured in 'The Ibis' for 1908 (p. 443), are of a peculiar shape, the increase in width occurring very high up, and giving the egg almost a pyriform appearance. In coloration (not in shape or size) the two eggs of clutch No. 30 much resemble a common form of the egg of the English Tree-Sparrow (*P. montanus*)

The bird showed great boldness, refusing to leave the nest till the very last moment.

721. *PHYLLASTREPHUS FLAVOSTRIATUS* (Sharpe). Yellow-streaked Bulbul.

42. 3800 ft. 3. 12. 07.—Three feet from the ground, amongst the stems of a climbing shrub in the Chirinda forest, a nest with one egg, very hard-set, measuring 23 by 17 mm., was found. The egg had the usual ring of a few bold, nearly black markings on a glossy ground that is in this case rather duller, with more of a tone of grey, than usual—possibly to some extent the result of fading. For the more usual ground-colour, see 'Ibis,' 1908, p. 443, pl. viii.

The ovary contained a nearly full-sized egg, in spite of the fact stated above.

732. *PYCNONOTUS BARBATUS LAYARDI*, Gurn. Black-capped Bulbul.

The collection contains 19 eggs, of seven clutches: five of 3 eggs each, two of 2. Dates: 16. 11. 07, 29. 11. 07 (very hard-set), 4. 12. 07 (hard-set), 27. 12. 07, 1. 1. 08 (hard-set), 18. 1. 08 (very hard-set), and 12. 2. 08 (slightly set, as were

those of 27.12.07 and 16.11.07). The elevation varied from 3200 ft. to 3950 ft. Only two of the nests have been preserved: No. 43, which was situated about $9\frac{1}{2}$ feet from the ground, resting on a dry branch with some further support from growing leaves (those of *Pteleopsis mystifolia* are still attached to the nest). Externally it is composed of dry herbaceous twigs; while the lining consists of a layer of very fine grass-heads, with the seeds (or flowers) shredded off. The total diameter is 3.5 inches, depth of cup 1.75 inches. No. 21 was placed in the usual four-fold fork of a young *Rauwolfia inebrians*, $3\frac{1}{2}$ feet from the ground; moderately bulky, composed entirely of dry herbaceous stems, a little green moss, and a few dry leaves, and lined thickly and neatly with the pedicels of *Thalictrum rhynocharpum* and the finest of shredded grass-heads. Total diameter 4 by 4.5 inches; cup 2.5 inches wide by 1.5 inches deep.

Four of the remaining nests were placed in trichotomous forks of Ceara rubber-trees (*Manihot glaziovii*), at 7, 10, $9\frac{1}{2}$, and 13 feet from the ground respectively. The seventh was 12 feet from the ground, in the simple fork of a *Parinarium mobola* standing in grass-veld. This was firmly attached to the tree, those in the rubber-plantation being in each case loosely climped, so to speak, on to their resting-places without an attempt at attachment. In some cases—rather the opposite to my own experience—the birds showed great excitement and boldness at the nest.

Eggs. Nos. 43 and 67 belong to the type with a purplish-white ground-colour, marked comparatively sparingly over with bold and very dark spots, blotches, and streaks of brown-madder and pale underlying blotches of grey. The markings in four out of the six eggs show a marked tendency towards the formation of a zone round the thick end. In No. 16 (two eggs) the brown-madder blotches are paler, far larger, and equally bold, giving, with the large pale-grey underlying markings, a handsome marbled appearance that is reminiscent of that of a Nightjar's egg.

The remaining eggs (14, of five clutches) all belong to the

very common more or less densely-mottled type, with comparatively small spotting of medium darkness—a type that is so often reminiscent of the reddish, densely marked form of the egg of the Tree-Pipit (*A. trivialis*).

745. CHALCOMITRA OLIVACINA (Peters). Little Olive Sunbird.

35. 3700 ft.—A nest in a deep densely-wooded glen; hanging from the end of a twig trailing over a small stream, and three feet from the latter. Two eggs, fresh, each 19·8 by 14 mm., and perfectly typical of nearly all I have found myself (v. 'Ibis,' 1908, p. 42, & pl. viii. fig. 2).

761. CINNYRIS CHALYBEUS (L.). Lesser Double-collared Sunbird.

18. 3200 ft. 14. 11. 07.—A nest, eight feet from the ground, attached to the side of a vertical branch of *Parinarium mobola*. Two half-set eggs, 16 by 11½ mm. each; ground-colour pale grey, densely and minutely mottled over with a darker grey, especially at the larger end, and more especially as a darker zone round the latter.

28. 3200 ft. 27. 11. 07.—A second nest, six feet from the ground, hanging from a forked twig of *Combretum splendens*. Eggs two, fresh, 17 by 13 and 17·5 by 13 mm.; ground-colour similar to that of No. 18, but the markings less dense and less minute, a browner grey, and imparting a longitudinally streaky appearance to the entire egg.

793. CISTICOLA NATALENSIS (A. Sm.). Natal Grass-Warbler.

74. 3200 ft. 30. 12. 07.—A nest was found in a bunch of grass one foot from the ground. It contained four hard-set eggs, 20 by 14·7, 19·4 by 14·7, and 19·7 by 14·7 (two). The ground-colour is pure white, speckled fairly thickly all over with minute spots of light purplish grey.

100. 3800 ft. 27. 1. 08.—A nest in grass-veld close to Chipete, one foot from the ground, in a tuft of green grass, and, to judge from its present appearance (it has been preserved *in situ*), extraordinarily well concealed, the grass

in which it is placed having itself been utilized to a large extent for the outer layer of the otherwise flimsy semi-domed nest. The lining consists of fine grass-heads, some of which are brought together at the top of the dome, a very few downy pappi at the bottom of the cup being the only other material used. Total height $4\frac{1}{2}$ inches, diameter 2·5 inches. Some grass was hanging loosely from the opening. The bird at both these nests was distinctly shy, readily leaving the nest and following its usual habit of flying from the top of one prominent stump to another. The eggs of No. 100 were apparently lost.

106. 3200 ft. 6. 2. 08.—A nest one foot from the ground in a tuft of grass, and composed, like the last, of a flimsy layer of dry grasses, with a firm and compact outer casing of the green growing grass-blades, some of the latter being brought over to form the dome. Three eggs, measuring 20 by 14 mm. each; white, strongly tinged with blue and speckled all over, especially about the larger end, with spots of yellowish brown and violet-grey, the latter in each case predominating.

800. *CISTICOLA SEMITORQUES* (Heugl.). Grey Grass-Warbler.

82. 3800 ft. 8. 1. 08.—A nest close on the outskirts of the Chirinda Forest, 2 ft. 4 in. from the ground, in a *Lippia* shrub in my coffee-plantation. The nest was seated between two vertical twigs and composed of grass, to which was fastened an external layer of the *Lippia* leaves themselves. Three fresh eggs, 18·5 by 12 and 17 by 12·1 mm. (two); white, faintly tinged with blue and with bold spots and blotches of vandyk-brown and violet-grey, confined chiefly to the thick end—in one egg as a well-defined zone.

99. 3600 ft. 27. 1. 08.—A nest neatly fastened inside a bunch of grass, one foot from the ground. The green growing blades were themselves wound round the nest, forming its outer layer. Next came a layer of fine grass-heads, and next the lining, a felted mass of vegetable down. All seeds had been removed from both these layers. In

shape more or less spherical, with a large opening; average diameter 3 inches. Eggs three, 17 by 12.3 (two) and 16.5 by 12 mm. Similar to No. 82, but markings paler and taking the form of a zone in all three.

89. 3200 ft. 16.1.08.—A nest two feet from the ground in a shrubby *Combretum splendens* standing in some open grass-flats. The nest was fastened to the side of an upright twig, the leaves of the latter being brought round and fastened to it all round, affording not only ample support but a strong outer casing. One projected over the entrance, and must have served the purpose of throwing off the rain. Two half-set eggs, 18 by 12.5 and 18 by 12 mm.; again similar to No. 82, but the markings are larger and in one of the eggs far more of the grey than the brown is present; no zone. In the other many hair-like streaks of the brown find a place in the zone of blotches.

In another clutch of three eggs, number undecipherable, but almost certainly of this species, the blue tint of the ground-colour is somewhat more pronounced, and the blotches of the two other colours, pale and comparatively large, are more evenly distributed over the whole surface of the egg.

827. PRINIA MYSTACEA, Rüpp. Tawny-flanked Wren-Warbler.

39. 3200 ft. 21.2.07.—A nest was found three feet from the ground in a small shrub, attached in the usual manner to a small drooping twig, containing four eggs, 16.5 by 12 (three) and 17 by 12 mm. Two are peculiar in the possession of comparative broad, light, chestnut vertical markings, which give one the impression that the egg had been stood up on its small end and damped before the fine circular lines surrounding the crown were drawn, and that much of the "ink" had trickled from the latter towards the small end. In the third these suffused markings are not vertical, and evidently simply represent the usual fine scrawlings suffused.

40. 3800 ft. 7.12.07.—A second nest three feet from the ground in a bed of bracken, sewn tightly and neatly to a

single frond. Two eggs, 18 by 12·1 mm. each, intermediate in colouring between Nos. 72 and 96, but with leanings to the latter. The bird was exceedingly tame, merely flying a few yards off and there quietly preening its feathers.

71. 3200 ft. 30.12.07.—A third nest 15 inches from the ground, slung, after the fashion of an English Reed-Warbler's (*A. arundinaceus*), between three vertical stems of *Vernonia natalensis*, to which it was looped by means of the same very fine grass-blades that formed the general material. Two hard-set eggs, 16 by 11·5 and 16 by 11 mm., two of them resembling No. 72 in ground-colour and the third 96; the markings were of the former type, but far slighter.

72. 3200 ft. 30.12.07.—A nest in grass-veld. The description of the situation, &c. of nest 71 applies absolutely to this nest too. There was no special lining in either case. Four hard-set eggs, of which the survivor measures 16 by 11·3 mm., and is pale dull grey with a few long-drawn scrawls and hieroglyphics of deepest chestnut.

96. 3500 ft. 22.11.08.—A nest on a grassy hill, 3 feet 4 inches from the ground, in a dense clump of *Triumfetta annua*. It is unusual, in being built comparatively loosely of far coarser grass-blades than are as a rule employed by this species. No special lining, 5·5 inches deep by 2·75 inches diameter. The cup is 2·5 inches deep inside, and the opening of the nest 1·25 inches across. Four eggs, just about to hatch, over the pale grey ground-colour, and a suffused ring of light chestnut surrounds the thicker ends. In and around this are scrawled a few exceedingly fine lines of a far darker shade with, in one egg, a blot or two of the same colour.

99 a. 3600 ft. 27.1.08.—Three eggs, two comparatively fresh, one addled.

102. 3200 ft. 30.1.08.—A nest slung, Reed-Warbler fashion, between thin vertical stems of *Cryptolepis oblongifolia*, 3½ feet from the ground. Composed externally of the usual fine, soft, tough, reddish grass-blades, and lined with a quantity of the finest soft grass-heads with seeds removed. Total depth 4·5 inches, diameter 2·75, opening (as usual,

almost at the top) 1 inch; cup 2·5 inches deep (inside); three eggs, half-set, 16·2 by 12 (two) and 16·5 by 12 mm. These eggs and the remaining eggs of No. 99 *a* are peculiar in the fact that their markings take the *Cisticola*-like form of blotches of pale grey and chestnut-brown (pale in the former clutch, far bolder in the other) scattered over the egg. The ground-colour of 102 is that of 72, that of 99 *a* is whiter. The latter has a very few of the finest streaks and spots of the darkest shade to testify to its *Prinia* origin, and the other broader but equally scanty markings of the same character.

836. APALIS THORACICA (Shaw & Nod.). Bar-breasted Warbler.

33. 3800 ft. 29. 11. 07.—A nest 5 feet from the ground, slung to one of the thinner twigs of a bushy shrub standing in a deep wooded glen. Material (not much left) includes moss, fine grass-heads, downy pappi, and the pedicels of *Thalictrum rhynchocarpum*. One egg, perfectly fresh, 18 by 12·6 mm.: in colour a white ground, covered fairly thickly with smallish, light brownish-red markings. The bird, whenever the nest was approached, at once slipped stealthily into some dense scrub close by, and there kept up softly its "Pi-pi-pi" note.

38. 3200 ft. 2. 12. 07.—A nest situated 10 feet from the ground, attached to a dry twig in a densely wooded glen, contained three eggs, fresh; two measured 17 by 13 and 16 by 12·5 mm. respectively; colour a white ground speckled over with very small brownish-red markings, markedly paler than in 33.

46. 3600 ft. 4. 12. 07.—A nest in a wooded glen, slung 5 feet from the ground, to a hanging dead branch. Material: downy pappi, fine grass-heads, and moss. It contained two young birds and one very hard-set egg, 18·5 by 12 mm., faint bluish ground with almost equally faint and vague pink markings.

48. 3800 ft. 7. 12. 07.—Inside the Chipete forest-patch, hanging from a thin drooping twig, 4 feet 8 inches from the

ground, a nest was discovered containing four eggs, very hard-set, measuring 16 by 11 (two), 16 by 10·5, and 16·5 by 11 mm. Like 52, but blotches far larger.

52. 3800 ft. 16. 12. 07.—About 5 feet from the ground a nest was found in the fork of a *Solanum aculeastrum* stump on the outskirts of Chipete. It had less down in it than is usually employed: fine grass-heads, moss, and fine asparagus twigs (apparently *Asparagus virgatus*), while the lining is entirely of the pedicels of *Thalictrum rhyncho carpum*. Three fresh eggs, 17 by 12, 16·5 by 11·5, and 16 by 12 mm, respectively, white with smallish but bold and isolated blots and specks of chestnut-brown, and underlying pinkish grey scattered over the whole surface of the egg.

85. 3200 ft. 9. 1. 08.—An unusual situation, the nest being fastened by means of cobweb between one or two leaves and a shrubby upright twig, 11 feet from the ground, of an *Erythrina tomentosa* standing by itself in some open grass flats: it is compactly built and consists chiefly of the admixture of a fine yellowish moss with small downy pappi. A number of small mid-ribs of some pinnate leaf serve to trace the exterior, while fine grass-heads have also been largely utilized, especially for the lining. It contained two quite fresh eggs, 18 by 13 and 17 by 13 mm., marked like No. 31, but with a pale blue ground.

98. 3600 ft. 27. 1. 08.—In a wooded glen near Chipete, 4 feet 6 inches from the ground, the nest was slung between and fastened neatly to hanging trailers of the lovely climbing fern *Lygodium subalatum*. Fine moss, shredded fibrous bark, a little fine grass, downy pappi, and the pedicels of *Thalictrum* form the material, the moss predominating on the outside, the pappi in the middle layer, and the pedicels in the actual lining. The skin correlated with this nest, the nest itself and its position are unmistakably those of *Apalis thoracica*, but the eggs are obviously those of *Cisticola semi-torques*. As the converse occurs in No. 100, taken on the same date, I am, I think, justified in assuming that the eggs marked with the latter number are actually those of 98, and vice versa. They are three in number, measure 17 by 12·5,

16.5 by 12, and 16.2 by 12.5 mm. The ground-colour is that of No. 85, but the specks are slightly larger and slightly less dense.

862. CRATEROPUS KIRKI, Sharpe. Kirk's Babbler.

26. 3200 ft. 23. 11. 07.—A nest $4\frac{1}{2}$ feet from the ground in the triple fork of a bushy shrub. Two very hard-set eggs.

66. 3200 ft. 27. 12. 07.—A very deep nest, 9 feet from the ground, in a bunch of suckers springing from the horizontal branch of a small tree standing in open grassveld. Three fresh eggs, 26 by 19.5, 27 by 19, and 27 by 19.5 mm.

94. 3700 ft. 22. 1. 08.—A loose, unfinished-looking nest placed in the thick triple fork of a "Water-boom" (*Syzygium cordatum*) 13 feet from the ground. It contained one egg, quite fresh, 27.5 by 21.5 mm.

The eggs in each of the above three clutches are of a bright glossy blue, quite unspotted, and, in all probability, belong to the above species. But in every case it was a Cuckoo that was shot leaving the nest—*Chrysococcyx cupreus* at Nos. 26 and 66, and *C. kluasi* at the third.

897. PRATINCOLA TORQUATUS (L.). South African Stone Chat.

2. 3800 ft. 15. 9. 07.—A nest $4\frac{1}{2}$ feet from the ground in the triple fork of a good-sized orange-tree, built externally of grass and lined with bush-buck hair and wool. Four eggs, hard-set, 21 by 14.5, 20 by 15, and 20 by 14.5 mm., with the red-brown markings very pale in each and evenly distributed over the entire pale blue surface; a very slightly denser zone round the thick end. In one egg the markings are so pale as almost to be indistinguishable. The bird feigned a broken wing for some distance on leaving the nest.

3. 3200 ft. 16. 9. 07.—A second nest was taken from a hole under a stump of *Combretum splendens* standing in a grassy glen. The hole was 5 inches deep by 3 broad.

Three fresh eggs, measuring 18·5 by 15 mm. each, of the usual pale greenish blue with light red-brown markings, gathered for the most part in a dense zone round the thicker end. There are three degrees of paleness in this clutch, the palest being very pale indeed, and the darkest easily confusable with one form of the egg of *Erithacus swymertoni*.

904. *COSSYPHA HEUGLINI*, Hartl. Heuglin's Robin Chat.

