BIRDS OF THE SOUTH AFRICAN SUBCONTINENT

Notes on Birds of the South African Subcontinent,

By

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With Plates I and II.

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INTRODUCTION.

THE following ten notes are the first of a series dealing mainly with the taxonomy of the birds of the South African subcontinent—that part of Africa which lies south of the Cunene–Okavango–Zambesi rivers. While much was accomplished during the lifetime of that indefatigable ornithologist, Dr. Austin Roberts, a considerable field still awaits critical investigation, particularly as to the status and distribution of many named subspecies of South African birds. It is the author's belief that the present series of notes will be of use to all workers interested in African ornithology.

1. THE OCCURRENCE OF THE GREAT SPOTTED EAGLE, Aquila clanga Pallas, in Natal. Pl. I.

While working through the eagle skins in the study series of the Natal Museum I came across a specimen originally in the Graham Hutchinson Collection labelled as *Aquila imperialis* (Bechstein), a species not mentioned by Roberts in his 'Birds of South Africa,' 1940. I have critically examined the specimen and find that it is not an example of *Aquila heliaca* Savigny

(=A. imperialis), but is a subadult Great Spotted Eagle, Aquila clanga Pallas, 1827, Russia and Siberia, a species never hitherto recorded from the South African subcontinent.

The specimen in question—sexed as a male (I believe wrongly)—was taken at Himeville in Natal during December, 1888. It is somewhat faded as a result of exposure to strong sunlight, and is in slightly abraded dress. The critical measurements of the specimen are as follows:

Wing (fla	attened	l) .			•	•	•		573 n	ım.
Culmen :	from c	ere	•	•			•		35.5	,,
Height o	of max	illa		•		•		•	18	,,
Tarsus									98	,,
Tail .	•				•	•			283	,,

These measurements are in excess of those given by that great authority, Dr. Ernst Hartert, in his monumental work on Palæarctic birds, 'Die Vögel der paläarktischen Fauna,' vol. ii, 1914, p. 1103, namely, wing-length of 20 33 50-52, seldom 53, wing-length of 16 $\varphi\varphi$ 52·5-55, very seldom 56 cm. Tail 24-27, tarsus 9·5-10·5 cm., culmen 32·5-39 mm. Witherby, 'Handbook of British Birds,' vol. iii, 1939, pp. 45, 46, gives closely similar measurements to those recorded by Hartert, *loc. cit.*

Apart from its larger size the present specimen agrees in all essential diagnostic criteria with *A. clanga*, and I do not hesitate in assigning it to that species. Judging by Witherby's descriptions of the plumage sequence (*loc. cit.*), the bird would appear to be in its "second summer." The body plumage is completely without spotting, which is restricted to some of the wing-coverts and secondaries, while the upper tail-coverts are whitish and the tail feathers are broadly tipped with pale buffy white. It may be that the eastern populations range somewhat larger in structure than those from the western parts of the bird's distribution. If this be so it would account for the larger dimensions of the Natal specimen here discussed.

Sclater, 'Systema Avium Æthiopicarum,' 1924, p. 60, lists A. clanga from the Ethiopian region, stating that it has been recorded from Egypt and perhaps Eritrea and eastern Africa.

The breeding range of A. clanga is from the eastern parts of Europe (Finland, Baltic States, Poland, Balkans, etc.), eastwards through Russia, ? Asia Minor, Persia, Turkistan, N.W. India, etc., to Siberia and Amurland. In winter south to N.E. Africa, Iraq, and India.

The closely allied Lesser Spotted Eagle, Aquila pomarina Brehm, which differs from A. clanga in its generally smaller size, somewhat paler coloration and different wing-formula, has already been recorded from the South African subcontinent by R. D. Bradfield, who obtained three specimens to the north of Okahandja, South-West Africa, and so recorded by Roberts, 'Birds of South Africa,' 1940, p. 53.

The Spotted Eagles can always be separated from the other species of the genus *Aquila* Brisson by the more rounded shape of the nostrils and by the proportionately weaker bill and feet.

2. THE MOUNTAIN BUZZARD, Buteo oreophilus HARTERT AND NEUMANN, IN NATAL.

Buteo oreophilus Hartert and Neumann, separated in 1914 with typelocality as Koritscha, near Abera, Djamdjam, in southern Abyssinia, is not listed as occurring in the South African subcontinent by Sclater, 'Systema Avium Æthiopicarum,' 1924, p. 66, who gives the distribution of this species as "Mountains of N.E. and C. Africa; Shoa, Kenya, Ruwenzori and Kilimanjaro." Chapin, 'Birds of the Belgian Congo,' part I, 1932, p. 610, gives a slightly larger range, and states (after Sclater, 'Ibis,' 1919, p. 255) that the species possibly ranges as far south as the Transvaal. Roberts, 'Birds of South Africa,' 1940, p. 61, lists the species from our area, and states that *B. oreophilus* has occurred at Knysna and Grahamstown in the Cape Province.