20. 3200 ft. 14.11.07.—A nest in a densely wooded glen, 9 feet from the ground, on a small dry branch, with further support from trailing stems of our lovely climbing fern *Lygodium subulatum*, with which it was surrounded. Grass-blades, a grass-head or two, dead leaves of the *Lygodium* itself, downy pappi, the fine dry petioles of some pinnate leaf, and fern-roots all entered into its composition. Eggs two, fresh, 25 by 17 and 24·5 by 17 mm. respectively, pale uniform pinkish drab, this colour being, in the case of one especially, slightly deepened in the form of a zone round the thicker end. The bird at once flew off into the neighbouring thickets and remained there until a Bulbul (*P. layardi*) arrived and commenced to move about in the neighbourhood of the nest. She then at once threw off her fear of the human intruder and, sallying forth, drove the other off.

45. 3700 ft. 4.12.07.—A nest 4 feet from the ground, flat, on the top of a thick tree-stump in a deep and densely wooded glen, contained two hard-set eggs, 23 by 16·4 and 23 by 17 mm. respectively. At the first glance they appear to be of the uniform olive-brown type of the eggs of *Cossypha natalensis*, but a closer inspection shows faint underlying markings of a pinker tinge. Were it not for the position of the nest (the glens, as opposed to more extensive forest, being but little patronised by *C. natalensis*) and the fact that the skin collected with this clutch is that of *C. heuglini*, I would still conclude that the eggs were those of the other species.

II.—Notes on a few Birds from Wakkerstroom.

By AUSTIN ROBERTS.

HETERONYX RUDDI. Rudd's Lark.

In January, 1909, I obtained a Lark near Dalmanutha Station, E. Transvaal, which I at once recognized by its song as a species new to me. Three or four of them were hovering high overhead, uttering a series of clear and distinct notes, resembling a person whistling with bubbles in the mouth and then breaking out into clear whistling notes with variations. When once heard it will not easily be mistaken for any other Lark. I obtained only one specimen there, a female with greatly enlarged ova; it was not identified, as it was thought to be a young bird, the plumage of the back leading to that conclusion. During September, October, and November, I shot a good many specimens in the vicinity of the village of Wakkerstroom, tracing nearly all of them by their song, uttered at that time of the year from the ground. They all have exactly the same easily distinguished characteristics, viz. : a tail so short and thin as to lead one to suppose them to be another species without a tail, its resemblance in particular to *Mirafra chiniana*, its heavy bunch of feathers on the top of the head, the feathers of the eyebrow projecting outwards like horns, and the long hind claw. They frequent the open grass-veld amongst the spurs of the Drakensberg range, so far as I know. Two specimens were sent to the Transvaal Museum during the same year, from Pondoland.

ANTHUS CHLORIS. Little Yellow-tufted Pipit.

During September, October, and November—the only months I spent there—I found this Pipit meagrely distributed over the grassy valleys, always in pairs; and the last one I shot was a female, on the 4th October, which would have laid its eggs a day or two later. Subsequent to that date I saw others which, judging by their restlessness, seemed to have nests in the vicinity, but I was not fortunate enough to find any. They very much resemble *Anthus rufulus* in appearance when their backs are towards one, and

they are careful not to expose their yellow breasts; when followed they often squat and allow one to get quite close before suddenly flitting off.

ANTHUS CRENATUS, Finsch & Hartl. Yellow-tufted Pipit.

I found this Pipit to be fairly common on the higher ledges and slopes of the mountains around the village. The males are fond of perching on the point of a rock, and, pointing their beaks skywards, utter a clear whistling song of two loud pipes, followed by half a dozen quivering notes running down the key; when first I heard them I mistook them for one of the many variations of the song of the Bakbakiri Shrike (which were numerous in the patches of scrub near at hand). The only female I obtained was silent and running about amongst the stones on the hill-side. They are very shy and tantalising, and I spent hours in chasing the birds, trying to stalk them when singing: I could hear one singing on the terrace above me, and after laboriously scrambling the krantz, would be just in time to see it disappear over the rocks and hear it singing below me; on scrambling down again it would fly back to near its first post, and so the little game would continue, until I gave it up. I found one nest which a pair were building, but they deserted it after I had inspected it: it was placed under the shelter of a grass-tuft on the slope of the hill.

ANTHUS NICHOLSONI, Sharpe. Nicholson's Pipit.

This species is not very common, its place being taken by the preceding species.

ANTHUS RUFULUS CINNAMOMEUS, Rüpp.

Very plentiful, in the open veld.

BUDYTES FLAVUS, L. Blue-headed Waxbill.

Arrived in small flocks on the 12th Nov., in very bad plumage, and, I was informed, remain all the summer.

BRADYPTERUS BABECULUS (Vieill.). Babbling Reed Warbler.

This little-recorded Warbler is found in all the patches of dense low scrub in the mountain kloofs. It is very difficult

to obtain good specimens of them, as they are so constantly moving about on or near the ground in the densest parts of the scrub, that though one can follow them by their call-notes—much to the detriment of one's clothes—when one does catch a momentary glimpse of them they are generally so close as to be blown to pieces with the smallest charge of dust-shot; the plumage is also very loose and comes away in bunches with every pellet that strikes it. It has rather a pretty little song, which it utters at intervals nearly all day long, whilst creeping about. One hen I shot had enlarged ova, and a few days later, 24th Nov., I found a nest with two eggs. It was made of dry blades of grass curled loosely round a lining of fibrous roots, and placed in a thick, dry patch of "kat bosch," a few inches from the ground.

III.—*Notes on the Birds of the District of Matatiele, East Griqualand.* By C. G. DAVIES, M.B.O.U.

IN the number of this Journal for October 1908, I gave some notes on the water-birds of this district; these notes were mainly based on a few made by me when stationed here in 1898 and 1899, at which time I did but little systematic collecting. During the past year (1910) I have travelled over the greater part of the district, and am able to give a better idea of the birds inhabiting it. The species in the following list have all been collected by myself, with the exception of a few which have been procured by Dr. Pope and Mr. Gould, both of this town, and to both of whom I am indebted for notes on many species secured here before my arrival. I also have to thank Dr. Duerden, of the Albany Museum, for kindly giving me a list of specimens presented to the Museum by Mr. Gould, and forwarding some of the doubtful ones for my inspection.

In this paper I have followed the new Check-list of Dr. J. W. B. Gunning and Mr. A. K. Haagner.

Although the greater part of the Matatiele district is what one might call high veldt, the country to the north-east sloping gradually up to the Drakensberg Mountains, to the

south-west the country drops rapidly to the valley of the Mvenyane River, and at the extreme south-west corner of the district, known as the lower Mvenyane, the hill-sides are covered with a fair amount of forest, and here such characteristic birds of the low country as the Lourie and Drongos are found. I have not, unfortunately, had much opportunity of collecting in this part, but probably the Avifauna will be found to resemble that of Pondoland, which is not far distant.

1. *COLYMBUS CRISTATUS*, L. Crested Grebe.

This species was formerly fairly common in the large vleys in the district, but seems now to have almost disappeared, and I have not personally met with it, but have lately had a skin sent to me of an adult in full plumage, shot on one of the pans near the town.

2. *COLYMBUS CAPENSIS* [(Licht.) Salv.]. Cape Dabchick.

Very common and a resident. I have found nests; and when shooting in the vleys have sometimes seen young newly hatched—curiously striped little things—swimming within a few feet of me; their mothers calling and swimming all round me, trying to lead me away by every device possible.

3. *DIOMEDIA EXULANS*, L. Wandering Albatross.

During the great blizzard of June, 1902, a specimen was picked up in an exhausted and dying condition on one of the farms.

4. *HYDROCHELIDON HYBRIDA* (Pall.). Whiskered Tern.

An occasional visitor to some of the vleys; all those shot were in non-breeding plumage.

5. *PHALACROCORAX LUCIDUS* (Licht.). White-breasted Cormorant.

An occasional visitor in small numbers during the summer months.

6. *PHALACROCORAX AFRICANUS* (Gm.). Reed Cormorant.

Like the previous species, it is found in small numbers during summer months.

7. PELECANUS ROSEUS, Gm. Eastern White Pelican.

Rare. Two specimens were shot on a large pan on the farm "Golden Fleece"—one in December 1906, and one in January 1910. On the latter occasion two birds were seen. All these were immature birds in the brownish plumage.

8. ERISMATURA MACCOA (A. Sm.). Maccoa Duck.

Not common, but I think resident, as I have met with a few at all times of the year. I have never been able to discover a nest, but a female shot on 9.3.10 contained a shelled egg, ready for laying. The egg, which was unfortunately broken beyond repair, was very large for the size of the bird, and of a pale bluish-green colour, the shell rather chalky in texture. When alarmed this species sinks the body until little more than the head and tail appear above the surface; but when swimming at ease the bird floats with the body well out of the water, like other ducks. When alarmed the tail is cocked up and inclined forwards, so as to almost touch the head, which is thrown backwards.

9. THALASSORNIS LEUCONOTUS, Eyt. White-backed Duck.

Common on most of the larger vleys. This curious little duck usually swims rather deep, the tail flush with the water; it has a curious piping note, usually uttered when flying. On the 17.4.10, I found a nest containing eight eggs; the nest, which was rather a deep cup woven of reeds, placed in a clump of the same in about 3 feet of water. I have sometimes seen the females accompanied by four or five young, the latter appearing very dark brown in colour, all of them diving at intervals and remaining quite a long time under water. They are usually very tame, and when shooting I have often had occasion to approach quite close before they would rise and make off.

10. NYROCA CAPENSIS, [Cuv.] Less. S. African Pochard.

Fairly common during the summer months, very few remaining over the winter. They usually occur in small flocks. The note is a grating "kerr kerr," usually uttered during flight. I found a nest on the 19.4.10, containing

nine hard-set eggs ; it was a hollow lined with grass, near a small vley. The duck sat very close, almost letting me catch her before leaving the nest. A curious thing about the males is the colour of the eyes ; they are usually described as red, but, with the exception of one bird, all I have met with were yellow : the one exception was a bird which was alive when picked up ; in this specimen the eyes were a brilliant red, but on my return home I found that they had changed to the usual yellow colour. There was no suffusion of blood to account for the red colour, as the bird was not hit in the head.

11. SPATULA CAPENSIS ([A. Sm.] Eyt.). Cape Shoveller.

Rather a scarce species. Several have been shot from time to time, but I have personally only met with one pair.

12. ANAS UNDULATA, Dubois. Yellow-billed Duck.

The commonest duck in the district, occurring often in very large flocks, except when breeding, when they are usually found in pairs. The notes of the sexes differ a good deal, that of the male resembling that of the English Mallard, while that of the female is a loud quack like that of the female Mallard : there is also a difference in colouring, the male, as well as being much larger, has all the markings much more distinct than those of the female ; those on the breast are more circular and scale-like, these markings in the females and young birds being more longitudinal. During the breeding-season I have often seen the drakes pursuing the ducks in the air, sometimes circling round to a great height, the female turning and dodging in every direction and quacking loudly.

13. ANAS SPARSA, [A. Sm.] Eyt. Black Duck.

Found in small numbers on all the rivers, seldom visiting the vleys, except when, after heavy rains, the rivers become flooded.

14. ANAS ERYTHORHYNCHA. Red-billed Teal.

Next to the Yellow-bill this is our commonest duck, usually seen in small flocks. It breeds on most of the vleys. The

young are wonderfully clever at hiding, swimming quietly away among the reeds, the head and neck stretched flat along the surface of the water. The latter is also a habit with "winged" adult birds. The note is a rather harsh quack, uttered, I think, usually by the female. They are generally rather tamer than the Yellow-bill, and are quite the best eating of all our duck.

15. *ANAS CAPENSIS*, Gm. Cape Wigeon.

On the 2nd January, while out shooting on some pans near the village, I came across a single specimen of this Teal, which I was fortunate enough to secure. It was rather wild, but would not leave the pan on which I found it. It resembled the common Red-billed Teal in appearance, but when on the wing I was at once struck by the large amount of white showing on the wings. I made careful notes of the colouring of the soft parts at the time while the bird was fresh. The colouring of the bill differed somewhat from the description given by Lt. Littledale in a previous number of the Journal, and was a delicate waxy pink, a patch at base and edges near tip *black*, there was a slight bluish shade along the culmen and tip. This must be a very rare species here, and I have never heard of one having been shot before.

16. *ANAS PUNCTATA*, Burch. Hottentot Teal.

Rare. I have only seen one specimen, an adult male; killed in this district.

17. *DENDROCYGNA VIDUATA* (L.). White-faced Duck.

A rare visitor at irregular intervals. I have not met with it, but specimens were procured by Mr. Gould on 25.5.03 and 2.4.05.

18. *DENDROCYGNA FULVA* (Gm.). Whistling Duck.

Very rare. I saw a single specimen on a large pan about 20 miles from Matatiele on the 18.1.11; it was very wild, and although I followed it and put it up several times I could not get a shot at it. I, however, had a good view of it, and there can be no mistake; it also uttered, when flying, its

whistling note. It was associating with some Yellow-billed Duck, and while flying the contrast in shape was very marked. A friend of mine who lives in that part of the district, and does a good deal of shooting, told me that about two years ago he saw several of them and, although very wild, he managed to secure one of them. This species has never been recorded from Cape Colony before.

19. *SARKIDIORNIS MELANOTUS* (Penn.). Knob-billed Duck.

On the same day that I saw the previous species I came across eight of these fine ducks on a small weedy pan. They were not very wild, but unfortunately I had only small shot (no. 6) with me, and although I had four shots at them I failed to secure one; however, I went out after them the next day with some larger shot and was lucky enough to get one of them, a very fine specimen, an old male with a knob measuring 2 inches in height from the nostrils. The eight birds seen were all adult males, with large knobs on their bills. This must be a very rare duck in the district, and I cannot find any trace of their having ever been seen before.

20. *CHENALOPEX ÆGYPTIACUS* (L.). Egyptian Goose.

A few usually visit the district during the winter months.

21. *PLECTOPTERUS GAMBENSIS NIGER*, Scf. Black Spur-wing.

Although Mr. Haagner in his article on this species in this Journal states his opinion that there is only one species of Spur-wing in S. Africa, I think the southern bird should be kept separate as a subspecies under the above name. I have seen hundreds in this district and have shot a number, besides having seen many shot by others, and *without exception* they have all been *black* birds, *none* of them having any white on the head and neck (with the exception of a few white feathers scattered here and there on the cheeks), the white being confined to the wing-coverts and a small patch on the abdomen, running to a point on the lower breast; in fact the general impression, seen at a little distance, is, that the bird is black.

They are common in this district and do a considerable amount of damage to the farmers' crops; not only do they knock down and trample a quantity of the growing wheat, but even when it is stacked on the lands they pull about and strip the sheaves. When flying they utter a curious clucking whistle, and when wounded and attacked by a dog hiss and strike with their wings. The young are often caught by natives and brought in for sale; I have three at present running at large about the camp. They will cross with the Muscovy Duck, but the eggs invariably prove unfertile.

[In Selater's description of *P. niger* no mention is made of white on the head and wing, yet Mr. Davies says his birds have white feathers on the face and white wing-patches. Besides, *niger* was described from the north and not from Cape Colony. From my own experience in general I should say the very old males have the most white on them. The Transvaal Zoological Gardens got twelve Spur-wings in July 1910, and when they arrived I would have certainly taken them for *P. niger* had not several had white patches or freckling on the face, while others had more or less conspicuous white wing-patches. After eleven months in the Gardens they are beginning to get whiter and whiter, and all hope of their being *niger* has vanished. Furthermore, Selater's description says that the wattles are not so well-developed as the average *gambensis*; another possible proof that his birds were young ones.—A. H.]

22. CASARCA CANA (Gm.), S. African Sheldrake.

Scarce—visiting the district in small numbers at irregular intervals.

23. ARENARIA INTERPRES (L.). Turnstone.

Rare. I have only seen a single specimen killed in the district.

24. GLAREOLA MELANOPTERA, Nordm. Black-winged Pratincole.

An irregular visitor. None were seen last year (1910).

25. *CURSORIUS RUFUS*, J. Gould. Rufous Courser.
Not uncommon on the flats and resident.

26. *CHARADRIUS HIATICULA*, L. Ringed Plover.
Scarce. I have personally only shot one specimen.

27. *CHARADRIUS TRICOLLARIS*, Vieill. Three-banded Plover.
Very common and resident.

28. *STEPHANIBYX MELANOPTERUS* (Cretzschm.). Black-winged Lapwing.

Scarce. I have not met with it, but Mr. Gould informs me he has seen flocks on several occasions.

29. *ŒDICNEMUS CAPENSIS*, Leht. Cape Thicknee.
Not common; I have only seen one or two specimens.

30. *NUMENIUS ARQUATUS* (L.). Curlew.
A rather rare migrant, single birds being occasionally seen on the vleys.

31. *TOTANUS PUGNAX* (L.). Ruff.

Very common on marshy ground, sometimes in large flocks. This is one of our earliest visitors, arriving in August and leaving in March. Amongst the specimens shot on 7.3.10 many of the females had already moulted into breeding-plumage.

32. *TOTANUS LITTOREUS* (L.). Greenshank.

Not very common; but one or two are generally seen amongst flocks of other waders and are a fearful nuisance to the sportsman, being very wild, and dashing off with their loud whistles putting every other bird on the alert.

33. *TOTANUS STAGNATILIS*, Bechst. Marsh Sandpiper.

I have lately found a good many of these Sandpipers on one of the farms. They are just like miniature Greenshanks in appearance, habits, and note. I did not meet with them last year, although I looked out for them.

34. *TOTANUS GLAREOLA* (L.). Wood Sandpiper.

Very common. Specimens are sometimes found in full breeding-plumage.

35. *TRINGOIDES HYPOLEUCOS* (L.). Common Sandpiper.
Not common; usually found singly along river-banks,
rarely on the vleys.

36. *TRINGA FERRUGINEA*, Brunn. Curlew Sandpiper.
Not common; found occasionally in small flocks.

37. *TRINGA MINUTA*, Leisl. Little Stint.
Not common; found in small flocks or singly.

38. *GALLINAGO MEDIA* (Frisch). Double Snipe.
Not common.

39. *GALLINAGO NIGRIPENNIS*, Bp. Ethiopian Snipe.
Not common. Considering the amount of marshy ground
in the district, it is strange that there should be so few
Snipe; I know of only one or two places where one can
depend on finding them. A nest was found by Mr. Gould
on the 30th October, 1910, containing two eggs.

40. *ROSTRATULA BENGALENSIS* (L.). Painted Snipe.
Not common, but I believe resident. I have not found
eggs; but of four shot on a small piece of marshy ground,
two were adult male and female, the other two being young
birds, probably the young of the adult pair. I have noticed
that wounded birds of this species will make short jumps
forward, with wings and tail expanded to their fullest
extent, and uttering a kind of hissing noise, as if to try and
frighten one. I have noticed a wounded Nightjar do
almost exactly the same thing.

41. *OTIS CAFRA*, Licht. Stanley Bustard.
A Bustard, either of this species or *O. ludwigii*, occurs on
some of the farms in small numbers; but I have not been
able to procure specimens for identification.

42. *BUGERANUS CARUNCULATUS* (Gm.). Wattled Crane.
This species was formerly not uncommon, but is now
rarely seen.

43. *ANTHROPOIDES PARADISEA* (Licht.). Blue Crane.
This species used to be exceedingly common, occurring in

large flocks in the winter months, and occasionally breeding; but now it is rarely seen, and I have only met with one pair during the past twelve months.

44. *BALEARICA REGULORUM* (Benn.). Crowned Crane.

This species has also almost disappeared from the district, where it was formerly fairly common.

45. *ACTOPHILUS AFRICANUS* (Gm.). African Jacana.

Rare. A specimen was shot on one of the vleys by Mr. Gould.

46. *RALLUS CÆRULESCENS*, Gm. Caffre Rail.

Mr. Gould tells me he shot a specimen of this Rail some time ago. Birds of this family are great skulkers, and are rarely seen; so they may be much commoner than one thinks.

47. *CREX CREX* (L.). Corn-Crake.

A few visit the district during the summer months.

48. *ORTYGOMETRA PUSILLA OBSCURA* (Neum.). Little Crane.

Very common on all the vleys during the summer months.

49. *SAROTHRURA LINEATA* (Sw.). Streaked Crane.

Apparently uncommon. The only specimens I have secured were both males: one was rescued from a Lanner Falcon, the other from a cat.

50. *PORPHYRIO PORPHYRIO* (L.). Purple Gallinule.

Fairly common on some of the more reedy vleys. This bird is an adept at hiding itself, and after being flushed once is rarely seen again.

51. *GALLINULA CHLOROPUS* (L.). Moorhen.

Not common.

52. *FULICA CRISTATA*, Gm. Red-knobbed Coot.

Exceedingly common on all the vleys.

53. *TURNIX LEPURANA* (A. Sm.). Kurrichane Button-Quail.

Rather scarce.

54. *PTEROCLES NAMAQUUS* (Gm.). Namaqua Sand-Grouse.

This species has only appeared in this district during the last few years, and then only in small numbers during the winter.

55. *IBIS ÆTHIOPICA* (Lath.). Sacred Ibis.

Fairly common, and remaining in the district throughout the year, with the exception of short absences in spring and autumn, probably for the purpose of breeding, as on their return they are usually accompanied by a large number of young birds.

56. *GERONTICUS CALVUS* (Bodd.). Bald Ibis.

Occasionally seen in small flocks.

57. *THERISTICUS HAGEDASH* (Lath.). Hadadah Ibis.

Rare. A specimen was lately seen by a friend perched on some rocks near his farm, calling loudly; the natives told him they had never seen the bird before.

58. *PLEGADIS AUTUMNALIS* (Hasselq.). Glossy Ibis.

Very rare. A specimen was shot by Mr. Gould.

59. *PLATALEA ALBA*, Scop. Spoonbill.

Not common, but found all over the district in small numbers, principally during the summer months. They usually associate with the Ibises; but whereas the Ibises are always seen scattered about all over the marsh, the Spoonbills are usually in small flocks. I have never shot an adult bird with a well-developed crest.

60. *TANTALUS IBIS*, L. Wood Ibis.

Rare. A few seem to visit the district annually; these appear to be all immature birds in the brownish plumage. Mr. Gould has shot one or two, and I saw a flock of six last summer; they were associating with Ibises and Spoonbills, and were quite unapproachable.

61. *LEPTOPTILOS CRUMENIFER* ([Cuv.] Less.). Marabou Stork.

Very rare. One of these birds visited the district during 1906, and remained about the vleys for some time.

62. *CICONIA CICONIA* (L.). White Stork.

A fairly common migrant. Last year they were very common, and although the majority left in March a good many remained right through the winter, in spite of two falls of snow.

63. *CICONIA NIGRA* (L.). Black Stork.

Rare. One or two have been shot in the district.

64. *PHÆNICOPTERUS ROSEUS*, Pall. Greater Flamingo.

Very rare. An immature specimen was shot this year by a friend on one of the farms. This is the only occurrence of this species in the district I have heard of.

65. *SCOPUS UMBRETTA*, Gm. Hammerhead.

Very common.

66. *NYCTICORAX NYCTICORAX* (L.). Night-Heron.

Formerly common amongst the reeds in some of the vleys, but now appears to have almost disappeared. I have only seen one specimen, an immature bird, which I shot last summer.

67. *BOTAURUS STELLARIS CAPENSIS* (Schl.). Cape Bittern.

Not uncommon and resident. Mr. Gould found a nest containing three eggs. The nest, built of reeds and lined with short pieces of the same, was placed in a clump of rushes in about three feet of water. The eggs are olive-brown in colour, almost exactly like those of the European Bittern. This clutch, together with the parent birds, are now in the Transvaal Museum. One of these birds, which I wounded, was not content with putting itself on the defensive, but made several determined rushes at me, looking very fierce, with its ruff and feathers of the body erected to the utmost.

68. *ARDETTA PAYESI* ([Verr.] Hartl.). Red-necked Little Bittern.

A single adult female of this species, shot on one of the vleys last summer, is the only one I have seen.

69. *ARDEOLA RALLOIDES* (Scop.). Squacco Heron.

Not common, and only seen during the summer months. Most of those met with appear to be immature birds.

70. *ARDEA PURPUREA*, L. Purple Heron.

Fairly common and resident.

71. *ARDEA CINEREA*, L. Grey Heron.

Common and resident.

72. *ARDEA MELANOCEPHALA*, Vig. & Childr. Black-headed Heron.

Common and resident. This Heron appears more of a land-bird than most of the family, and is usually to be seen out on the veldt or in corn-lands, stalking along on the lookout for the locusts, beetles, mice, &c. which seem to form its principal food.

73. *BUBULCUS IBIS* (L.). Cattle Egret.

Scarce. I have only met with two or three.

74. *HERODIAS GARZETTA* (L.). Little Egret.

Scarce. I have only seen two or three specimens associating with the next species.

75. *HERODIAS BRACHYRHYNCHA*, Brehm. Yellow-billed Egret.

This is the most plentiful of the white Egrets in this district, and although not common is pretty generally distributed in small numbers. On one of the farms, however, where there is a large reed-bed, they are common and roost in the reeds. It is a very pretty sight, on a fine summer evening, to see them going to roost. They arrive in parties of three and four, and take a long time to settle down, squawking and squabbling for the best places; every now and then something disturbs them, and the whole lot rise like a white cloud, only to settle down again in a minute to begin the whole disturbance over again. This particular reed-bed is also the roosting-place of vast numbers of Sprees and Bishop Birds, together with Purple Herons and Marsh-

Harriers. In the evening there is a regular babel of bird voices of all sorts, combined with the croaking of frogs.

76. COLUMBA PHÆONOTA, G. R. Gr. Rock-Pigeon.
Very common.

77. TURTUR SENEGALENSIS (L.). Laughing Dove.
Common.

78. TURTUR CAPICOLA (Sund.). Cape Turtle Dove.
Common.

79. TURTUR SEMITORQUATUS (Rüpp.). Red-eyed Dove.
Rather scarce and local.

80. CENA CAPENSIS (L.). Namaqua Dove.
Not common. This is a species which has only made its appearance of late years, probably owing to the increase of plantations.

81. NUMIDA CORONATA, G. R. Gr. Crowned Guinea-fowl.

This species has been introduced on many of the farms and seems to be increasing.

82. FRANCOLINUS LEVAILLANTII (Val.). Cape Red-wing Francolin.

Rather scarce, and only found in small numbers on some of the farms.

83. FRANCOLINUS AFER (Latham). Grey-winged Francolin.
Common in suitable localities all over the district.

84. COTURNIX COTURNIX AFRICANA, Tem. & Schl. African Quail.

Common in some years. Last year they were very plentiful; many bred in the district and remained during the winter.

85. COTURNIX DELAGORGUEI (Delag.). Harlequin Quail.
Rare. A single cock bird was shot by Mr. Gould.

86. GYPS KOLBI (Daud.). Griffon Vulture.
Not very common.

87. SERPENTARIUS SERPENTARIUS (Miller). Secretary Bird.

Found in small numbers all over the district, usually in pairs.

88. POLYBOROIDES TYPICUS, A. Sm. Harrier Hawk.

Rare. A fine adult female was sent me by a friend; this was probably a straggler from the low country.

89. CIRCUS MACRURUS (Gm.). Pallid Harrier.

Not common, but found all over the district in summer.

90. CIRCUS RANIVOROUS (Daud.). South African Marsh-Harrier.

Common on all the marshes.

91. AQUILA VERREAUXI, Less. Black Eagle.

Appears to be found in small numbers along the Drakensberg, where I saw a fine pair the other day, circling round and round and playing together in the open air.

92. BUTEO JAKAL (Daud.). Jackal Buzzard.

Fairly common.

93. BUTEO DESERTORUM (Daud.). Steppe Buzzard.

Not common.

94. HALIAËTUS VOCIFER (Daud.). Sea-Eagle.

Rare. I saw a fine adult one day circling round over a large pan. This was probably a straggler from one of the larger rivers.

95. MILVUS ÆGYPTIUS (Gm.). Yellow-billed Kite.

Not common, and I think only passes through the district on migration.

96. ELANUS CÆRULEUS (Desf.). Black-shouldered Kite.

Fairly common.

97. FALCO BIARMICUS, Temm. Lanner Falcon.

Common, and a great nuisance when out Quail-shooting, as Quail will not rise if there is a Falcon hanging about. These Falcons are encouraged by the Basuto herd boys, who, when out hunting Quail with dogs and sticks, call the

Hawks, which are generally somewhere about, knowing well that Quail will not rise if they can help it and are then easily caught by the dogs or knocked over with sticks. Sometimes a Quail makes a dash for liberty, and then, should it be missed by the Hawk, which is unlikely, drops like a stone into cover; and it will then suffer itself to be picked up by hand, rather than make another attempt*. I have often heard it said that one of these Falcons cannot catch a Rock-Pigeon in full flight; but the other day I saw a Lanner fairly catch a Rock-Pigeon, after a stern chase which must have lasted ten minutes.

98. *CERCHNEIS AMURENSIS*, Radde. Eastern Red-legged Kestrel.

I saw a few of this species last summer associating with flocks of *C. naumanni*; most of these appeared to be immature birds.

99. *CERCHNEIS RUPICOLA* (Daud.). South African Kestrel. Common.

100. *CERCHNEIS NAUMANNI* (Fleisch). Lesser Kestrel.

A good many of these Kestrels visited the district last summer. Dr. Pope tells me that some years ago there were hundreds of this species and *C. amurensis*, and that the telegraph-wires used to be covered with them.

101. *BUBO MACULOSUS* (Vieill.). Spotted Eagle Owl. Not common.

102. *ASIO NISUELLA* (Daud.). Marsh Owl. Common everywhere on marshy ground.

103. *PISORHINA CAPENSIS* (A. Sm.). Cape Scops Owl.

Two specimens were caught in the town last summer, but I think the species is rare as a rule.

* [To some such practice in the remote past the origin of falconry may perhaps be traced. The above account bears a striking resemblance to those passages in Pliny and Aristotle which have often been quoted as proving the existence of falconry in Europe some 300 B.C. Mr. Shortridge also notes ('Ibis,' 1904) a similar practice amongst the natives in the adjoining territory of Pondoland.—EDD.]

104. *STRIX FLAMMEA MACULATA*, Brehm. Cape Barn-Owl.
Fairly common, frequenting holes in kranzes during the day.

105. *TURACUS CORYTHAIX* (Wagl.). Cape Lourie.
Found in fair numbers in the bush in the Lower Mvenyane.

106. *CLAMATOR SERRATUS* (Sparrm.). Black - crested Cuckoo.

Scarce, a few seem to visit plantations of wattles during the summer.

107. *CLAMATOR JACOBINUS HYPOPINARIUS*, Cab. & Heine. Black-and-Grey Cuckoo.

A regular summer visitor in small numbers.

108. *CLAMATOR GLANDARIUS* (L.). Great Spotted Cuckoo.

A few pass through the district every year on migration.

109. *CUCULUS SOLITARIUS*, Steph. Red-chested Cuckoo.

Scarce. I heard one calling in a small patch of bush in a kloof on the 25th October, 1910.

110. *CUCULUS CANORUS*, L. European Cuckoo.

Rare. An immature male was shot last summer, by a friend, in a blue gum plantation in the town.

111. *CHRYSOCOCCYX CUPREUS* (Bodd.). Golden Cuckoo.

A few arrive every spring, but do not stay long. I might mention here that all the females I have shot have had the tail rufous banded with green, whereas in Stark and Selater the female is described as being similar to the male in plumage.

112. *GEOCOLAPTES OLIVACEUS* (Gm.). Ground Woodpecker.

Common.

113. *DENDROPICUS GUINEENSIS* (Scop.). Cardinal Woodpecker.

A rather scarce visitor. Two or three have been shot in the town.

114. *CORACIAS GARRULUS*, L. European Roller.

Passes through the district in fair numbers on migration in December and January, but I have not noticed any return migration in the autumn.

115. *CORACIAS CAUDATUS*, L. Lilac-breasted Roller.

Rare. A specimen was shot in a plantation on the outskirts of the town by Mr. Gould some time ago, another by myself in the same place on the 1st January, 1910; both these were immature birds. This is the first record, I think, of the species from Cape Colony.

116. *BUCORVUS CAFFER* (Sehl.). Ground Hornbill.

Scarce. I saw a small flock of this species on the race-course last summer; probably these were stragglers from the Lower Mvenyane.

117. *CORYTHORNIS CYANOSTYGMA* (Rüpp.). Malachite-crested Kingfisher.

Not very common, but generally distributed.

118. *ALCEDO SEMITORQUATA*, Sw. Half-collared Kingfisher.

Not so common as the previous species, but found in the same localities.

119. *CERYLE RUDIS* (L.). Pied Kingfisher.

Scarce. Occasionally seen on the rivers, rarely on the vleys.

120. *CERYLE MAXIMA* (Pall.). Giant Kingfisher.

Seen now and again on the large rivers.

121. *MEROPS APIASTER*, L. European Bee-eater.

A specimen was seen a few days ago in one of the gardens in the village, but was not secured. This species is, I think, only a rare straggler to this district.

122. *UPUPA AFRICANA*, Bechst. African Hoopoe.

Rather scarce. I have seen one or two in the town gardens.

123. *CAPRIMULGUS RUFIGENA*, A. Sm. Rufous-checked Nightjar.

Scarce. I have only met with one specimen, an immature male.

124. *MACRODIPTERYX VEXILLARIUS* (J. Gd.). Standard-wing Nightjar.

Very rare. Dr. Pope informs me that, some years ago, an adult male with fully developed streamers was killed in one of the gardens in town.

125. *APUS MELBA AFRICANUS* (Temm.). White-bellied Swift.

Fairly common.

126. *APUS BARBATUS* ([Temm.] Scl.). Black Swift.

Common.

127. *APUS CAFFER* (Schl.). African White-rumped Swift.

Fairly common and nesting under many of the eaves of houses in the town.

128. *RIPARIA CINCTA* (Bodd.). Banded Sand-Martin.

Fairly common, but keeping mostly to the higher part of the district.

129. *RIPARIA PALUDICOLA* (Vieill.). African Sand-Martin.

Common about the vleys and rivers.

130. *RIPARIA FULIGULA* (Leht.). Rock-Martin.

Very common and resident all the year round.

131. *HIRUNDO ALBIGULARIS* (Strickl.). White-throated Swallow.

Fairly common.

132. *HIRUNDO RUSTICA*, L. European Swallow.

Common, arriving in October and leaving again in March.

133. *HIRUNDO CUCULLATA*, Bodd. Larger Stripe-breasted Swallow.

Common.

133 A. *STENOSTIRA SCITA* (Vieill.). Fairy Flycatcher.

Rare. A single female brought to me by a small boy who had shot it with a catapult is the only example I have seen.

134. *TCHITREA PERSPICILLATA* (Sw.). Paradise Flycatcher.

A rare straggler. A single specimen shot in the town by Mr. Gould.

135. *CAMPOPHAGA NIGRA*, Vieill. Black Cuckoo Shrike.

Rare. A specimen shot in the town by Mr. Gould.

136. *PELECINIUS ZEYLONUS* (L.). Bakbakiri Bush Shrike. Common.

137. *LANIARIUS MAJOR* (Hartl.). Larger Puff-backed Shrike.

Rare. A specimen shot by Mr. Gould in the town.

138. *LANIUS COLLARIS*, L. Fiscal Shrike.

Common.

139. *LANIUS COLLURIO*, L. Red-backed Shrike.

Appears in small numbers in summer.

140. *CORVUS SCAPULATUS*, Daud. Pied Crow.

Local; fairly common in some parts, almost unknown in others.

141. *HETEROCORAX CAPENSIS* (Leht.). African Rook.