There are two specimens of *B. oreophilus* in the collection of the Natal Museum. The first, an unsexed adult, was obtained at Dargle, Natal, and was purchased for the collection of the Natal Society in 1893. It had been identified as an example of *Buteo buteo vulpinus* (Gloger) (=*B. desertorum* auctorum). The measurements of this bird are as follows : Wing 327, culmen from cere 21, exposed tarsus 35, tail 180 mm. The other specimen possesses only the locality of "Natal," and no other data. The measurements of this bird are as follows : Wing 342, culmen from cere 23, exposed tarsus 35.5, tail 180 mm. The wing-measurements of four adult examples of *B. b. vulpinus* in our collection are : 360, 365, 375, 385 mm. From the above information it can be deduced that *B. oreophilus* occurs in Natal in very small numbers.

Chapin, loc. cit., states that there may be good reason for regarding B. oreophilus as the resident race of the European B. buteo in equatorial Africa, a view with which I, as a worker on Palæarctic birds, heartily concur.

3. TAXONOMIC NOTES ON Clamator glandarius (LINNÆUS), WITH THE DESCRIPTION OF A NEW RACE FROM THE ETHIOPIAN ZOOGEOGRAPHICAL REGION. Pl. II.

All standard works on Palaearctic and Ethiopian birds treat the Great Spotted Cuckoo, *Clamator glandarius* (Linnæus), binomially. As a result of studies recently carried out in South Africa and at my request in the American Museum of Natural History, New York, it is considered necessary to draw the attention of workers to the distinctive characters of the two main groups of populations, namely, those breeding in the southern parts of the Palæarctic region from the Iberian Peninsula and N. Africa eastwards to Persia, which winter in tropical Africa, and those restricted at all times to the African continent.

Soon after my arrival in South Africa I had cause to examine the C. glandarius series in the collection of the Natal Museum, and I was immediately impressed by their small size and by the rather bright aspect of the buffy suffusions to the throat. On the matter being referred to Dr. James P. Chapin of the American Museum of Natural History, New York, it was most thoroughly gone into by Dr. Chapin's colleague, Mr. E. T. Gilliard, of the Division of Birds of that institution, with the happy result that my initial impressions were fully borne out by an examination of a comprehensive series of 101 cabinet skins.

Our combined studies confirm that the Palæarctic representatives can nearly always be separated from Ethiopian breeding birds by their larger dimensions and slightly duller throat coloration, and it is now deemed advisable to elevate the populations of Africa south of the Sahara as a new race to science. This work fully bears out what Dr. Austin Roberts has written, vide 'Birds of South Africa,' 1940, pp. 140, 141: ". . . but whether the birds that breed in the north are also those which breed in the south is a most point, and probably the explanation is that there are two races, both migratory, with a more limited distribution than the records appear to show, northern birds having longer wings than the southern." In any study of Ethiopian C. glandarius it should be appreciated that a percentage of the assembled material will almost certainly consist of wintering Palaearctic birds, while South African birds are believed to move north to the equator in the nonbreeding season. Gilliard reports : "The bulk of the central and all of the South African specimens in the American Museum belong to the southern race. An occasional Palæarctic migrant was found among the birds taken These were immediately recognizable because of their in Central Africa. more robust appearance and by their consistently larger size."

In dealing with African C. glandarius it is necessary to consider certain names :

(a) Cuculus Abyssinicus Latham, 'Ind. Orn. Suppl.,' p. xxxi, 1801, ex

'Gen. Syn. Suppl.,' II, p. 139, ex Bruce, 'Travels,' Abyssinia.

Queried by Hartert, 'Die Vögel der paläarktischen Fauna,' vol. ii, 1912, p. 955, and not definitely attributable to the species in question. I can find no record of C. glandarius breeding in Abyssinia, though it has been so recorded from Darfur in the Sudan and from British Somaliland. Further, the migratory status of the Palaearctic race makes the use of the name undesirable.

(b) Cuculus melissophonus Vieillot, 1817, Egypt, and Cuculus phaiopterus Bonaparte, 1850, Egypt.

? Based on migrants. Egyptian birds, like those from neighbouring Palestine and Syria, are of the Palæarctic race.

(c) Cuculus gracilis Brehm, 'Handb. Naturg. Vög. Deutschl.,' 1831, p. 154: Africa.

Too vague and unsatisfactory to warrant consideration.

None of these names can, in my view, be satisfactorily appended to the distinctive African race, which I shall describe below under a new name.

The characters and ranges of the two races it is proposed to recognize are as follows :

A. Clamator glandarius choragium, subsp. nov. Pl. II, A.

Type.—In the collection of the Natal Museum, Pietermaritzburg, Natal, South Africa. \bigcirc adult. Obtained near Hlobane, northern Natal, on August 8, 1950.