Fairly common.

142. *CORVULTUR ALBICOLLIS* (Lath.). White-necked Raven.

Fairly common.

143. *DICRURUS AFER* (A. Leht.). Fork-tailed Drongo.

Rare. A single specimen was shot in town by Mr. Gould.

144. *CREATOPHORA CARUNCULATUS* (Gm.). Wattled Starling.

Rather scarce. I met with a few last summer feeding among cattle in company with *Spreo bicolor*.

145. SPREO BICOLOR (Gm.). Pied Starling.

Very common.

146. AMYDRUS MORIO (L.). Red-wing Starling.

Not very common.

147. PLOCEUS SPILONOTUS, Vig. Spotted-backed Weaver.

Fairly common.

148. PLOCEUS CAPENSIS OLIVACEUS (Halm). Olive Weaver.

Not so common as the previous species.

149. PYROMELANA TAHA (A. Sm.). Golden Bishop Bird.

I was surprised last summer to find this beautiful little bird quite common all over the district, as it was never met with in former years. This is, I believe, the first record of the species being found in Cape Colony.

150. PYROMELANA ORIX, L. Red Bishop Bird.

Very common.

151. EUPLECTES CAPENSIS APPROXIMANS (Cab.). Lesser Cape Bishop Bird.

Not very common, and keeping to the hill-sides on the higher ground. I might mention that specimens shot in Pondoland appear to be intermediate between *P. capensis* and *P. capensis xanthomelas*, the feathers of the thighs being mixed brown and black.

[Two examples procured by me at Modderfontein had also mixed brown and black thighs, but were determined by the late Dr. Sharpe as *approximans*.—A. H.]

152. UROBRACHYA AXILLARIS (A. Sm.). Red-shouldered Widow Bird.

Rather scarce.

153. COLIUSPASSER ARDENS (Bodd.). Red-collared Widow Bird.

Not very common.

154. *NEISNA DUFRESNEI* (Vieill.). Sweet Waxbill.

An adult male was shot lately in one of the gardens in the village. This is a rare species here and I have not met with it.

155. *VIDUA SERENA* (L.). Pin-tailed Widow Bird.
Common.

156. *PASSER MELANURUS* (St. Müll.). Cape Sparrow.
Very common.

157. *PETRONIA SUPERCILIARIS* ([Hay] Blyth). Diamond Sparrow.

I have only seen one or two examples.

158. *SERINUS CANICOLLIS* (Sw.). Cape Canary.
Very common.

159. *FRINGILLARIA REIDI*, Shell. Natal Bunting.
Fairly common.

160. *FRINGILLARIA TAHAPISI*, A. Sm. Rock Bunting.
Very common. Consorting with the Sparrows in the town.

161. *MOTACILLA CAPENSIS*, L. Cape Wagtail.
Common.

162. *ANTHUS CHLORIS*, Licht. Yellow-breasted Pipit.
Rather scarce. No description is given in Stark and Selater of the breeding-plumage of this species. In the nuptial plumage the throat, breast, and eyebrows are bright yellow; the breast spotted and the flanks streaked with brown.

163. *ANTHUS CRENATUS*, Finsch & Hartl. Large Yellow-tufted Pipit.

Not uncommon in the more hilly parts of the district, frequenting rocky ground singly or in pairs. In the spring the males may often be seen perched on the tops of rocks uttering a curious long-drawn-out note.

164. ANTHUS RUFULUS CINNAMOMEUS, Rüpp. Tawny Pipit.

Very common.

165. ANTHUS NICHOLSONI, Sharpe. Nicholson's Pipit.

Not uncommon, frequenting rocky ground, usually in pairs.

166. ANTHUS LEUCOPHYRYS, Vieill. Plain-backed Pipit.

Not so common as the two previous species.

167. MACRONYX CAPENSIS (L.). Cape Long-claw.

Very common.

168. MIRAFRA CHINIANA, A. Sm. Latakoe Lark.

They are not common, and I have only met with them during the summer, frequenting the corn and forage lands, lying very close, and when flushed only flying a few yards before dropping into cover again.

169. HETERONYX RUDDI, O.-Grant. Crested Lark.

A small Lark which is common on the flats.

170. CERTHILAUDA SEMITORQUATA, A. Sm. Grey-collared Lark.

Fairly common on rocky hill-sides.

171. CALANDRELLA CINEREA (Gm.). Red-capped Lark.

Very common.

172. ANDROPADUS IMPORTUNUS (Vieill.). Sombre Bulbul.

Common in the bush in the Lower Mvenyane.

173. PYCNONOTUS CAPENSIS NIGRICANS (Vieill.). Red-eyed Bulbul.

Not common. I have met with a few in some of the gardens during the summer.

174. PYCNONOTUS BARBATUS LAYARDI, Gurn. Black-cap Bulbul.

Fairly common during the summer in the gardens, but disappears during the winter.

175. *ZOSTEROPS VIRENS*, Sund. Green White-eye.

Rare all over the greater part of the district, but common in the Lower Mvenyane.

176. *CINNYRIS AFER* (L.). Great Double-collared Sunbird.

Only found in the Lower Mvenyane.

177. *NECTARINIA FAMOSA* (L.). Malachite Sunbird.

Common.

178. *PROMEROPS GURNEYI*, Verr. Natal Long-tailed Sugar-bird.

Fairly common amongst the sugar-bush on the hills.

179. *CISTICOLA SUBRUFICAPILLA* (A. Sm.). Grey-backed Grass-Warbler.

Fairly common.

180. *CISTICOLA TINNIENS* (Leht.). Levaillant's Grass-Warbler.

Common on the marshes and along river-banks.

181. *CISTICOLA TERRESTRIS* (A. Sm.). Wren Grass-Warbler.

Very common.

182. *CISTICOLA FULVICAPILLA* (Vieill.). Tawny-headed Grass-Warbler.

Not uncommon amongst the scrub in the kloofs.

183. *SCHENICOLA APICALIS* (Cab.). Fan-tailed Reed-Warbler.

A few were heard and seen lately amongst the reeds in one of the vleys.

184. *LUSCINIOLA GRACILIROSTRIS* (Hartl.). Babbling Reed-Warbler.

I have lately found a few inhabiting some of the reed-beds in the larger vleys.

185. *ACROCEPHALUS ARUNDINACEUS* (L.). Great Reed-Warbler.

I lately saw a specimen amongst the reeds on one of the

vleys, and also heard its loud croaking song, but I think it is a rather scarce species.

186. *ACROCEPHALUS PALUSTRIS* (Bechst.). Marsh-Warbler.

Not uncommon. This species is sometimes found frequenting the gardens and cornfields.

187. *ACROCEPHALUS BÆTICATUS* (Vicill.). African Reed-Warbler.

Fairly common. Not only found in the marshes, but I have met with a good many in the gardens and amongst the corn.

188. *PRINIA MACULOSA*, Bodd. Cape Wren-Warbler.

Not very common.

189. *PHYLLOSCOPUS TROCHILUS* (L.). Willow-Wren.

Fairly common during the summer, arriving early in December.

190. *SYLVIA SIMPLEX*, Lath. Garden-Warbler.

Rare. I have seen only one specimen, shot in one of the gardens in town.

191. *CHÆTOPS AURANTIUS*, Say. Orange-breasted Rock-Jumper.

Scarce, only found amongst the rocks in the highest parts of the district, along the Drakensberg.

192. *MONTICOLA RUPESTRIS* (Vieill.). Cape Rock-Thrush.

Fairly common.

193. *MONTICOLA EXPLORATOR* (Vieill.). Sentinel Rock-Thrush.

Common.

194. *THAMNOLÆA BIFASCIATA* (Temm.). Buff-streaked Chat.

Not very common.

195. *MYRMECOCICHLA FORMICIVORA* (Vieill.). Ant-eating Chat.

Not uncommon amongst the ant-hills on the flats. A

young male of the year had the lesser wing-coverts white, like the adult male.

196. *SAXICOLA MONTICOLA* (Vieill.). Mountain Chat.

Fairly common. I have shot specimens in all the various plumages mentioned in Stark and Selater, and have written some notes on the plumages of this species elsewhere.

197. *SAXICOLA PILEATA* (Gm.). Capped Wheatear.

Not common.

198. *PRATINCOLA TORQUATA* (L.). South African Stone Chat.

Fairly common.

199. *COSSYPHA CAFFRA* (L.). Cape Robin Chat.

Rather scarce.

200. *PHENICURUS FAMILIARIS* (Steph.). Familiar Chat.

Not common.

IV.—*Obituary.*

Captain BOYD ALEXANDER.

THIS intrepid explorer and keen naturalist met with a violent death on the 2nd April, 1910, in the Lake Chad region, being little short of murdered by natives for no apparent reason, except perhaps that he was a white man.

The country was then in an unsettled condition, owing to the French reverse at Nassalit.

In the October 1910 No. of the 'Ibis,' Mr. Ogilvie-Grant writes an appreciation of the life and work of Boyd Alexander, from which these few remarks are culled.

He was the eldest son of Lt.-Col. B. F. Alexander, of Swifts Place, Cranbrook; being born on the 16th January, 1873, thus only 37 years old at his death. At 20 years of age he entered a Militia Battalion of the Rifle Brigade, but evinced a great love for Natural History and collecting from early boyhood.

His first expedition on the Continent of Africa was that to the Zambesi, when he formed one of the members of Major Gibbons's "Cape to Cairo" Expedition, which started from Chinde on 18th July, 1898.

He formed on the Zambesi and the Kafue Rivers a collection of about 1000 bird-skins of 212 species, several of which were new to science, and the results were published in the 'Ibis' for 1899 and 1900. After his work on the Zambesi Collection was completed, he left England and joined the Gold Coast Constabulary, taking part in the relief of Kumassi in 1900 (medal and clasp). He was accompanied by a Portuguese collector named José Lopez, whom he brought from the Cape Verde Islands and who remained with him throughout his wanderings. He collected many specimens during his stay in West Africa. He visited Fernando Po in 1902 and formed another valuable collection.

He next undertook a daring expedition, in company with his brother Claud, of the Scots Guards, and Capt. Gosling, of the Rifle Brigade, from the Niger to the Nile; during the three years which it occupied both his companions met their death. Undaunted by misfortune, sickness, and danger Alexander triumphed and gave his results to the world in two large volumes entitled 'From the Niger to the Nile.' He received the gold medals of the Royal Geographical Society of Antwerp (in 1907) and the Royal Geographical Society of London (in 1908). The full ornithological results of this expedition have not yet been published.

In his last trip he ascended Cameroon and then travelled through Wadai, where he met his death, and now lies buried beside his brother at Maifoni, a British post near Lake Chad.

During his lifetime Alexander published many papers in the 'Zoologist,' 'Ibis,' and 'Bulletin Br. Ornith. Club,' besides the two volumes referred to above, and the "Birds of Kent" in the 'Victoria History of the County of Kent.'

V.—Occasional Notes.

1. WHITE STORKS NEAR BETHLEHEM, O.F.S.—I have noticed that the White Storks are very fond of feeding in the close proximity of veldt fires, some even approaching to within a couple of feet of the actual blaze, and appear to be very busy catching insects &c. which are driven out by the heat.

PERCY E. HALE.

Bethlehem, O.F.S.,
21. 2. 11.

2. STRANGE FLIGHT OF SWALLOWS.—On January 16th last a vast concourse of Swallows (species?) was seen at Silverton, near James' Halt. The time was 6.45 P.M., and the birds were flying in an E.N.E. direction very close to the ground. They were seen by two Silverton residents, who had no doubt that the birds were Swallows, and later by the N.C.O. in charge of the Silverton Police Station, through which the birds passed, still flying very low. It would be interesting to know what was the object of this concerted movement, and to which species they belonged.

Pretoria,
9 2. 11.

F. VAUGHAN KIRBY.

3. WHITE SWALLOW.—On January 1st of this year I was walking in from Silverton to Pretoria, and close to where the Delagoa Bay line crosses the road, about $1\frac{1}{2}$ miles west of Silverton, I passed a number of Swallows and Martins perched on the wire fence and along the telegraph-wires. Amongst them was one snow-white in plumage, and as I twice got within 30 feet of it I was able to assure myself that he carried no dark feathers whatever. The first time I approached it from the front, the bird being very tame and confiding; then it flew up, circled in the air a few times, and again settled, this time permitting me to creep through the wires and approach it from behind and as closely as before. Most of the Swallows accompanying it were *Hirundo albigularis*, with a few *H. semirufa*.

Mr. R. T. N. James, of Silverton, has since informed me that he has seen a white Swallow at the same spot; but though I have passed it several times since, I have not seen the bird again.

F. VAUGHAN KIRBY.

Pretoria,
9. 2. 11.

4. NOTES FROM EAST LONDON.—During the last year or so I have been giving some little attention to the notes and calls of birds. Those that puzzle me seem rather to increase than diminish in number: our thick bush often stands in the way of one making certain.

Yesterday I was watching the antics of a Blue Crane (*T. paradisea*) in our Public Park. He knows me well, and as usual greeted me with his screaming croak; but when I had strolled away thirty yards, I was surprised to hear coming from him a short churring sound, suggestive of that the Nightjar produces, but, of course, ever so much deeper, though by no means loud. He stood fixedly gazing after me, and holding his bill a little bit up, whilst he expressed himself in that, to me, unusual manner.

I have been assured by two different farmers of late that both the "Piet-mijn-vrouw" Cuckoo (*Cuculus clamorus*) and the Bromvogel (*Bucorax cafer*) may be occasionally heard calling well on towards midnight. There was a case under my notice recently in which the Black-and-White Cuckoo (*Clamator jacobinus*) laid its egg in the nest of the Cape Wagtail.

JOHN WOOD.

East London, C.C.,
10. 12. 10.

5. OBITUARY: DR. J. B. GREATHEAD.—Those members of the Union who had the good fortune to know the late Dr. J. B. Greathead, of "Greystone," Grahamstown, will be grieved to hear of his death at the age of 54. He had retired and taken a farm called "Vanwyksfontein," near Norvals Pont, in the Northern Cape Colony.

He was a keen sportsman, and on his last shooting-trip to Rhodesia fell ill and died at Serenje, on the way from Mpika to Broken Hill, on or about the 17th October, 1910, after an illness of about six weeks.

He and a friend had only left Fort Jameson a fortnight when he got laid up with trypanosomes in his blood, and when they got as far as Serenje pneumonia set in and Dr. Greathead died.

A genial gentleman, a true sportsman, and a keen field-naturalist, he will be missed by many friends. A. K. H.

VI.—*Short Notices of Ornithological Publications.*

1. *The Ibis, a Quarterly Journal of Ornithology.*

The October 1910 number contains a paper by Dr. A. Bannerman, B.A., on the Birds of British East Africa, collected by A. B. Percival, illustrated by a coloured lithograph of *Pytelia nitidula*, male and female, of which the British Museum contains an immature male from Durban, collected by Godge. Descriptions are now given of the adult male and female.

Mr. Percival also procured a specimen of *Cerchneis amurensis*, with the white under wing-coverts.

This number also contains an account of the fifth International Ornithological Congress in Berlin, which seems to have passed off very successfully.

We have also a full account of the late Capt. Boyd Alexander and his Ornithological work, with portrait and a list of publications.

The January 1911 number contains rather a scathing criticism on Gunning and Haagner's 'Check-list of South African Birds,' the reviewer taking great exception to the departure from the arrangement and nomenclature of W. L. Selater's Check-list of 1905, which is in many cases quite incorrect. Why do Dr. Sharpe and Prof. Reichenow agree in so many instances? (*vide* 'Hand-list of Birds'). If an end is to be put to this incessant changing of names, the sooner we conform to the international rules of

nomenclature the better for all concerned, as the conservatism of a few of the good old school will not stem the tide. No one regrets more than we do the alteration of old established names, but we also recognise the vital fact that the sooner all conform to hard-and-fast rules the sooner will an end be put to our troubles.

2. *Transactions of the Zoological Society of London*, vol. xix. part 4, March 1910.

This issue of the Society's 'Transactions' forms No. 16 of the Ruwenzori Expedition Report, and deals with the Birds collected by the Expedition. The paper is by W. R. Ogilvie-Grant, F.Z.S., &c., and is followed by an Appendix "On some Points in the Anatomy of *Bradypterus cinnamomeus*," by W. P. Pycraft.

We are told in the Introduction that the collection of Birds made was very complete, only four birds seen and heard were not obtained. Twenty species peculiar to the Ruwenzori Mountain were collected. Four purely South African forms range north into the locality (viz., *Cinnyris mariquensis*, *Schoenicola apicalis*, *Irisor viridis*, and *Turnix nana*), and ninety-four widely distributed African species were procured, such as *Dicrurus afer*, *Sitagra ocellaria*, *Quelea quelea*, *Pyromelana xanthomelas*, *Coliuspasser ardens*, *Vidua serena*, &c. About ninety-four species found in South Africa, all told, were obtained, including such as extend beyond the range of the African Continent. Three hundred and eighty-five species were procured, including twenty-seven new to science, described in the Bulletins B. O. C. for 1906 to 1909 by Mr. Ogilvie-Grant.

This exhaustive piece of work is illustrated by ten beautiful lithographic plates by Grönvold, nine of birds and one of eggs. The latter contains, amongst others, representations of *Emberiza flaviventris* (2), *Camaroptera griseoviridis*, *Edicnemus vermiculatus*, and *Caprimulgus fossei*.

3. *The Aricultural Magazine*, November and December, 1910.

The November number contains, *inter alia*, an interesting

article on some birds in confinement by Dr. A. Günther, M.A. F.R.S.

In Mr. Seth-Smith's series, "Bird-notes from the Zoological Gardens," he records the arrival of a pair of Gompaauws (*Otis kori*) and a Harrier Eagle (*Circiëtus pectoralis*), presented by Dr. Péringuey, of the South African Museum, to His Majesty King George's South African Collection (which is destined for the London Zoological Gardens). This is illustrated by a photographic plate of the two Paauws.