Diagnosis.—Similar to Clamator glandarius glandarius (Linnæus), 1758— Habitat in Africa septentrionali et Europa australi—but differs in having the throat and upper breast warmer buff and with less pronounced dark shafts to the feathers, and by its much smaller size, thus, 10 \Im wing 186–201, tail (8) 184–208, 15 \Im wing 185–201, tail (12) 182–198 mm., as against 11 \Im wing 207–217, tail (10) 210–225, 5 \Im wing 197–211, tail 200–205 mm. in the nominate race (combined measurements by E. T. Gilliard and P. A. Clancey).

Description of the type.—Lores, areas below eyes, ear-coverts and crown light grey, feathers with darker fringes and blackish shafts; mantle olive brown, scapulars broadly edged with white; rump greyer, feathers with pale terminal fringes; upper tail-coverts greyish broadly edged white on outer webs; throat, malar regions, sides of neck and upper breast warm stone buff; rest of under-parts dull white; wings olive brown, with slight green lustre, all upper wing-coverts with broad terminal spots of white; secondaries with white tips, mainly on outer webs; primaries with narrow white apices, and the first three with juvenal chestnut colouring; tail dark olive brown with pronounced greenish reflections, feathers broadly tipped with white except for median pair with white only 2 mm. broad; under wing-coverts stone buff, axillaries paler.

Measurements of the type.—Wing (flattened) 194, culmen from base at skull 30.5, tarsus 30, tail 198 mm.

Distribution.—Africa south of the Sahara, but absent from most of the heavily forested areas, and very thinly distributed in the more northern parts of its range. Chapin, 'Birds of the Belgian Congo,' part II, 1939, p. 184, states: '. . . the Congo, where the great spotted cuckoo is rare.'' Sclater, 'Systema Avium Æthiopicarum,' 1924, p. 181, simply states that it is known to breed in South Africa, possibly elsewhere as well. The bulk of the African breeding population would appear to be concentrated mainly in the southern and south-eastern parts of the African continent.

Remarks.—Parasitizes not only members of the Corvidæ but many species

of Sturnidæ as well, notably the Glossy Starlings (Lamprocolius), Red-winged Starling (Onychognathus morio), and Pied Starling (Spreo bicolor).

В. Clamator glandarius glandarius (Linnæus). Pl. II, в.

Cuculus glandarius Linnæus, Systema Naturæ, I, 1, 1758, p. 111 : North Africa and southern Europe—I here restrict the type-locality to Morocco, N.W. Africa.

Similar to C. g. choragium described above, but with the throat duller and the dark shafts to the feathers more pronounced. Markedly larger and more robust than the southern race—for comparative measurements and other data see under C. g. choragium.

Distribution.—Spain and Portugal, N. Africa, Egypt, Cyprus, Greece (seldom), Asia Minor, Syria, Palestine, east to Persia. Migrates south in winter to tropical Africa.

Remarks.—Parasitizes members of the Corvidæ only. Judging by the measurements given by Hartert and Roberts in their respective works, I can see no appreciable difference in the size of the eggs of the two races, but there may be a difference in the colour.

Hartert's measurements for this race, tom. cit., p. 956, in the main confirm my findings, but there must surely be a mistake in the tail-measurements given by this authority (210-248 mm.). None of the Palæarctic race measured during the course of this study has a tail of more than 225 mm.

Acknowledgments.—The satisfactory outcome of the investigation has only been made possible by the wholehearted co-operation of members of the staff of the Division of Birds, American Museum of Natural History, notably Mr. E. T. Gilliard, to whom I express my most profound thanks. I have also to thank Dr. G. Niethammer of the Museum Alexander Koenig, Bonn, Germany, for kindly sending out breeding Spanish specimens, which have been of the greatest possible use to me in my work.

4. ON THE RACE OF *Enanthe œnanthe* (LINNÆUS) PRESUMED TO OCCUR IN SOUTH AFRICA.

Roberts, 'Birds of South Africa,' 1940, p. 234, places the example of the Common Wheatear obtained many years ago by Boyd Alexander on the Zambesi as *Œnanthe œnanthe œnanthe* (Linnæus), 1758, Sweden, but Vincent, 'Ostrich,' xix, No. 3, 1948, p. 229, suggests that it was attributable to *Œnanthe œnanthe leucorhoa* (Gmelin), 1789, Senegal, on the basis that an example of this Nearctic race is reputed to have been obtained by Mr. C. W. Benson in Nyasaland, and that the bulk of the East African birds in the British Museum are referable to this subspecies.

During the northward migration in the spring of 1949 I obtained, in conjunction with Mr. J. G. Williams of the Coryndon Memorial Museum, Nairobi, a series of seventeen specimens of this species in various parts of Kenya Colony, and later in the same year Mr. Williams kindly obtained four additional examples on the return migration. When compared with topotypes of the nominate race these birds stand out at once on account of their paler and brighter coloration and average slightly larger size. On comparison with the Nearctic \mathcal{E} . α . leucorhoa they are paler and less richly pigmented, particularly in the fresh autumn plumage, and are of less robust proportions. They are in my view attributable to the central Asiatic race described by Professor Lönnberg as \mathcal{E} nanthe ananthe argentea, 1909, the type-locality of which is Bura, south of Lake Baikal. It is clear from this that the great majority of Common Wheatears wintering in East Africa are not of Nearctic origin, but most certainly come from the more eastern portions of the species' range. It would appear that some Asiatic (?) populations have dimensions closely approaching those of the Nearctic representatives.

Vaurie, 'American Museum Novitates,' No. 1425, 1949, pp. 10–15, reviews the extensive literature on the question of the validity of \mathcal{E} . α . argentea and the more questionable \mathcal{E} . α . rostrata (Hemprich and Ehrenberg), and places these races as synonyms of the nominate race.* After an examination of over five hundred specimens from all parts of the species' breeding range I am convinced that such an opinion is contrary to the facts and cannot be upheld, and I provisionally accept \mathcal{E} . α . argentea as a valid race. \mathcal{E} . α . rostrata, being based on migrants from Egypt, northern Arabia, and Syria, must always be open to doubt, and the longer bill criterion given for this race does not apparently crystallize geographically to a degree of constancy which would warrant the recognition of the subspecies on this character alone. Vaurie's remark that " the matter would appear to be settled " is but a vain hope, but the polemics of the issue need not interest us here. It will suffice to say that until a further example of this species is obtained within our limits and is critically compared with adequate series a binomial should be used in our list.

5. THE CHARACTERS OF A NEW RACE OF Anthus richardi Vieillot from THE LOW COUNTRY OF PORTUGUESE EAST AFRICA.

Roberts, in his 'Birds of South Africa,' 1940, pp. 291, 293, lists only two races of the pipit Anthus richardi Vieillot from the South African subcontinent, namely, Anthus richardi rufuloides Roberts and Anthus richardi bocagii Nicholson. Recently Vincent has introduced the name Anthus richardi transkeiensis Vincent, 1948: Transkei, Cape Province, South Africa, to replace the invalid names A. r. rufuloides and A. r. raaltenii formerly used for the South African populations. An examination of the small series of South African A. richardi in the collection of the Natal Museum reveals that other races must be admitted to the list, those from the Vumba, Southern Rhodesia, being particularly dark and agreeing with Anthus richardi lichenya Vincent, 1933,

^{*} Messrs. C. W. Mackworth-Praed and C. H. B. Grant, 'Ibis,' vol. 93, No. 2, 1951, pp. 234-236, in a cursory revision of the races, recognize an Asiatic race as the one wintering in East Africa, namely, \mathcal{E} . α . libanotica (Hemprich and Ehrenberg), 1828, Lebanon, and place \mathcal{E} . α . argentea as a synonym. I do not consider the arrangement satisfactory.

Nyasaland, while those from the low country of Portuguese East Africa taken at Zimbiti, near Beira, were found to approach the race described from high interior regions of Kenya Colony as *Anthus richardi lacuum* Meinertzhagen, 1920, Lake Naivasha, Kenya Colony, but differing sufficiently as to justify their separation under a new name.

Through the courtesy of the Directors of the South African Museum, Cape Town, the Transvaal Museum, Pretoria, and the resident Ornithologist, Mr. J. G. Williams, of the Coryndon Memorial Museum, Nairobi, I have been able to examine further material from many parts of South Africa, Abyssinia, the Sudan, Uganda, Kenya Colony, Tanganyika Territory and Mozambique. This additional material fully supports my findings on the birds of Portuguese East Africa, and also shows that the populations of Basutoland and the Karroo regions of Cape Province will possibly require to be designated as new races to science. The Basutoland birds, as exemplified by specimens from the Sanqubetu Valley of that territory, stand out at once when compared with the contiguous race A. r. transkeiensis by their decidedly darker upper-parts, more heavily spotted breasts and larger size (wings in males 95 mm, and over). Those from the Karroo and neighbouring dry areas are paler and more buffy than A. r. transkeiensis and range smaller in size. A single very grevish bird from near Livingstone on the Zambesi suggests that we must admit the pallid race described from parts of Northern Rhodesia as Anthus richardi lwenarum White, 1946, Balovale, to the South African list. It is hoped to see further material of freshly moulted and breeding birds before the final report on the South African races of this species is prepared. In the meantime, I consider it advisable to introduce a name to cover the distinctive populations of Portuguese East Africa.

Anthus richardi spurium, subsp. nov.

Type.—In the collection of the Natal Museum, Pietermaritzburg, Natal, South Africa. \mathcal{J} adult. Taken at nest. Collected at Zimbiti, near Beira, Portuguese East Africa, on July 24, 1909, by P. A. Sheppard.