In the correspondence column we see that Mr. Phillipps is still busy with his old time-worn theme, the sexual differences of the Black-cheeked Love-bird.

The December number gives us an account of Ross's Touracou (*Musophaga rossa*) by L. M. Seth-Smith, illustrated by a coloured plate.

Here we also have a photographic plate of the Black-breasted Harrier Eagle.

4. *The Journal of the East Africa and Uganda Natural History Society*, vol. i. No. 1, January 1911.

In our August 1910 number of the Journal S. A. O. U. we had occasion to refer to this Society, and we have now received their first publication. We welcome this the first number of the new 'Journal,' and wish it long life. It is a very creditable production and consists of 57 pp. and 3 plates, one of which is a coloured representation of *Francolinus hubbardi* ♂ & ♀.

The paper of most interest to us is one by F. J. Jackson, C.B., C.M.G., &c., on "East Africa and Uganda Francolins," in which he deals with twelve species of *Francolinus* and four of *Pternistes*, only two of the former and one of the latter ranging into our limits. We also have an article on "Fishing on Lake Victoria, with notes on the Hadadah Ibis," illustrated by a photographic plate of the nest, with adult and two young ones.

The President of the Society is F. J. Jackson, Esq., C.B., C.M.G., F.Z.S., &c., and the Hon. Secretary, John Sergeant, Esq., Public Works Department, Nairobi.

VII.—*Obituary.*

JUST after going to press we received the sad news of the death of two more of our Members, Messrs. E. H. U. DRAPER, of the Johannesburg Laboratories, and ALFRED D. MILLAR, Col.M.B.O.U. and Vice-President of our Union. Both gentlemen will be sorely missed, especially the latter, who was a keen ornithologist and collector. A fuller review of his life and work will appear in a subsequent number.

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DECEMBER 1911.

No. 2.

VIII.—*Notes on a Collection of Birds in the Transvaal Museum from Boror, Portuguese East Africa.* By AUSTIN ROBERTS.

MEMBERS of our Union have already been made acquainted with some of the birds collected by Mr. F. Vaughan Kirby and myself, by their inclusion in the Check-list recently issued by the Director of the Transvaal Museum (Dr. J. W. B. Gunning) and the Hon. Secretary of our Union (Mr. A. K. Haagner). In these notes I propose to detail the collection with notes on observations made in the field, and give a short account of the nature of Boror territory.

Boror is situated midway between Quelimane, a port on the Quaqua River, and the southern strip of Nyassaland. To reach this District, or *Prazo* as it is locally called, we proceeded by a Portuguese mail-boat leaving Lourenço Marques on the 16th April, 1908, touched at the ports of Inbambane, Bartholomeu de Diaz, and Beira *en route*, and landed at Quelimane on the 21st. Here we were delayed for a few days until the necessary permits to proceed inland and shoot could be obtained. Our destination was Villa Pereira, but at that season the country was so swamped by the summer rains that it was impossible to get there by the most direct road, and we found it necessary to make a wide circuit *viâ*

Nhamacurra. Leaving Quelimane on the morning of the 26th, we travelled first by a diminutive railway-line to Maquival, then up the Makuse River by a small paddled house-boat to Maxixine, where we landed at about 4 P.M. We spent the following day at this place and secured a few specimens, while our outfit was sent on by boat to Nhamacurra. On the 28th we travelled by machilla as far as Nhamacurra, calling a short halt at Malinguine, a station of the Boror Company on the Makuse River, and securing a few specimens. Another delay of a day occurred, owing to the non-arrival of our outfit, and we did not reach our destination until the evening of the 30th. On the last stage of our journey the path was so swamped in many places that our machilla-bearers were up to their necks in water and mud, and we had to cling to the pole while they held it at arm's length above their heads.

We were soon made to realize that May was not by any means the best month for either sport or collecting, and we had to put up with much inconvenience on account of the rains which were still falling. Tangled grass surrounded us on all sides and was always wet, so that to venture off the paths always resulted in our being soaked to the skin and a change of clothing was necessary after every excursion; this grass also rendered the stalking of specimens very difficult and they were often lost, as anyone who has collected under such conditions will understand. Mosquitos swarmed in countless numbers, even harassing us in the shade during the daytime, and, needless to say, it was not long before both of us were attacked by malaria. These attacks recurred regularly, almost to a day, every fortnight. But apart from these difficulties the bird-life was so interesting and varied that we felt amply compensated, hardly a day passing during the first three months in which we did not observe some one or more species new to us.

Kirby's primary reason for making the trip was for the purpose of shooting lions, particularly some troublesome man-eaters, which were carrying off natives in different parts of the *praco* at the rate of about twenty per mensem.

Lions were shy and difficult to get at on account of the rank grass, but numerous ; on one day to our certain knowledge there were fifteen within ten miles of our camp, in three parties. Kirby's time was therefore mainly taken up in trying to secure large game for bait, but notwithstanding he managed to preserve many interesting specimens, even at the risk of scaring lions from the neighbourhood by the report of the shot-gun. Finding the neighbourhood of Villa Pereira unsuitable for his object, he remained there for only one month, and then proceeded to Muriela's kraal at the junction of the Mungusi and Kane Rivers, while I continued to collect specimens at Villa Pereira for another month. The following is a record of his itinerary :—

Villa Pereira	...	...	May ;
Muriela	...	...	June and to 7th July ;
Manta	...	...	7th to 30th July ;
Malava and Namaserengo.			August ;
Povarello	...	...	September to 15th October.

At the last place the attacks of malaria took a serious turn, and developed into blackwater fever, which necessitated his going to hospital in Quelimane.

Leaving Villa Pereira at the end of June, I encamped at the following places :—

Mpimba	...	...	1st to 16th July ;
Ngamwe	...	...	18th July to 4th August ;
Namagoa (<i>viá</i> Villa Pereira).			5th to 21st August ;
Muandama (<i>viá</i> Buruma).			22nd August to 9th Sept. ;
Namabieda	...	...	9th to 31st September
(during this period visiting Marunganya for two days) ;			
Buruma	...	...	1st to 21st October ;

hearing then of Kirby's serious illness, I proceeded by way of a path running parallel to the Inhamacurra River to the village and Sugar Estate of that name, to make enquiries, and then to Villa Pereira to pack up our collection and kit in readiness for leaving the country ; but hearing from Kirby that he would not be able to undertake the voyage for

some time, I spent some ten days at Matiwe, near Ngamwe, finally returning, *viâ* Rara, to Quelimane about the 13th November.

The country between Quelimane and Nhamacurra in April was one almost continuous marsh, patches of jungle and tangled forest covering the greater extent, and for the rest here and there open tracts covered with tall rank grass. The Inhamacurra River is tidal up to the sugar estate of that name ; beyond that it is hidden for some distance by tangled forest, except where natives have made clearings for agricultural purposes, and gradually becomes less sluggish, and in its higher reaches becomes rocky and more interesting. The same description applies to the other rivers we saw, the lower reaches being more or less bounded by tangled forest and extensive reed-beds, and the higher more easily approached and a happy relief from the everlasting forest.

Villa Pereira (300 feet above sea-level according to Kirby) is situated about fifty miles as the crow flies N.N.W. of Quelimane, on the west bank of the Liqvari River. It is the headquarters of a Portuguese clerk of the Boror Company, who has in his charge the collection of taxes from natives in the district of Rara, and the superintendence of a rubber plantation, which was, during our stay, taking the place of coffee. This station was an ornithologist's paradise, as within easy reach it contained various classes of forest, a large clearing, stretching for a mile and half along the river bank, and a large number of orange-trees which attracted frugivorous birds.

Namagoa is very similar to Villa Pereira, but lacks the open ground and a river. Mpimba is situated in the heart of tangled forest and open marshy glades, and about twelve miles S.W. of Villa Pereira. Manta is in much the same class of country, but even more marshy, and some seven miles S.W. of Mpimba. Muriela is about nine miles W. of Villa Pereira, at a point on the Mungusi River where it gradually assumes the rocky nature of its bed characteristic of the higher reaches, and the forest to the N. is more open. Ngamwe is on the banks of a beautiful rocky tributary of

the Mungusi, which it joins about midway between that place and Guju, and about thirty miles N.W. of Villa Pereira. At this place I found large game fairly plentiful, especially elephants, the forest open and the grass short and not so troublesome as in the marshy region. Matiwe is about eight miles W.S.W. of Ngamwe, a few miles from the Lualua River, the boundary of Boror territory, and the nature of the forest in the vicinity is much like that at Ngamwe. Guju is about six miles S.E. of Ngamwe, on the Mungusi River and the path leading to Villa Pereira. Namagoa is situated on the road between Villa Pereira and Nhamacurra, about nine miles from the former. Buruma is about fourteen miles N. of Namagoa, in open and more or less dry forest. Muandama is six miles to the E.N.E. of Buruma, and here the first view over the forest to the S. was obtained, as it is situated on higher ground which slopes away towards Nhamacurra. Large game, except elephants and rhinoceros, was here more easily obtained than to the S., as the grass was shorter. Namabieda is about ten or twelve miles to the N.E. of Muandama, and a few miles south of Parakomi Mountains. These mountains are table-like, and rise some five hundred feet sheer above the surrounding forest, forming the first of a series of similar mountains connecting up to the N.W. with Chiperone. Around the base of these are numerous mound-like kopjes devoid of vegetation and intersected by strips of forest, the haunts of innumerable baboons, rock-rabbits, rock-hares, klipspringer (?), reed-buck, bush-buck, duikers, eland, Lichtenstein hartebeest, sable antelope, water-buck, rhinoceros, and the rarer Johnston's wildebeest and zebra; besides these, leopards, jackals, and hyenas were numerous, but, strange to say, lions are said never to frequent the neighbourhood, and natives travel fearlessly at night, which they would never venture to do a few miles to the south. A man-eater, however, visited Marunganya when I was at Namabieda and took the head-man of a village, but it had left the neighbourhood when I went there to shoot it a few days later. The whole aspect of the forest was undergoing a change during my stay at Namabieda

on account of grass-fires, which were sweeping all the dry herbage before them ; procuring game after this was easy, and many interesting forms of small animals which before had been hidden in the undergrowth and grass were then observed. Trees were found burning weeks after the grass-fires had passed, and it is noteworthy that large game had become so accustomed to hearing the crash of trees that had been gradually burnt away at their roots about this time, that they took no notice of the report of firearms, and only became alarmed when they caught sight of us. The last showers of rain had fallen in July and the streams had become drier and drier, until by the end of September only pools were to be found here and there in their beds. Mists, however, continued to rise during the night and hang over the forest until the sun dispersed them, and these produced a certain amount of moisture for the trees ; but after the grass-fires even these disappeared, and not a breath of air was there to stir them, so that very little shelter was afforded from the blazing sun, and the heat was most oppressive. Under these conditions, the preservation of specimens was most difficult, and but little collecting was done. At Buruma it rained for one day, followed by two misty days, producing the most wonderful results in the springing into life of green herbage, and the awakening of animal and bird life. Note the number of birds' eggs which were collected at this time ! But from then onwards until we left the country it did not rain again, and the tender green herbage drooped and withered. When returning to Quelimane the aspect of the country was in extraordinary contrast to what it had been six months before, the one-time marshes being now nothing but bare and uninteresting parched-up ground, bounded by dreary-locking forest and relieved only in a few places along the banks of streams, where the soil was able to retain some moisture, by the green foliage of some hardier species of trees. The effect of this peculiar climate upon bird-life will form the subject of another article which is now in the course of preparation.

Before proceeding to detail the collection, I wish to take

this opportunity of expressing the sincere thanks of Mr. Kirby and myself for the kindness we received at the hands of our friends in Boror, particularly Messrs. le Comte Stucky de Quay, G. Stucky, and — Bonnet, of the Boror Company, and to Mr. R. Trotman, of the W.N.L.A., for many acts of kindness to Mr. Kirby during his illness.

In the following enumeration, all measurements have been taken in millimetres, and classification from Reichenow's 'Die Vögel Afrikas.' Abbreviations refer to :—I. iris ; B. bill ; L. legs (and feet). Leng. length ; W. wing ; Tl. tail ; Ts. tarsus ; C. culmen. Measurements recorded of the length have been taken along the ventral surface from specimens in the flesh, and all others from the dried skins. Reference has been made after each name and authority to Reichenow's No. of species as in his work above mentioned. The figures in brackets refer to the number of specimens collected by us and now in the Transvaal Museum. Following this, when members of the species were only observed by me during certain months, these have been quoted, and when observed during all months of our stay, the species is marked as being resident.

PHALACROCORAX AFRICANUS (Gm.). R. 89. (1.) Nov.

A specimen was shot while perched on a rock in the Mungusi River near Guju.

CHARADRIUS TRICOLLARIS (Vicill.). R. 155. (1.) Resident.

Not uncommon and usually found on stretches of sand in the beds of rivers. A pair seen at Villa Pereira on 20th October appeared to have young ones, judging by their actions when approached.

XIPHIDOPTERUS ALBICEPS (J. Gld.). R. 170. (1 F.) April and May.

I. sea-green ; B. basal two-thirds yellow, apical one-third black ; L. pale green. Skin round eye greenish yellow ; wattle, upper one-third greenish, lower two-thirds yellow. Leng. 318 ; W. 205 ; C. 35 ; wattle 32.

A large flock was found at Villa Pereira when we arrived there, but they left a week later and were not seen again.

ÆDICNEMUS VERMICULATUS, Cab. R. 177. August.

A few individuals were seen on the banks of the stream at Ngamwe, but they were very shy and no specimens were secured.

OTIS MELANOGASTER, Rüpp. R. 224. April and July.

A specimen was shot at Nhamacurra, where numbers were seen scattered singly about the borders of the sugar plantations, but it was not preserved. A few were also seen in marshy glades at Mpimba.

ACTOPHILUS AFRICANUS (Gm.). R. 232. (2.) July?

(Data lost.) W. 139; Tl. 41; Ts. 58; to top of shield 42.

These two specimens were procured by Kirby on an open sheet of water in which lotus plants were growing, between Mpimba and Villa Pereira. They are much marked with white and seem to be juvenile birds.

LIMNOCORAX NIGER (Gm.). R. 240. (2.) July?

(Data lost.) W. 98-103; Tl. 42-44; Ts. 40; C. 22-23.

These specimens have more or less white on the throat, which is characteristic of young birds. The smaller is the darker of the two specimens.

Kirby secured these at the same place as the foregoing.

PODICA SENEGALENSIS (Vieill.). R. 259. (1 F.) Resident.

I. dull yellow; B. dark brown above, base scarlet; scarlet below, base white; L. vermilion-pink. Leng. 526; W. 196; Tl. 145; C. 45.

This specimen was shot at Muandama on 6th September; its ovaries were much enlarged, and eggs would no doubt have been laid in a few days. These birds were not uncommon on quiet pools near rocks on the higher reaches of the rivers, but very shy. They usually dive at once on alarm, and take shelter under weeds or overhanging banks;

if shelter is not available, they take to flight, just skimming the water as they do so, but never remain longer on the wing than necessary.

LEPTOPTILOS CRUMENIFER ([Cuv.] Less.). R. 285. Sept. and Oct.

The Marabou Stork was frequently seen in twos or threes in the neighbourhood of Muandama and Buruma, sometimes in company with Vultures and other scavengers, feeding on the remains of animals killed by lions.

ABDIMIA ABDIMI (Licht.). R. 287. Nov.

Several parties of two or three were seen on the Kane River near Matiwe; they took to the tops of tall trees when disturbed, and would not let one get within gunshot range.

BUTORIDES ATRICAPILLUS (Afz.). R. 304. (1 F.) Resident.

I. lemon, inner ring orange-yellow; B. black, genys greenish; L. brownish yellow; bare skin of lores and eyelids greenish yellow. Leng. 443; W. 172; Tl. 60; C. 63.

Solitary birds were seen at Villa Pereira, Matiwe, Ngamwe, and Muandama, usually perched in small trees overhanging water. At the last-named place a nest was discovered in a small tangled tree overhanging a pool of water; it was a platform of twigs and roots and contained two partly incubated eggs. These eggs are pale green, rather elongated in shape, and measure $40\cdot5 \times 27\cdot9$ and $39\cdot1 \times 27\cdot3$, respectively.

ARDEA RALLOIDES (Scop.). R. 308. (1 F.) May.

I. lemon-yellow; B. above dark brown, below dull greenish yellow; L. and bare skin of face yellowish green. Leng. 450; Tl. 69; W. 198; Ts. 58; C. 62.

This specimen was shot on a pool of rain-water in the clearing at Villa Pereira, and was in a starved condition and very tame. It was the only one observed.

HERODIAS ALBA (Linn.). R. 317. (1 M.) May.

I. creamy white; B. yellow, darker at the tip; bare skin

of face greenish yellow, the lores yellower and gape greener ; I. black, tinged with green. Leng. 804 ; W. 348 ; Tl. 137 ; Ts. 145 ; C. 95.

This specimen was shot on the Liquari River, and others were also seen in open swamps.

VINAGO DELALANDEI ORIENTALIS, Gun. & Rbts. (3 M., 1 F.) Resident.

This subspecies was described from these specimens in the 'Annals of the Transvaal Museum,' 1911. It is distinguished from the typical *V. delalandei* in having a clear wash of yellow over the greenish feathers of the head, neck, and under surface of the body, and in being slightly smaller, MM. measuring : W. 167-174, Tl. 94-102 ; and FF. : W. 163-165, Tl. 92-97. The F. resembles *V. delalandei* but is considerably smaller.

This Green Pigeon was fairly plentiful, and was usually to be found eating the fig-like fruit of a parasitic tree in the mornings and evenings.