Diagnosis.—Closely similar to A. r. lacuum of interior Kenya Colony but darker on upper-parts in series; under-parts whiter with little or no pinkishbuff suffusion, and with breast and flank striæ rather more fully developed; smaller in size, thus, \Im^{Q} wings 80, 81, 81, 84.5, 86, 89 mm., as against \Im^{Q} wings 89, 89, 90, 90, 90.5, 91, 92.5 mm. in A. r. lacuum. When compared with the neighbouring A. r. lichenya the new race differs palpably in lacking the reddish tones to its plumage, while in size A. r. lichenya is similar to A. r. lacuum— \Im^{Q} wings 89, 90.5, 91.5, 92.5 mm. From the more southern race A. r. transkeiensis it differs by its lighter coloration and smaller size. Six A. r. transkeiensis have \Im^{Q} wings 89, 90, 90, 91, 91.5, 93.5 mm.

Description of the type.-Superciliary stripe dull buffish white; crown,

nape, and mantle dull olive brown, feather centres darker and apices paler; rump greyish olive brown; upper tail-coverts similar to rump, but feathers edged whitish; ear-coverts dull whitish suffused with olive brown on the periphery; malar regions dull white; mesial streaks blackish brown; whole of underside dull white suffused with buff on breast and flanks, the feathers of which parts have brownish-black centres forming streak-like spots; wings olive brown with slight reddish suffusion, coverts broadly edged with dull white; first primary with outer web largely dull white; first primary longest, 2, 3, 4 emarginate; tail olive brown, outermost pair of tail feathers wholly white on outer webs and most of inner webs; second pair of tail feathers with the white outer web suffused brownish and the inner webs with white restricted to a narrow mark 37 mm. long contiguous with the rhachis. Plumage worn.

Measurements of the type.—Wing (flattened) 89, culmen from base at skull 18.5, tarsus 29, tail 63 mm.

Distribution.—The low regions of Portuguese East Africa from the area of the lower Zambesi northwards certainly to Lumbo. Replaced in the mountainous region to the west by A. r. lichenya. One specimen from Lamu, coastal Kenya Colony, seems to be nearest the new form, as also are two from the Dar-es-Salaam region of Tanganyika Territory.

6. OBSERVATIONS ON THE COLOUR VARIATIONS AND MOULTS OF Macronyx capensis colletti Schou.

Examination of any extensive series of the Orange-throated Longclaw, Macronyx capensis (Linnæus), taken at various times of the year reveals a bewildering range of colour variation. Roberts, in his 'Birds of South Africa,' 1940, p. 296, simply states that ''Individuals vary considerably in the extent and depth of yellow below,'' but Stark, 'Birds of South Africa,' vol. i, 1900, p. 238, suggests that it is more than just individual variation when he describes winter examples of both sexes as being darker and more distinctly mottled than in summer. Recently, while investigating suspected population differences within the race described from the eastern and northern parts of the species' range, namely, Macronyx capensis colletti Schou, 1908, Zululand, I critically examined a long series composed of material from the collections of the Transvaal and Natal Museums. As a result of this study it has been possible to correlate much of the very appreciable variation with natural seasonal plumage change through moult.

The most brilliantly coloured examples are those taken in the spring and summer months of October-January. At this season fully adult birds have the black fringed gorget a scintillating scarlet and the lower ventral surfaces strongly suffused orange, and the range of variation in the spring and summer

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series is not in any way abnormal. The brightest specimen in the series before me is a male in the collection of the Natal Museum collected at Bisley, near Pietermaritzburg, Natal, on November 26, 1950, while a male from Mamathes, Basutoland, collected by Guillarmod on November 23, 1932 (Transvaal Museum Collection), though generally a little less deeply coloured than the Bisley example, is worthy of comment on account of the intensity of tone of the scarlet gorget. The rest of the October–January material available to me is palpably uniform, but it should be remarked that some low-country birds from the Maputa district of N.E. Zululand are rather less orange and more yellowish below than those from higher altitudes.

This brilliance of coloration is acquired by a protracted body moult which commences in August and early September, and is at first restricted mainly to the ventral surfaces and some of the mantle feathers. Nearly all breeding M. c. colletti are in a state of body moult. Occasionally as early as September, but generally in December and January, the moult of the wing and tail feathers is commenced. This is at first confined to a replacement of one or two of the innermost tertials and secondary coverts and the innermost pair of rectrices. Birds taken in May and early June are almost invariably found to be in the final stages of the complete moult or in the full fresh autumn dress. Adult birds in fresh autumn plumage differ from those taken in the spring and summer by having the upper parts more brownish olive, not so greyish, and by having much of the rich ventral coloration somewhat dulled by the stone-buff apices to the abdominal and flank feathers. The difference in the tonal quality of the upper surfaces between worn and fresh autumn birds is comparable with the pronounced seasonal differences so well known in the closely allied Pipit genus Anthus. Wear and soiling as a result of contact with burnt grass tone down the intensity of the colours very considerably, and by August and early September the birds generally present a tarnished appearance.