TURTUR CAPICOLA TROPICUS, Rehw. R. 342 b. (1 F.) Resident.

I. deep umber ; B. black ; L. purplish pink. Leng. 255 ; W. 150 ; Tl. 106 ; Ts. 21 ; C. 13.

Very common in the vicinity of native villages.

TURTUR SEMITORQUATUS (Rüpp.). R. 337. (1 M., 1 F.) Resident.

I. Indian red ; B. black ; bare skin of face and L. purplish pink. M. : Leng. ? ; W. 190 ; Tl. 130 ; Ts. 26 ; C. 19. F. : Leng. 298 ; W. 178 ; Tl. 120 ; Ts. 23 ; C. 17.

Very common in native gardens.

CHALCOPELIA AFRA (Linn.). R. 354. (1 F.) Resident.

I. dark brown ; B. ashy grey ; L. ashy pink. Leng. 254 ; W. 106 ; Tl. 80 ; Ts. 18 ; C. 14.

This skin is somewhat paler than those from the Cape.

The Metallic-spotted Dove was plentiful in the marsh region, and often heard but seldom seen.

NUMIDA MITRATA, Pall. R. 361. (1 F.) Resident.

I. straw-yellow; eyelids, upper half of wattle, and bare skin of neck greenish; B. red at base, changing to dull horn-colour at tip; casque dull horn-colour, lighter posteriorly; lower half of wattles scarlet; bare skin of head dull scarlet; an irregular band extending from the occiput to feathers on the lower hind-neck, black; throat dull Prussian blue. Leng. 527; W. 268; Tl. 165; Ts. 75; C. 25; casque from occiput to peak 14.

Large flocks of these Guinea-fowl were found in the neighbourhood of all large clearings. Native name "Kanga."

PTERNISTES HUMBOLDTI (Ptrs.). R. 378. (2 M., 1 F.) Resident.

Native name "Kuali."

I. light brown; B. upper mandible, basal two-thirds brownish, apical third dull red-brown, lower mandible orange; L. dull red-brown. M.: Leng. 353; W. 193-203; Tl. 82-95; Ts. 59-60; C. 23-24. F.: Leng. 325; W. 170; Tl. 74; Ts. 51; C. 20.

The smaller of the two MM. has two spurs, and the larger only one, on each leg.

The White-ringed Pheasant has a noisy habit of crowing from the top of some conspicuous perch, such as an ant-hill or stump of a tree; this might be described as "Kwaherie," repeated several times with a stress on the last two syllables, at first increasing in volume and then dying down to a chuckling note. It is a common bird in old clearings, and is often caught in traps by natives. Newly hatched chicks were brought to us by natives early in May.

FRANCOLINUS COQUI (A. Smith). R. 416. (2 M.) Resident.

I. pale brown; B. above dark brown, below light brown, tip yellow; L. pale yellow. Leng. 298; W. 138; Tl. 70; Ts. 28; C. 23.

These two specimens agree with the description of *F. coqui angolensis*, Rothschild, but as they have only half-developed

spurs and are also somewhat similar to younger specimens of typical *coqui* from Transvaal which I have seen. I do not feel justified in placing them under that subspecific name.

The Coqui Francolin was not uncommon on the higher sandy ridges where the grass was short and the forest more or less open. It was usually found in coveys of about six until the beginning of September, when the breeding-season commenced.

FRANCOLINUS KIRKI, Hartl. R. 422. (2 F.) Resident.
Native name "Kuerikuechi."

I. light brown; B. dark brown, paler at the base; L. dark brown. Leng. 295-314; W. 146; Tl. 86; Ts. 35-37; C. 23?

This Francolin was fairly plentiful in the marsh region, and usually found in coveys of five or six. It reminded me very much of *Haplopelia luvata* in its manner of running for a short distance when alarmed and then rising with a startling whirr; it was remarkably sharp in dodging through the trees in flight and was then almost impossible to hit. Small coveys were observed on several occasions running along the horizontal branches of tall trees at dusk, and no doubt they always roost in trees to be safe from their numerous enemies. Kirby found two nests near Muriela in June and July, placed in patches of grass at the foot of small bushes. The eggs vary from cream-colour to salmon-pink and measure 40.4-43.8 x 31.9-32.3.

FRANCOLINUS spec.? Resident.

A large Francolin, closely resembling *F. levaillanti*, was frequently flushed near Parakomi Mountain, but I did not succeed in procuring a specimen.

NEOPHRON MONACHUS (Temm.). R. 453. (1.) Resident.
Native name "Kovi." (Data lost.)

W. 490; Tl. 247; Ts. 85; C. 33.

The Hooded Vulture was very common throughout the *prazo*.

KAUPIFALCO MONOGRAMMICUS (Temm.). R. 453. (3 M., 1 F.) May-June.

I. bright sienna; B. above black, cere and base of lower mandible orange; L. orange. MM.: Leng. 309-322; W. 115-222; Tl. 128-137; Ts. 49-51; C. 17. F.: Leng. 336; W. 238; Tl. 155; Ts. 53; C. 17.

Very common at Villa Pereira. One of the specimens was killed while it was eating a small bird.

ASTUR POLYZONOIDES (A. Sm.). R. 456. (1 juv. M., 1 juv. F.)

I. deep orange-red; B. black, cere yellow; Ts. pale yellow, claws black. M.: Leng. 398; W. 164; Tl. 135; Ts. 41; C. 10. F.: Leng. 279; W. 190; Tl. 147; Ts. 44; C. 12.

The M. was shot by Kirby at Malava, N.W. of Parakomi, and the F. by myself at Villa Pereira, while it was devouring a Levaillant's Barbet (*Trachyphonus cafer*). I do not remember to have seen any more.

MILVUS ÆGYPTIUS (Gm.). R. 499. (1 M., 1 F.) Resident.

M.: I. light brown; B. horn-yellow; L. yellow. Leng. 507; W. 410-415; Tl. 253-275; Ts. 40-45; C. 22-24.

The Egyptian Kite was very common throughout the *prazo*, and on several occasions was seen to dash down and make off with scraps of meat thrown away by the native servants as they squatted round the fire. A nest was found at Villa Pereira about the 30th October, but unfortunately the bird in leaving the nest kicked out and broke the only egg she was sitting on. The nest was a rough structure of sticks placed in the fork of a tree about twenty feet from the ground, within a few yards of a much-frequented foot-path.

CERCHNEIS DICKINSONI (Sel.). R. 519. May and June.

A White-headed Hawk was often seen at Villa Pereira, usually perched on the top of some dead trees left standing in the clearing, and repeated attempts were made to secure

a specimen ; but they always managed to escape into the forest when wounded. The Transvaal Museum has a specimen recently collected at Hector Spruit, and I think that the birds we saw were referable to this species.

BUBO LACTEUS (Temm.). R. 532. May, June, and August.

The Giant Eagle-Owl was often seen at Villa Pereira, and several were wounded but always succeeded in escaping into the bush. A pair was also seen on several occasions near Namabieda. Its note is a slow mournful whistle, usually uttered at dusk while the bird is perched on the top of some conspicuous tree left standing in a clearing.

BUBO MACULOSUS (Vieill.). R. 536. (1.) June.

I. yellow ; B. & L. black. Leng. 495 ; W. 330 ; Tl. 190 ; C. 26.

Only noted from Villa Pereira, where this specimen was procured in open forest.

PISORHINA CAPENSIS PUSILLA, Gun. & Rbts. (2 M.) Sept.-Nov.

The description of this new subspecies was taken from these two specimens (*vide* 'Annals Transvaal Museum,' 1911). It differs from the typical *P. capensis* in being smaller, whiter on under surface of body and less thickly marked, and the ground-colour greyer.

This Scops Owl was first observed at Namabieda, a native pointing it out to me one evening as it was perched in a tree close to my camp ; subsequently, when I had learnt to distinguish its call-note, I often heard it calling at night. It sometimes calls also during the daytime when one happens to pass near the tree in which it is perched, but it is then most difficult to locate, as it stops calling when one gets beneath the tree. The note is a quiet " Kerre kerre."

SYRNIUM WOODFORDI (A. Sm.). R. 551. (1 M.) May and June.

I. black ; B. & L. pale yellow, culmen pale brown. Leng. 335 ; W. 216 ; Tl. 160 ; C. 10.

The Bush Owl was only observed at Villa Pereira, usually perched in matted trees overhanging streams.

GLAUCIDIUM CAPENSE RUFa, Gun. & Rbts. (2 M., 2 F.) Resident.

This subspecies was described from these specimens in the 'Annals of the Transvaal Museum,' 1911. It differs from the Cape race in having from ten to twelve bars only on the tail, and in being lighter-coloured generally.

This species was fairly plentiful, and was observed in all parts of the *prazo*. It frequently flies about during the daytime like its congener, *G. perlatum*, of the Transvaal; but is more active during the evening. Three fresh eggs were taken at Namabieda on 26th September; the nest was a hollow, about a foot deep, in the top of a small tree which had snapped off about 20 feet from the ground, and was discovered by seeing the bird fly from it. The eggs are glossy white, almost round in shape, and measure 32-34 × 27.3-27.5.

When travelling along the road between Nhamacurra and Villa Pereira in October I observed one of these Owlets fly from a hole in a tree: one of the native servants was sent up the tree to investigate, and presently made out that the hole was occupied by a "gorra-gorra" (squirrel); after trying to poke it out with a stick, he managed to lay hold of the tail and attempted to pull it out. This he did not succeed in doing, and in the end half of the tail was left in his hand; throwing this down to me, I noticed at once that it was not an ordinary squirrel, of which we had obtained a fair number of specimens, so climbed up after the native and succeeded in driving it out. To my surprise it sprang clear of the tree and floated round in graceful circles until striking the trunk of another tree, up which it scurried at a surprising pace and hid in the topmost branches. With the "four-ten" I managed to wound it and it came floating slowing down, eventually clinging to the trunk of a tree near the ground. The skull was unfortunately lost, but the skin brought back. It belongs to the genus *Anomalurus*, I believe, but has not been placed.

POICEPHALUS FUSCICAPILLUS (Verr. Desm.). R. 568. (1 M., 1 F.) Resident.

I. greenish yellow; B. above dark brown, below black; L. black. M.: Leng. 213; W. 150; Tl. 61; C. 20. F.: Leng. 201; W. 144; Tl. 60; C. 19.

The Grey-headed Parrot was very plentiful and usually found in large flocks until the breeding-season—July—when nests were started. It is very partial to berries of manioc cultivated by natives, and is often to be seen quite close to the huts in villages. Nests were examined up to the end of September, but eggs had not yet been laid.

GALLIREX CHLOROCHLAMYS, Shelley. R. 590. (1 M., 3 F.) Resident.

I. dark brown; B. & L. black; bare skin of face crimson-scarlet, except a semilunar white mark below the eye. M.: Leng. 437; W. 183; Tl. 192; Ts. 46; C. 26. F.: Leng. 440-446; W. 170-182; Tl. 193-203; Ts. 44; C. 25-26.

The Zambesi Purple-crested Lourie was fairly plentiful in the marsh region, frequenting tall trees in the forest.

TURACUS LIVINGSTONEL, G. R. Gray. R. 606. (1 M., 2 F.) Resident.

I. light brown; B. dark red, tip paler; L. black. Leng. (1) 417; W. 190-210; Tl. 220-225; Ts. 42-47; C. 22-25.

This species was not so common as the foregoing, and was first observed at Ngamwe in large trees on the river bank, and subsequently at Namagoa in large trees in more or less open forest. Its alarm chuckle is indistinguishable from that of *C. corythaire*.

CUCULUS SOLITARIUS, Steph. R. 636. (1 F.) Sept.-Nov.

I. dark brown, eyelids yellow; B. dark brown, base of lower mandible yellow; L. and gape yellow. Leng. 304; W. 174; Tl. 155; Ts. 21; C. 22.

The Red-chested Cuckoo was very common from the beginning of October onwards, but very shy.

CUCULUS spec.?

A large species of Cuckoo was very common at Buruma, uttering a "Hoop hoop hoop" throughout the day, and frequently at night as well. A specimen was shot at that place, but it was in such poor plumage that it was not preserved.

CHRYSOCOCCYX CUPREUS, Bodd. R. 642. Oct.—Nov.

A specimen was shot at Buruma and preserved, but lost on the journey. It was a common species after its arrival, at the end of September.

CHRYSOCOCCYX KLAASI (Steph.). R. 643. (2 M.) Resident.

I. light brown; B. horn-blue; L. slate-blue. Leng. 176; W. 102; Tl. 76; Ts. 16; C. 15.

A few were seen in the tangled forest at Mpimba in July, and a specimen secured there; but they were not heard calling until September. The other specimen was shot at Buruma.

METALLOCOCCYX SMARAGDINEUS (Swains.). Oct.—Nov.

A specimen was procured at Villa Pereira in October, but lost on the journey. It was first heard calling at the end of September, and seemed to be fairly plentiful.

INDICATOR INDICATOR (Gm.). (1 F.) Resident.

I. straw-yellow; B. & L. dark brown. Leng. 185.

The Greater Honey-Guide was rather rare and I remember to have seen only two—one procured at Villa Pereira, and another at Namabieda.

INDICATOR MINOR, Steph. R. 652. (2 M.) Resident.

I. umber-brown; B. dark brown, base of lower mandible white. Leng. 163; W. 90.

These two specimens were taken to be a pair when shot, as they were perched close to each other on the same branch, but dissection proved them to be males; this is remarkable, because they are very pugnacious and jealous of other

members of their own species straying into their own particular hunting-grounds. This species was much in evidence whenever chopping trees was undertaken by natives, and it then always sought to lead them to bees' nests.

LYBIUS ZOMBÆ ALBIGULARIS, Neum. Bull. B. O. C. vol. xxi. p. 46. (1 M., 2 F., 1 ?.) Resident.

I. Indian red; B. black; L. dark slate-blue or black. Leng. 182-187; W. 82-88; Tl. 51-56; C. 19-22.

This Barbet was common wherever we encamped, and its noisy duets and call-notes were always much in evidence. I once witnessed a remarkable gathering of these birds at Mpimba. Seeing large numbers flying towards a certain large dead tree and causing a tremendous commotion in its branches, I approached closer and found that there were scores of them, all in pairs, uttering their harsh duets, bobbing their heads up and down, each pair regardless of the others, and, as can be imagined, making a frightful din and discord; others continued to join their ranks for about fifteen minutes, when they gradually dispersed in all directions, still in couples.

A nest containing five much incubated eggs was found at Buruma on 21st October; it was of the usual Barbet type and with so narrow an entrance that the bird could just manage to squeeze in and out; the bottom of the nest was filled to the depth of about an inch with finely ground touch-wood, in which the eggs were half-buried. The eggs are pure white, inclined to taper at the acute end, and measure 22.7-24.6 × 17.3-18.1.

BARBATULA BILINEATA (Sund.). R. 711. (1 F.) July.

I. dark brown; B. & L. black. Leng. 116; W. 55; Tl. 30; C. 13.

Only one was seen and secured. It was perched in a tree in which were large numbers of Sunbirds, attracted by the flowers of a parasitic plant.

BARBATULA EXTONI, Lay. R. 718. (2 M., 1 F.) Resident.

I. dark brown; B. black; L. dark brown. Leng. 108-112; W. 59-62; Tl. 30-33; C. 10-11.

Exton's Barbet was not uncommon, and usually found consorting with other small birds which were to be found in parties hanging to the leaves of large trees in search of insects.

TRACHYPHONUS CAFER (Vieill.). R. 724. (1.) Resident.

I. pale red; B. horn-green, tip dark brown; L. slate. Leng. 226; W. 100; Tl. 84; Ts. 28; C. 24.5.

These Barbets were not noticed until one was found in the clutches of a Little Banded Goshawk; subsequently I came across a fair number, but they were more often heard than seen, as they kept to the tops of tall matted trees. The note is a prolonged cricket-like sound, while uttering which the body quivers with the effort.

DENDROMUS MALHERBEI (Cass.). R. 746. (1 M., 4 F.) Resident.

I. chocolate-brown; B. dark brown, lower mandible horn-colour; L. olive-green. Leng. 162-180; W. 91-97; Tl. 58, 66; C. 14-15.

Malherbe's Woodpecker was everywhere common. Its tapping is rapid and impatient, but not very loud, and individuals were frequently seen attacking the seed-pods of trees. A clutch of two fresh eggs was taken at Matiwe on 3rd November, the measurements of which are 24.8×18.5 and 22.6×18 respectively.

DENDROMUS CHRYSURUS 'ABINGONI (A. Sm.). R. 747 a. (2 M.) July.

I. deep red-brown; B. dark brown, base of lower mandible lighter; L. olive-grey. Leng. 215-217; W. 114; Tl. 68; Ts. 21; C. 24.

One specimen only was secured at Ngamwe, the other having been procured by us at Bartholomeu de Diaz during a short halt at that port.

DENDROMUS ALBIFACIES, Gnn. & Rbts. (1 M., 2 F.)
May-June.

The description of this new species has been taken from these specimens, details of which are to be found in the 'Annals of the Transvaal Museum,' 1911. It differs from *D. scriptoricauda*, Reichenow, in having a white eyebrow, pale band across the lower back, and its slightly larger size.

This Woodpecker was very shy and difficult to procure, as it is not so noisy as most species, seeking rather to avoid than attract attention. It has a knack of keeping out of sight behind the trunk or limb of a tree, not peeping curiously round to watch the actions of the intruder as do others, but content to remain out of sight until it finds itself observed, when it darts off to another tree and disappears behind the trunk again. Freshly killed specimens give off a strong but not unpleasant scent. It was only observed at Villa Pereira.

MESOPICUS NAMAQUUS (Leht.). R. 673. (3 M., 3 F.)
Resident.

I. Indian red; B. dark horn-colour; L. olive-green.
M.: Leng. 237-241; W. 133-136; Tl. 72-80; Ts. 21-23;
C. 34-37. F.: Leng. 227-239; W. 130-135; Tl. 71-72;
Ts. 22; C. 32-34.

The Bearded Woodpecker was very common, and its resonant tapping was one of the notable features of the forest; sometimes this tapping would be repeated at intervals for quite a long time, and usually when following up the sound I discovered that it was much farther off than expected; it was then also generally made by an individual which seemed to be trying to attract attention rather than drive insects from shelter in the decayed tree on which it was tapping. At other times occasionally small parties were disturbed amongst large trees, and they at once set up a chattering, and if still further disturbed, would dart off to other trees uttering a shrill screech of alarm. Freshly killed specimens smelt strongly of ants.

DENDROMUS HARTLAUBI, Malh. R. 766. (3 M., 7 F.) Resident.

I. hazel ; B. horn-brown ; L. olive-green. M. : Leng. 150-160 ; W. 87-94 ; Tl. 49-51 ; Ts. 16-17 ; C. 17-19. F. : Leng. 144-152 ; W. 87-92 ; Tl. 48-50 ; Ts. 16 ; C. 15-17.

This species was the commonest in the *prazo*, as can be seen by the number of specimens procured. One was shot in the act of pecking at a wild fig, but it may have been doing so to get at the grubs which infest that fruit. Nests were started early in August, but I did not find eggs until the 21st of October, when another nest was also found with newly hatched young ; they were usually made in half-decayed trees at a height of about fifteen feet from the ground. The eggs are white, three in number, and measure 23·8-24·7 × 18-18·5.

COLIUS STRIATUS MINOR, Cab. R. 777 *a*. (2 M.) Resident.

I. dark brown ; B. maxilla black, mandible grey ; L. ashy pink. Leng. 291-314 ; W. 92-94 ; Tl. 188-206 ; Ts. 23 ; C. 14.

The Lesser Speckled Coly was always common in the neighbourhood of European Stations, where orange-trees were cultivated.

APALODERMA NARINA (Steph.). R. 785. (1 M.) Resident.

(Data lost.) W. 131 ; Tl. 164 ; Ts. 16 ; C. 19.

The Narina Trogon was common in dark forest overhanging streams. Young birds were seen in May and June ; but judging by their call-notes, which were more often heard in October, I think that they breed about that time, and the young retain their juvenile plumage until the following spring.

CORACIAS WEIGALLI, Dresser. R. 791. (1 M., 1 F.) Resident.

I. grey-brown ; B. black ; L. brownish yellow. M. : Leng.

370; W. 161; Tl. 205 (shorter feathers 133); Ts. 22; C. 30. F.: Leng. 350; W. 167; Tl. 190 (shorter feathers 138); Ts. 23; C. 32.

This Roller was found in the drier open forest more frequently than in the marsh region. It usually perches on the top of some dead tree, sometimes singly but more often in family parties. One was startled from a nest early in November near Matiwe, but I was too early for eggs; the nest seemed to be one which had been made by Parrots and deserted before completion.

EURYSTOMUS AFER (Lath.). R. 797. (3 M., 1?) Sept.-Nov.

I. light dusky; B. pale yellow; L. greenish brown. Leng. 265-292; W. 168-180; Tl. 90-103; Ts. 18-20; C. 24-25.

The Cinnamon-backed Roller was first seen at Namabieda, and subsequently also to the south and near Villa Pereira. Clutches of two and four eggs were taken on the 14th and 16th of October, respectively, at Buruma. Many nests were observed in holes in decayed branches of trees, usually at a great height from the ground and inaccessible, and therefore not examined; any old Parrot's nest or natural hole is utilized, and the cock remains on guard in the vicinity, fiercely attacking intruders, in the shape of Hawks or other large birds, with loud, harsh shrieks, until the very often well-intentioned trespasser is only too glad to get away from the clamour. After having made one of these noisy sallies, it returns to its post, uttering croaks of self-satisfaction at having so ably discharged its duty! The eggs which were taken are pure white and measure 31.5-34.1 x 25-26.7.

[To be continued.]

IX.—*A Further Note on the Mandibular Hook of the Honey-Guide.* By ALWIN HAAGNER, F.Z.S., Col.M.B.O.U.

SINCE writing my account of the strange occurrence of a pair of hooks on the extremity of the beak of the nestling "*Indicator*," or Honey-Guide (see 'Journal of the S.A. Ornithologists' Union,' June 1907, pp. 1-5), I have come across another case which increases our knowledge a little. The specimen from which my original notes were taken was only half-fledged, and I was rather curious as to the approximate age at which these temporary appendages would be cast from the young bird.

Mr. Austin Roberts brought me in a living example of *Indicator maior* (Yellow-throated Honey-Guide) some 5 or 6 months ago, which he had taken out of the nest of the Cape Sparrow (*Passer melanurus*). This bird was fully fledged and ready to fly, and had both the hooks still attached to the beak. It was placed in a cage, where its foster-parents fed it from without.

A few days after being caged the bird lost one of the hooks (the lower one), whereupon we decided to kill and skin it, in order to preserve the specimen with the remaining hook attached.

There is nothing new to be added to my previous notes so far as the physiological characters are concerned, but I was very pleased to obtain this example as further evidence, because it proved (1) that the first specimen was not a "sport," accident, or chance-occurrence; (2) that the characteristic *is* applicable to at least the genus *Indicator*, since the first case was that of *Indicator variegatus*, while the present one is that of another species—*Indicator maior*! It would further seem that my surmise in the first paper, that these hooks fall off upon maturity, was correct.

X.—*The Black-tailed Godwit* (*Limosa limosa*, Linn.) in Natal. By E. C. CHUBB, Curator of the Durban Museum.

AN example of this species was obtained in Durban Bay, in the early part of February last, by Mr. Harold M. Millar, who presented it to the Durban Museum. When seen, Mr. Millar tells me, it was alone on the mud at the edge of the Bay, feeding in a similar manner to a Curlew, and thrusting its bill down the hole of a craker-shrimp. It whistled in a short chirping manner.

This species is found in Central and Northern Europe and Siberia during the Northern summer, and spends the Northern winter in the Mediterranean region and North-east Africa, but has not hitherto been recorded south of Abyssinia, as far as I am aware; so that its appearance here, in Natal, is not a little remarkable.

The present example agrees very well with the description of the bird in winter-plumage given in the British Museum Catalogue, and, from its reddish bill, one would judge it to be a female. It measures: total length 17 inches, culmen 4, wing 8·6, tail 2·7, tarsus 3·2.

The only other Godwit which visits Africa is the Bar-tailed Godwit (*Limosa lapponica*, Linn.), whose southern limits on this continent are the Gambia on the west and Somaliland on the east. It also occurs in Madagascar.

XI.—*Bird Notes from East London, Cape Province.*

Part I. By JOHN WOOD.

I PRESENT herewith a few notes jotted down as, for the most part, week-end observations throughout many years of residence at East London.

I have taken the species as they come in the first ninety pages of volume iv. of Stark and Selater's 'Birds of S. Africa,' but am afraid readers of our Ornithological Journal will find little that is original in what follows.

CORMORANTS.

I cannot say that the Trek-Duiker (*Phalacrocorax capensis*) is upon our coast in numbers every year, but, as a rule, it may be looked for during June to August in companies ranging up to, say, 300, and those sometimes enter our tidal rivers for a short distance. From the high banks one can generally then have the birds well under observation, and be sure to witness their strenuous work in feeding. Anglers say the fish come in mostly with the flowing tide, and that is why the Duikers choose, as they usually do, to appear in the rivers when the latter are full. This seeming preference may, however, be partly occasioned by less favourable conditions for diving in the surf-belt during high water. For nearly an hour I have watched over 100 of them feeding in the Nahoon River close to East London; they were very busy, and approximately one-third of their number were under the surface at a time. If one were to judge by the number of silvery flashes he saw, how many fish they caught, then I would say that the whole lot of them together did not average more than a capture per five minutes; but a good many of them swam for a little with a brownish object in their bills which they shifted about, and it may have been a crab that had to be erunched before swallowing.

When about to dive they raised themselves upon their webbed feet, then, arching their bodies, a vigorous kick sent them below for about a minute. I was in such a position that I could see that some went straight down into the deep water, but most shot along just under the surface; and occasionally one would bob up at least 50 yards beyond where it had disappeared. Oddly enough, these birds are very fond of bathing; many a time I have seen them splashing and flapping the water with their wings so as to get themselves well wetted, after which they go off to some stretch of sand or flat rock to preen and titivate.

The large White-breasted Cormorant, too, is fond of giving itself a special washing, and may often be seen in groups of six or eight during the summer months sitting on the beach-rocks with heads erect and half-stretched wings in suppli-

eating attitude, held out to dry, for quite a long time. They thus make themselves look a bit grotesque.

The Reed-Duiker (*Phalacrocorax africanus*) occurs here also, and may be seen either singly or in pairs pretty well all the year round, swimming about the Buffalo Harbour, and likewise upon our Town Reservoir, where it breeds amongst the rushes—a sanctuary it shares with the Grebe, the Water-hen, the Coot, and Wild Duck.

DARTER, or SNAKE-BIRD. (*Anhinga rufa*.)

This is a resident species, though I do not think there are more than a couple of pairs to about 20 miles of our coast here, notwithstanding there is a river entering the sea every second or third mile, those (about half of them) which are “blind” at the mouth being the ones the Darter seems to prefer. They are very shy birds, and have never let me reach a favourable position for watching them intimately. Now and again I have noticed one making a flight high overhead, holding its long neck stiffly out as if determined to get on; and once I saw one upon approaching the Gonubie River at a considerable elevation, start circling a good many times, going away and coming back, and circling again to a wearisome extent before finally settling. Whilst doing all that, it two or three times gave utterance to a whistling shriek, and though I heard no answering one, the bird was doubtless trying to locate its mate.

MALAGASH. (*Sula capensis*.)

This is a common bird along our coast, one of its breeding-resorts—Bird Island, off Port Elizabeth—being near at hand; and when it is most in evidence during the winter months its fine feats as a diver attract attention almost every day. In May or June, when the shoals of mackerel pass eastwards, the Malagash follow up in large numbers, and then one may sometimes witness a sort of avian waterfall; those in the front ranks for ever precipitating themselves upon the fish, while the others are either by the hundreds pushing forwards for position, or have just left the sea to mount onwards and again make the headlong plunge upon coming abreast of the

fish. It is an exciting time, and when the pilchards come along in January there is another just like it. These interesting feeding operations are usually conducted about a mile or two from the shore, and the birds are seldom within close observation, though I have at odd times seen individual ones passing up and down the tidal portion of the Buffalo River ; and mention may be made of my having on 12th January, 1899, purchased from a native a young Malagash, or Gannet, which he had captured at Gonubie River mouth some nine miles to the eastwards. Its plumage was brownish black, but a good bit lighter on the underparts, and the whole was profusely marked with small white arrow-heads formed by the tip of each heart-shaped feather being margined with that colour.

PINK-BACKED PELICAN. (*Pelecanus roseus*.)

Some years ago—9th January, 1904—I inspected a live specimen of this species, on its way to the Kingwilliamstown Museum, which had been shot at and wounded about a dozen miles on this side of the Kei River mouth. It was come upon stalking along the sands, and I have not seen nor heard of another one since. I have no doubt interesting bird-visitors look in on us at odd times, but it is only by the merest chance one hears of them.

WHITE STORK. (*Ciconia ciconia*.)

The nearest to the coast that I have noticed the Great Locust Bird was at Berlin Station some 30 miles inland, and that was within a few days of the end of May of this year. It lingered about there for three weeks, and then, presumably, fell in with others that, like itself, had not reacted to the usual migratory promptings. I have since heard that about 80 of them were seen at Debe Nek, between Kingwilliamstown and Alice, early in June last, and a few in the Komghla Division also at that time. On 4th November, 1905, I came upon a single specimen of the White Stork in the Kubusie River valley near Stutterheim ; but if a proportion of them are liable to winter with us those arrival dates which have been called for must be carefully scanned.

BLACK STORK. (*Ciconia nigra*.)

To observe this species one must go to our river-mouths when the tide is ebbing, and then he may chance to see a single bird or, now and again, two standing or wading about in the shallows as the water receded from the mud-banks. It is rather a fine-looking Stork, with its shining upper plumage of black, white belly, and bright red bill and legs; but I have always had to be content with making my observations through a field-glass, because its great wariness generally keeps it beyond the reach of everything save a rifle.

I would not say positively that the Black Stork pairs in this part of Africa, for though they are represented here all the year round, yet I have never seen the slightest sign of any two consorting as mates. As I remarked above, occasionally two may be observed upon the same feeding-ground, but they will not show interest in each other's presence. Two were reported from the Kieskhama River mouth last June, and I have them recorded locally as at Christmas, Easter, Whitsuntide, and at Michaelmas.

MARABOU STORK. (*Leptoptilos crumenifer*.)

I have never seen it here, but from a description given me by a competent witness I believe it was near the Kei River mouth a few summers ago; and my informant mentioned certain of the Kaffirs told him that their witch-doctor would pay a few pounds for it to be used as medicine if he shot it for them to hand over.

WOOD IBIS. (*Tantalus ibis*.)

I cannot doubt the accounts given me of this bird being seen every second or third year passing the East London district, but I have always missed coming across it.

HAMMERKOP. (*Scopus umbretta*.)

A fairly common bird, and though the coast-belt does not lend itself to the formation of persistent pans and vleys, yet there are many rivers, such as the Buffalo, Nahoon, Gonubie, Kwelegha, Chalumna, &c., with always more or less of a flow, in which are many pools overshadowed by krantzes

where these dingy, weird birds may often be disturbed. But they frequently make visits to the tidal parts as well, where they seem to feed upon small crustaceans to be caught on the mud-flats as the tide runs out. Sometimes I see one bent upon an excursion, for they can mount to a good altitude, and pass away with heron-like progression. They are very solitary birds, and even in the nesting-months are seldom seen other than singly. What purpose that shrill, nasal whistle of theirs serves I do not know, but it comes with startling effect at times from the bottom of some deep, dark kloof. The natives call it "Tekwane," and say it spends most of the day admiring its reflection in the water, which notion they apply to the individual who is conceited of his personal looks—he is no better than a Tekwane, they say.

GOLIATH HERON. (*Ardea goliath.*)

I have only seen this striking bird once during 15 years' observation in this part of the country. It was a single specimen near the mouth of the Nahoon River on 7th October, 1901. It was wading up to the belly in a bit of backwater when I suddenly came upon it, and though apparently at my merey yet it did not seem to think so, but made quite a dignified retreat. Its bayonet-like beak was held at the charge, and I did not feel called upon to test the bird's courage at the expense of my own perhaps.

GREY HERON. (*Ardea cinerea.*)

This is about the commonest of the large birds here, and occurs upon all our rivers, especially at the tidal parts, where the chance of food seems improved by the water alternately covering and receding from muddy margins. Some days, when boating, I have seen a Grey Heron almost every 100 yards wading or standing deep in the water, apparently unheeding of my movements as I rowed along; then a little later these birds might be noticed perched on the topmost points of the Melkbosch growing upon the banks, where they waited patiently till the waterside was shallow enough again for them to resume fishing. When rains have been plentiful,

and the various pans and vleys about the veld have had water in them sufficiently long (only a very few days seem necessary) to become stocked with frogs, then the Herons withdraw from the river-estuaries and resort to those collections of fresh water to play the part of "paddavangers." Occasionally I have observed the Grey Heron standing intently over some rock-pool on the beach.

I only know of two heronries in the district, one being on the Nahoon, four miles from town, where three years ago I counted eight pairs, though last season I did not see more than two pairs. This species being social at nesting-time, there are not likely to be many such spots.

They seem to like a change of feeding-ground, and from time to time—especially during the winter months—are to be observed in calm weather with steady, well-drilled like wing-strokes, flying high above the town in small companies—up to seven or eight—towards the westward rivers as a rule. Just lately I was interested to watch one which was going at a good elevation over the Buffalo River suddenly change its mind, pull up, and, with feet hanging down, descend in fine sweeping circles upon that river.

BLACK-HEADED HERON. (*Ardea melanocephala.*)

This species is also sure to be seen in the course of a day's travelling across our river-valleys; but it is always alone, and for every one of the Black-headed we appear to have half a dozen, or more, of the previously mentioned bird.

A young one shot at the Cefani River mouth—towards the Kei—on 27th October, 1907, was brought to me for identification.

PURPLE HERON. (*Ardea purpurea.*)

I have only once seen this bird locally, and that was during July 1906, when a female, also shot at the Cefani River mouth, was sent to me.

GREAT WHITE EGRET. (*Herodias alba.*)

I saw a pair at Waterford on the Kubusie River about the middle of November 1905; in fact there were three, but one

persisted in associating with a Grey Heron rather than with its own kin, which might be taken as indicating that the other two were mating. A farmer there told me that for some years he had seen a pair of these birds in that neighbourhood, but though they kept pretty much to the same stretch of river yet he had never been able to make out whether they were breeding.

I have also seen them during Christmas weeks at the mouths of the Keskama and other rivers, and on 20th August, 1910, a couple of birds were described to me as having stayed in the vicinity of the "ebb and flow" of the Buffalo River throughout the first half of that month, which I could not regard as answering to anything else than *Herodias alba*. The details given included an item decidedly pointing to there having been a shining metal ring upon the leg of one of these birds. If any European ornithologist has been bestowing such attention upon this species, he would be interested to hear of this observation, though, of course, there is nothing decisive about it. South African bird-lovers do not live in the open: most of them are cooped up in offices, and seldom can follow up a bit of news like this when it comes to their ears.

But since some of our White Stork visitors have been reported by competent ornithologists this year as having remained on into June with us, the significance of only an observation or two as to the occurrence of a species at any time in South Africa must be carefully interpreted.