The juvenile M. c. collecti commences to moult into first autumn dress early in life, and specimens taken in January have the body moult well advanced, but the wing and tail feathers, though excessively abraded, are not yet involved. Birds in first autumn plumage differ generally from freshly moulted adults by having the gorget paler and more yellowish and the black fringe less pronounced, and the lower ventral surfaces are yellow with little or no orange suffusion.

It should be appreciated that odd specimens tend to disrupt the over-all impression of orderly moult periods in this race, and at present I attribute this to variations in the times of the breeding season impinging from local vagaries of climate.

The differences between the sexes is not great, but females can generally be distinguished from males at all times of the year by their slightly duller gorgets, less pronounced black gorget fringe, less richly coloured ventral surfaces, and by their slightly smaller size. Roberts, *loc. cit.*, does not give separate measurements for the sexes. My wing measurements are as follows : Males 97-105, females 93-100.5 mm.

I can detect no differences in size in the specimens of various populations of M. c. colletti examined which would seem to be in any way associated with geographical distribution, but in this connection it seems worthy of comment that the largest example in the material before me is the one from Basutoland mentioned above. This specimen has a wing measurement of 105 mm. Priest, 'Birds of Southern Rhodesia,' vol. iii, p. 58, comments on a specimen from Inyanga Downs, N.E. Southern Rhodesia, with a tail measurement of 77 mm. – a measurement only equalled by one M. c. capensis available to me. Not one specimen of M. c. colletti examined has a tail in excess of 72 mm., the limit given by Roberts, loc. cit.

Of the western racial representative of the species, Macronyx capensis capensis (Linnæus), 1766, Cape of Good Hope, which is separable from M. c. colletti by its colder and more earthen brown upper-parts and more clouded breast, I have examined four specimens. In the main they support my findings based on M. c. colletti, as two from Malmesbury, Cape Province, taken on March 25, 1940 (Transvaal Museum Collection), are in the final stages of complete moult, while two others from Zætendalsvlei, Cape Province, October 23 and 24, 1940, in the same collection are in abraded plumage and only one has commenced to moult the body plumage.

I am indebted to Dr. V. FitzSimons of the Transvaal Museum for the loan of relevant material.

7. ON Lamprocolius nitens (LINNÆUS) FROM NATAL.

In the South African subcontinent two races of the Red-shouldered Glossy Starling, Lamprocolius nitens (Linnæus), are recognized, namely, Lamprocolius nitens phænicopterus (Swainson), 1838, S. Africa, ex Burchell, 'Trav.,' 1, p. 318, obtained on the Gariep or Orange River near Prieska, and Lamprocolius nitens bispecularis (Strickland), 1852, Damaraland. Sclater, 'Systema Avium Æthiopicarum,' 1930, p. 656, gives the range of L. n. phænicopterus as "Cape Province of South Africa, south of the Orange River; not in Little Namaqualand." Roberts, 'Birds of South Africa,' 1940, p. 313, states "Confined to the eastern Cape Province and extending eastwards to the Weenen district of Natal." For the range of L. n. bispecularis, Sclater, loc. cit., gives South-West Africa, including southern Mossamedes and Little Namaqualand, east through the Transvaal and Orange Free State to Natal, while Roberts, loc. cit., records it as "Coast of Natal and northwards to Transvaal, through Orange Free State to Zuurberg, northern Cape Province, Bechuanaland, Southern Rhodesia, Ngamiland, and South-West Africa to southern Angola."

I have measured the material preserved in the collection of the Natal Museum, and find that no specimens from Natal are strictly referable to the larger race to which the name L. n. phanicopterus is generally applied, and all are, in my opinion, of the smaller form, L. n. bispecularis. I have not been able to ascertain on what material Roberts made the assertion that L. n. phanicopterus ranges eastwards into Natal. One specimen in our collection from the Weenen district—an area mentioned specifically by Roberts—is a male with a wing-measurement of 134 mm., and can be nothing other than L. n. bispecularis. The wing-measurements of our Natal and Zululand skins are as follows :

Males.

Pietermaritzburg, Natal	. 137, 137, 138 mm.
Estcourt, Natal	140, 142 ,,
Weenen, Estcourt, Natal .	134 ,,
Umgeni R. Valley, 2000 ft., Natal	. 135, 138, 140, 140 ,,
Zululand	134.5, 137 ,,
Females.	
Pietermaritzburg, Natal	. 125, 129, 129 mm.
Umgeni R. Valley, 2000 ft., Natal	. 125, 128.5, 132 ,,
Zululand	127.5 "

Roberts, loc. cit., gives the wing-measurements of L. n. phœnicopterus as 33143-148, 99133-140, and L. n. bispecularis as 39121-138 mm. It may well be that some larger birds would be found in a really comprehensive material from Natal. Natal being on the extreme southern periphery of the range of L. n. bispecularis and contiguous to the regions inhabited by the larger race can be expected to have a somewhat less stable population.

The status of the names generally accorded the two southern races of L. nitens is extremely unsatisfactory. If, as Roberts avers, all northern Cape Province birds are referable to the smaller of the two subspecies, then L. n. phænicopterus with its type-locality at Prieska in the northern Cape and L. n. bispecularis (type-locality, Damaraland) are one and the same race. L. n. phænicopterus having priority would be the name applicable to all the populations of smaller sized birds and L. n. bispecularis would be a synonym. If an examination of specimens from the Prieska district supports such a contention it will be necessary to describe 'the distinctly larger birds from the eastern parts of Cape Province as a new race.

On faunistic grounds I find it hard to give credence to the belief that the L. *nitens* of Little Namaqualand and South-West Africa to the west, Bechuanaland to the north and the Orange Free State to the east could possibly be recognizably different to the resident birds of the Prieska district.

8. ON THE RACES OF *Ploceus* (*Hyphanturgus*) ocularius A. SMITH INDIGENOUS TO SOUTH AFRICA.

Roberts, writing in his 'Birds of South Africa,' 1940, p. 338, states that in the Spectacled Weaver, *Ploceus (Hyphanturgus) ocularius* A. Smith, "Only the one subspecies occurs within our limits according to recent authorities, though another, *Hyphanturgus ocularius crocatus*, or *H. o. suahelicus* according to others, has been recorded from the Lower Zambesi." W. L. Sclater in the 'Systema Avium Æthiopicarum,' 1930, p. 746, lists *P. (H.) o. suahelicus* Neumann as ranging from the littoral of Kenya Colony south through Tanganyika Territory to the Zambesi. As there would appear to be some doubt as to the races occurring in the South African subcontinent, I have recently brought together an adequate material from many parts of eastern and southern Africa which shows conclusively that two races can be listed as indigenous to this region.

A series of specimens collected by Sheppard in the Vumba, Southern Rhodesia, and at Zimbiti, near Beira, Portuguese East Africa, and now in the collection of the Natal Museum, differ from the nominate race from more southern districts in their smaller size and brighter, more golden coloration. I have compared these birds with specimens of P. (H.) o. crocatus and P. (H.) o. suahelicus kindly loaned for the purpose by the Trustees of the Coryndon Memorial Museum, Nairobi, through the good offices of the resident Ornithologist, Mr. J. G. Williams. I find that the three races under consideration are all very close, but that on the basis of the taxonomic series they are fully supportable. P. (H.) o. crocatus and P. (H.) o. ocularius differ from one another on size characters and slight differences in colour. P. (H.) o. suahelicus is at once separable from either of these subspecies on account of its brighter tones, while in size it agrees mainly with the former race, though the bill is longer.

As a result of this study I propose to recognize two races from the South African subcontinent, the ranges and characters of which are as follows :

A. Ploceus (Hyphanturgus) ocularius ocularius A. Smith.

Ploceus ocularius A. Smith, Ill. Zool. South Africa, Aves, pl. 30, fig. 2, 1839 : S.E. coast of South Africa.

 \mathcal{J} , *adult*.—Crown golden yellow, nape and rest of upper-parts olive green. Gorget, lores, and post-ocular stripe black. Under-parts chrome yellow, ear-coverts, sides of neck and lower throat suffused golden brown, flanks washed greenish. Wings and tail olive green.

Q, *adult*.—As in Z, but without the black gorget; throat golden brown.

Dimensions.—3 and 9. Wing 76-80 (77.7), culmen from base at skull 22-23 (22.7), tarsus 21-25 (22.8), tail 61.5-64.5 (63.4) mm.

Distribution.—Eastern parts of Cape Province, Natal, and eastern Transvaal, intergrading with the next race in the northern parts of its range.

B. Ploceus (Hyphanturgus) ocularius suahelicus Neumann.

Ploceus ocularius suahelicus Neumann, Journ. f. Orn., 1905, p. 339: Lowa, Usambara, Tanganyika Torritory.

 \mathcal{J} and \mathcal{Q} , *adult*.—As in *P*. (*H*.) *o. ocularius* but more yellowish on the upperparts, especially the rump, and underside much more golden with little or no greenish wash on the flanks. Smaller and with a pronouncedly shorter tail.

Dimensions.—3 and \bigcirc , wing 71–76.5 (73.4), culmen from base at skull 20–22 (20.6), tarsus 21.5–22.5 (22.2), tail 56–60 (57.2) mm.

Distribution in the South African subcontinent.—Certainly known from the low country of Portuguese East Africa south of the Zambesi in the neighbourhood of Beira, and from Vumba, Southern Rhodesia. More material will be necessary to ascertain its precise range, which presumably covers much of Rhodesia and southern Portuguese territory, and the disposition of the zone of contact with the nominate subspecies.

Extra-limital distribution.—The regions from the Zambesi northwards to Tanganyika Territory and coastal Kenya Colony.

Note.—A single juvenile of P. (H.) o. suchelicus differs markedly from examples of the typical race, being much brighter throughout, particularly on the under-parts, which are a brilliant yellow.