YELLOW-BILLED EGRET. (*Herodias brachyrhyncha*.)

LITTLE EGRET. (*Herodias garzetta*.)

I have watched both of these species feeding upon the mud-flats of our rivers during the summer months.

In November 1908 I noticed a score or more of the first-mentioned walking about the veld with about the same number of White Storks near the town of Alice. They were all going in company, and I have been wondering why that particular bit of veld attracts the Stork, because in the

course of a good many years I have often seen them collected upon it.

The Little Egret is in my records as occurring here on 9th October.

CATTLE EGRET. (*Bubulcus ibis.*)

It is also seen hereabouts, but not often in the districts fronting the coast, which is strange considering that nowhere are the ticks so abundant. One might ask, indeed, why has not the terribly tick-infested coast cattle which has obtained for so long induced these and certain other birds with the "Oxpecker" habit to make a permanent home in our midst?

SQUACCO HERON. (*Ardeola ralloides.*)

I have never seen it in the flesh, but know of a stuffed specimen in East London which was undoubtedly shot near this place some years ago. It must be regarded as seldom in evidence down this way.

NIGHT HERON. (*Nycticorax nycticorax.*)

I have twice been shown specimens of this bird by our local taxidermist, to whom they had been sent by neighbouring farmers to be mounted as rare birds. One of them was said to have been flushed from some thick grass close to a spring out on the veld, where it apparently passed the day.

BITTERN.

At one time or other during the summer months of the last 15 years I have had specimens in my hands of the Red-necked Bittern, the Dwarf Bittern, and the Cape Bittern; all procured between here and the Kei River mouth by a friend who had a farm on the coast out that way, and having acquired ornithological tastes whilst a gamekeeper in Scotland in his young days he had an eye for anything out of the common, and often furnished me with interesting items for record in those days upon the margins of Sharpe's edition of Layard's 'Birds of South Africa.' A poor man with a little enthusiasm might scrape together so much as to acquire a copy of that work, but the price of the four volumes by

Stark and Selater is unattainable by the great majority of those I know scattered up and down South Africa who are disposed to interest themselves in making observations upon its birds.

XII.—Migration Report 1909-1911.

WE are sorry to say this Report is no better than its predecessors—perhaps even more meagre. It seems hopeless to expect any real enthusiasm (except amongst a certain section of our own Members) until the youth of the country have been educated up to a love of Nature study. To those of our Members who *have* assisted with their observations we tender our heartiest thanks. We have inserted a few dates of back years, which were not available before.

White Stork (*Ciconia ciconia*).

LOCALITY.	OBSERVER.	ARRIVAL.	DEPART.	WIND.	REMARKS.
Wepener, O.F.S.	E. H. M. Hardiman.	23. 8. 10.	—	N.N.E.	Only one.
Lindley, O.F.S.	P. E. Hale.	26. 10. 10.	—	Variable.	In poor condition.
Maseru, Bas.	J. P. Murray.	30. 11. 09.	—	Stormy.	About 50 seen.
Bankop, Ermelo.	C. H. Taylor.	10. 11. 10.	—	—	10 birds.
Sabi, Tvl.	Major Hamilton.	—	7. 4. 11.		
Pirie, Cape.	Miss Carry Ross.	25. 10. 08.			
Do.	Rev. Rob. Godfrey.	—	15. 3. 08.		
Do.	Do.	25. 11. 09.			
Do.	Do.	12. 11. 10.	20. 4. 11.		

A peculiar feature in this year's migration of the White Stork was the fact of its wintering over in large numbers. From all parts come reports. Rev. Robert Godfrey reports it from Pirie on 11th June and 24th July; Sgt. Davies, of the Cape Mounted Rifles, says a few remained at Matatiele all the winter; while Inspector Hale, of the O.F.S. Police, states that he saw a few near Bloemfontein in July. I saw four in the vicinity of the Zoological Gardens on June 4th,

and several weeks later heard of a small flock of twenty just outside of Pretoria.

Black Stork (*Ciconia nigra*).

LOCALITY.	OBSERVER.	ARRIVAL.	DEPART.	WIND.	REMARKS.
Bankop, Ermelo.	C. H. Taylor.	2. 12. 10.	—	—	One only.
Pirie, Cape.	R. Godfrey.	1. 10. 09.			
Do.	Do.	29. 9. 10.	24. 6. 10.		

Black-winged Pratincole (*Glareola pratincola*).

Bankop, Ermelo.	C. H. Taylor.	18. 11. 10.	5. 4. 11.	N. (a).	Flocks.
Lindley, O.F.S.	R. Chambers.	14. 12. 10.	—	—	„
Wepener, O.F.S.	E. H. M. Hardi- man.	28. 8. 10.	—	N.N.E.	„
Matatiele, Cape.	C. G. Davies.	11. 1. 11.	—	S.W.	

Greenshank (*Totanus glottis*).

Bankop, Ermelo.	C. H. Taylor.	1. 12. 10.			
Matatiele, Cape.	C. G. Davies.	18. 8. 10.			

Egyptian Kite (*Milvus aegyptius*).

Beira, P.E.A.	P. A. Sheppard.	25. 8. 08.	10. 3. 09.		
Do.	Do.	5. 9. 09.			
Bankop, Ermelo.	C. H. Taylor.	22. 11. 10.	14. 2. 09.		
Pirie, Cape.	R. Godfrey.	25. 10. 08.	20. 2. 10.		
Do.	Do.	30. 9. 09.			
Do.	Do.	23. 9. 10.			

Eastern Red-legged Kestrel (*Cerchneis amurensis*).

Matatiele, Cape.	C. G. Davies.	11. 1. 11.	—	—	Small flock.
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Lesser Kestrel (*Cerchneis naumanni*).

Ermelo, Tvl.	C. H. Taylor.	17. 11. 10.			
Wepener, O.F.S.	E. H. M. Hardi- man.	25. 9. 10.	—	—	Few only.
Maseru, Bas.	J. P. Murray.	7. 11. 10.	—	—	12 birds.
Do.	Do.	28. 11. 09.	—	SW, strong.	Hundreds.
Matatiele, Cape.	C. G. Davies.	12. 12. 10.	—	S.W.	Small flock.

European Roller (*Coracias garrulus*).

LOCALITY.	OBSERVER.	ARRIVAL.	DEPART.	WIND.	REMARKS.
Sabi, Tvl.	J. S. Hamilton.	—	6. 4. 11.		
Matatiele, Cape.	C. G. Davies.	21. 1. 11.	—	N.	One only.
Kingwilliamstown.	A. Weir.	—	19. 3. 11.		
Pirie, Cape.	W. J. A. Moir.	22. 12. 10.			

European Bee-eater (*Merops apiaster*).

Wepener, O.F.S.	E. H. M. Hardi- man.	25. 9. 10.	—	N.N.E.	In numbers.
Pretoria (Zoo).	A. K. Haagner.	19. 9. 10.	27. 4. 11.		

European Swallow (*Hirundo rustica*).

Beira, P.E.A.	P. A. Sheppard.	24. 10. 08.	30. 4. 09.		
Zoutpansberg.	R. Godfrey.	—	27. 4. 11.		
Bankop, Ermelo.	C. H. Taylor.	4. 11. 10.	—	—	Few only.
Wepener, O.F.S.	E. Hardiman.	29. 9. 10.			
Buffalo Basin.	R. Godfrey.	18. 12. 09.	28. 3. 09.		
Do.	Do.	10. 11. 10.	13. 4. 10.		
Do.	Do.	—	11. 4. 11.		

Red-backed Shrike (*Lanius collurio*).

Pietersburg.	R. Godfrey.	—	20. 4. 11.		
Pirie, Cape.	Do.	21. 11. 08.	15. 3. 11.		

Golden Oriole (*Oriolus galbula*).

Selukwe, Rhodesia.	J. L. Heward.	28. 8. 10.	—	N.W.	
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Willow Wren (*Phylloscopus trochilus*).

Pirie, Cape.	R. Godfrey.	—	24. 3. 09.		
Do.	Do.	—	24. 3. 10.		
Do.	Do.	—	29. 3. 11.		

AFRICAN MIGRANTS.

White-throated Swallow (*Hirundo albigularis*).

Selukwe, Rhodesia.	J. L. Heward.	29. 8. 10.	—	N.W.	
Lindley, O.F.S.	R. Chambers.	7. 11. 10.	—	N.W.	Flock.
Matatiele, Cape.	C. G. Davies.	11. 9. 10.			
Pirie, Cape.	R. Godfrey.	28. 8. 10.	28. 3. 09.		
East London.	Do.	15. 9. 09.			

Larger Stripe-breasted Swallow (*Hirundo cucullata*).

LOCALITY.	OBSERVER.	ARRIVAL.	DEPART.	WIND.	REMARKS.
Zoutpansberg.	R. Godfrey.	—	10. 5. 11.		
Kingwilliamstown.	Do.	22. 9. 10.			
Pirie, near Do.	Do.	25. 9. 08.	28. 4. 09.		
Do.	Miss F. Ross.	21. 9. 09.	2. 5. 10.		

Smaller Stripe-breasted Swallow (*Hirundo puella*).

Beira, P.E.A.	P. A. Sheppard.	18. 9. 09.	24. 7. 09.		
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A. K. HAAGNER,

Hon. Sec. S.A.O.U.

MEMO.—*White Stork*. Two more Hungarian Ringed Storks have been notified to us:—

3873. From Mumbwa, Chebebe Distr., N.W. Rhodesia, by Mr. E. J. Trenoweth, on 17. 6. 11.

2537. From Lemon Kop, Melsetter Distr., Southern Rhodesia, by Mr. J. Ward, on 28. 12. 10.

XIII.—*Obituary*. A. D. MILLAR and Capt. SHELLEY.

1. ALFRED DUCHESNE MILLAR.

(Plate.)

IN our last number we announced the death of our esteemed and lamented colleague, Mr. A. D. MILLAR, of Durban, Natal, which occurred on the 10th May, after a short illness consequent upon blood poisoning.

A. D. Millar was the son of the Hon. J. Millar, sometime Member of the old Legislative Council of Natal, and was born in Durban in 1858, being thus 53 years of age at his death. He was a respected member of the Legal profession and a Vice-President of the Natal Law Society. Millar devoted nearly all his leisure to the study of Natural History, and his name is familiar to every student of South African Ornithology. Although he did not write



ALFRED DUCHESNE MILLAR.

Born 1858 — Died 1911.

much himself, he assisted W. L. Selater very materially in the preparation of his 'Birds of South Africa,' and Millar's notes can be found quoted on many a page. In the same way he notified his valuable breeding experiments with butterflies to Professor Poulton.

He joined the Museum Committee of Durban in 1895, and was one of the most enthusiastic and indefatigable workers, being afterwards Secretary of the Museum, and consequent upon the illness of the then Curator took upon himself the supervision of the removal of the collections to the new Municipal Buildings.

Mr. Millar was a Corresponding Member of the London Zoological Society, a Member of the Entomological Society of London, "Colonial" Member of the British Ornithologists' Union, Vice-President of the S.A. Ornithologists' Union, President of the Natal Field Naturalists' Society and Natal Scientific Society. Besides being an ardent naturalist, Millar was a keen sportsman.

He left a fine collection of Birds' eggs, which has so far not been disposed of.

We may add that Mr. Millar was a nephew of "Uncle" Tom Ayres, of Potchefstroom, the famous old field ornithologist, whose notes—even to-day—constitute our only records upon certain species, and who is still living, albeit old and feeble.

To the widow, daughter, and two sons of our lamented friend we tender our sincere sympathy.—A. K. H.

2. Captain GEORGE ERNEST SHELLEY, F.Z.S.

The death of this well-known authority on African birds occurred on the 29th November, 1910, after a long illness. He was a son of the late Mr. John Shelley, of Avington, Hants, the younger brother of the famous poet. Captain Shelley was born in 1840.

He joined the Grenadier Guards in 1863, but owing to his tastes for science retired after a few years with the rank of Captain. He was shortly afterwards sent to South Africa on a Geological Survey.

In 1872 Shelley published his 'Handbook to the Birds of Egypt,' and in 1880 his handsome 'Monograph of the Nectariniidæ, or Family of Sun-birds,' illustrated by coloured plates by Keulemans. In this work he had the assistance of Dr. Bowdler Sharpe and the collection of Sun-birds of the Marquis of Tweeddale.

Captain Shelley was a good shot, and was truly happy when out collecting specimens.

In 1896 Shelley published the first volume of his 'Birds of Africa,' the first part of vol. v. appearing ten years later. This was the last work from his pen, as shortly after its completion a sudden stroke of paralysis brought his labours to a close.

Captain Shelley possessed great natural abilities and a wonderful memory, which, with a painstaking habit and literary excellence, made him resemble his famous uncle.

He married in 1889 Janet, daughter of Mr. E. Andrewes, and had two sons and a daughter.

Capt. Shelley contributed many papers to 'The Ibis' from 1870 to 1901, and to the 'Proceedings of the Zoological Society' from 1879 to 1889.

Of course Shelley's name is indelibly stamped on South African Ornithology, by the birds which bear his name, either in the specific name or the "authority." It is much to be regretted that he did not survive long enough to complete his enormous work on the birds of Africa mentioned above. [From 'The Ibis,' April 1911.]

XIV.—*Short Notices of Ornithological Publications.*

5. *The Journal of the East Africa and Uganda Natural History Society*, vol. i. no. 2.

The second number of this new Journal gives us a continuation of Mr. F. J. Jackson's articles on the Game-birds of East Africa and Uganda (*vide* Journ. S.A.O.U. vii. p. 54). In the present paper the author deals with the Quails. Guinea-

fowls, and Sandgrouse, of which seven of the species are found in South Africa. We have also a paper by R. van Someren on the Water Dikkop (*Ædicnemus vermiculatus*), here called the Central African Stone Curlew, illustrated by three photographic reproductions.

Mr. A. B. Percival gives us a short account of European migrants in British East Africa.

6. *Jaarboekje der Nederlandsche Ornithol. Vereeniging.*
No. 7 (1910).

Amongst articles of purely local interest, attention may be drawn to one entitled "Enkele biologische Opmerkingen over den Draaihals (*Iynx torquilla*, L.)," by J. H. F. de Meijere.

7. *Photography for Bird Lovers: a practical Guide.* By Bentley Beetham, F.Z.S. London: Witherby & Co., 326 High Holborn, W.C. (1911.) Price 5s. (five shillings) net.

This is a practical and well-planned little guide to what is becoming more in vogue every day—namely, the application of the camera to the study of ornithology. The author deals in turn with the apparatus necessary, nest photography, photographing young birds, and the various methods of photographing adult birds, *i. e.*, the "stalking," "concealment," &c. He gives clear instructions on exposure and other important details, and we strongly recommend the book, not only to bird photographers and would-be photographers, but to all lovers of field ornithology.

The writer knows from experience the difficulties and trials attendant upon bird photography, as he also knows the pleasure and excitement of the "sport." The book is illustrated by 16 full-page photographic plates.—A. K. H.

8. *Studies of Bird-Life in Uganda.* By R. A. L. van Someren, M.D., and V. G. L. van Semeren.

This is in reality a "picture book" or photographic album

of 25 enlarged photogravures of wild birds taken in Uganda, accompanied by a brief descriptive letterpress. The book is published by Bale Sons & Danielsson, at 31s. 6d. net.

9. *Agricultural Magazine*. January to August 1911.

In these numbers there appears little of special interest to South African ornithologists beyond a paper on the Bromvogel (*Bucoreus caffræ*) by Mr. W. L. Selater, illustrated by a photographic plate. A series of articles entitled "Hints on Practical Bird-keeping" are of considerable interest and value to bird-keepers.

10. *The Ibis, a Quarterly Journal of Ornithology*.

The April 1911 issue of the ever-green 'Ibis' contains Part I. of a valuable paper by Mr. W. L. Selater on the birds collected by Mr. Claude H. B. Grant during a four-and-three-quarter-years' collecting in various parts of South Africa. The cost of this much-needed zoological exploration was entirely borne by Mr. C. D. Rudd, a well-known Capetonian, and it is extremely to be regretted that this gentleman, who made his home in South Africa for many years, should not have arranged that at least half of the material collected should have remained in the country. The collections totalled—besides mammal skins—3527 birds, representing 591 species, about two-thirds of the known number of species inhabiting South Africa. They were collected in six localities, viz. Little Namaqualand, Cape Town district, Knysna district, Natal and Zululand, Transvaal, and Portuguese East Africa. Eight new species were obtained, of which six have already been described in the 'Bulletin B. O. Club,' and noticed in these pages. Two additional subspecies are now described in this paper: *Pratincola torquata orientalis* and *Cossypha caffra namaquensis*. The classification and nomenclature follow almost exactly the author's "Check-list of the Birds of South Africa," published in 1905 as a number of the 'Annals of the Transvaal Museum.'

Coming to the paper itself, we notice that the Black-backed Weaver is called *Sycobrotus gregalis*, whose correct name is clearly pointed out by Dr. Hartert to be *bicolor* (*vide* Nov. Zool. 1907, p. 501). On p. 235 Mr. Selater says *Quelea erythrops* is new to South Africa; but Mr. C. G. Davies procured it in Pondoland some two or three years ago. Mr. Selater comes to the same opinion regarding *Alario leucoloma* as we have in our 'Check-list.' Hartert's *Mirafra africana transvaalensis* is substantiated; while a new addition to South Africa is included—*Mirafra rufocinnamomea*, Shelley (from Klein Letaba, Tvl.).

Coloured plates are given of *Cinnyris neergaardi* ♂ & ♀, also of *Apalis claudeni* and *A. ruddi*. Specimens of the recently described *Anthreptes reichenowi*, *Cisticola cinnamomeiceps*, and *Heliolais kirbyi* were obtained.

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Dr. J. W. B. GUNNING,
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