I am not satisfied with the arrangement of P. (H.) ocularius races found in eastern Africa. I have been hampered in arriving at a satisfactory decision by a complete lack of topotypical material of the race described from the Victoria Nile as P. (H.) o. crocatus (Hartlaub), 1881, Magungo, but I find that specimens from Lake Victoria have very small bills, i.e., 18-19 mm.; Lake Naivasha and Nairobi birds are a little larger (19.5–21.5 mm.), while a series from the Chyulu Hills, Kenya Colony, gives measurements of 20-23 mm., thereby agreeing closely with the nominate race. The Chyulu Hills birds are not referable to the coastal subspecies, P. (H) o. such elicus, on account of their darker and greener mantles, duller under-parts and greener flanks. In coloration they closely resemble the typical race, differing only in size, as follows: 3 and 9, wing 71-77 (74.5), tail 57-59.5 (58.0) mm. It is suggested that the Chyulu Hills series represents a new race worthy of recognition. I hesitate to give it a name owing to the paucity of my P. (H.) o. crocatus material. Of the race described from the southern parts of Abyssinia, namely, P. (H.) o. abayensis Neumann, 1905, Gigiro, I have examined no specimens.

9. ON SOUTH AFRICAN Coliuspasser ardens (BODDAERT).

Sclater, 'Systema Avium Æthiopicarum,' 1930, p. 767, and Roberts, 'Birds of South Africa,' 1940, pp. 348–349, among recent writers, admit only the nominate race of *Coliuspasser ardens* (Boddaert), 1783, Cape of Good Hope, from the South African subcontinent. Reichenow, 'Die Vögel Afrikas,' iii, 1904, p. 135 has introduced the name *Coliuspasser ardens* var. tropica for the populations found in Africa north of the Zambesi, the type-locality being Karema, Tanganyika Territory. This race has received little support from other workers, though additional subspecific names have been proposed on what appear to be slender grounds for neighbouring groups of populations in East Africa.

I have recently compared a series of breeding specimens of C. ardens from the coastal and inland parts of Natal and the Drakensberg Mts. with material in comparable dress from the eastern districts of Southern Rhodesia (Natal Museum Collection), and find them sufficiently distinct as to warrant the racial separation of the two population groups. Males in full breeding dress from Natal are a deeper and more bluish black and the tail is generally palpably shorter than in the northern bird, while females are appreciably darker and more heavily striated above, and on the under-parts they are more dusky, especially on the flanks. Young males from Natal used in this comparison are definitely darker both above and below than a single specimen in comparable plumage from Southern Rhodesia.

The tail measurements of the full-plumaged breeding males of the two series are of considerable interest. They are as follows :

Natal: 180, 190, 194, 198, 205, 210, 211, 213, 216, 217, 218, 220, 223, 224 (2), 225 (2), 230, 240, 241, 251 mm.

Southern Rhodesia: 247, 258, 258, 260, 275, 302 mm.

There is no significant difference in the wing-measurements of the two series, but those from Natal have a wider band of variation than is so in my Rhodesian material.

On the basis of the above observations it will be necessary to distinguish the northern populations of C. ardens as another race in addition to the nominate, southern subspecies, but the name C. a. tropica can only be used provisionally until such time as topotypical specimens of that race are available for comparison.

10. ON THE RANGE OF Granatina granatina (LINNÆUS).

Stark, 'Birds of South Africa,' vol. i, 1900, p. 104, gives the distribution of the Grenadier, *Granatina granatina* (Linnæus), as 'Griqualand West and the southern Transvaal to the Zambesi River, the Lake Ngami District and Damaraland,'' while Sclater, 'Systema Avium Æthiopicarum,' 1930, p. 806, lists it as occurring in the Benguella and Huilla Provinces of Angola in addition to the localities enumerated by Stark. Roberts, 'Birds of South Africa,' 1940, pp. 357,359, does not add to the recorded distribution.

The range of this species should be extended to Natal. There are four mounted specimens taken in 1933 near Pietermaritzburg by a Mr. T. Johnstone in the exhibition series of the Natal Museum, and I have recently observed the bird in the thorn country of the Umgeni River Valley at an altitude of 2000 ft. above sea-level.

EXPLANATION OF PLATES I AND II,

Illustrating Mr. P. A. Clancey's "Notes on Birds of the South African Continent."

PLATE I.

Side view of the Great Spotted Eagle, Aquila clanga Pallas, obtained at Himeville, Natal, in December, 1888. See pp. 136-138. Believed to be the first record of this Palæarctic species in the South African subcontinent. (Photo, R. A. Holliday.)

PLATE II.

Clamator glandarius (Linnzus). View of ventral surfaces of (A) the type of C. g. choragium, subsp. nov., alongside a near topotype (B) of C. g. glandarius. Note the more pronounced markings on the throat and upper breast of the specimen of the forma typica. (Photo, R. A. Holliday.)



Photo: R. A. Holliday.

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PI. I.



Photo: R. A. Holliday.

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