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Part I

MISCELLANEOUS TAXONOMIC NOTES ON AFRICAN BIRDS

XXIII

by

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1. THE AUSTRAL RACES OF THE NIGHTJAR CAPRIMUL-GUS FOSSII HARTLAUB.

Variation exhibited by *Caprimulgus fossii* Hartlaub has been studied by various students of the avifauna of Ethiopian Africa, namely, van Someren, *Novit.Zool.*, vol. xxix, 1922, pp. 85-86, Friedmann, *U.S.Nat.Mus.Bulletin*, No. 153, 1930, pp. 309-312; Bowen, *Proc.Acad.Nat.Sci.Philad.*, vol. lxxxiii, 1931, pp. 40-43; Grant and Mackworth-Praed, *Bull.Brit.Orn.Club*, vol. lviii, 1937, pp. 18-20; and Chapin, *Birds Belgian Congo*, part ii, 1939, pp. 425-428.

As doubt still exists as to how *C.f.mossambicus* Peters, 1868: Inhambane, southern Portuguese East Africa, and *C.f.welwitschii* Bocage, 1867, between Penedo and Cacuaco, Luanda, Angola, can be differentiated, and what the full extent of their respective ranges may be, I have recently investigated the variation in the southern populations, with the result that I propose to admit three races from zoogeographical South Africa, one of which is new. For the loan of material to augment that in the Durban Museum I am

indebted to the Directors of the National Museum of Rhodesia, Bulawayo (through Mr. M. P. Stuart Irwin), the Transvaal Museum, Pretoria (through Mr. O. P. M. Prozesky), and the South African Museum, Cape Town (through Dr. J. M. Winterbottom). For the loan of Angolan specimens I am grateful to Dr. A. A. da Rosa Pinto, Ornithologist of the Instituto de Investigação Científica de Angola, Sá da Bandeira. In all I have studied 220 specimens.

In so far as the southern populations are concerned, there is little variation in size between the littoral populations in the east and the plateau birds of the interior. The allegedly small size of C.f.mossambicus when compared with C.f.welwitschii stems from Bowen's comparison between specimens from coastal East Africa and others from the plateau to the west and south-west. Study of very adequate material now shows that topotypical C.f.mossambicus from southern Moçambique and C.f. welwitschii are not subspecifically distinguishable on a basis of size. Indeed, variation is relatively slight over much of the extensive southern range of this nightjar, but on series of skins it can be demonstrated fairly convincingly that to the south-east the populations are on the whole more richly coloured, with fairly well marked criteria of their own in having the black coronal and scapular streaks broader and more fully developed. It seems advisable to take cognisance of these differences and arrange the southern populations in two races, in keeping with current practice, under the names presently in use for them (C.f.welwitschii and C.f.mossambicus). The only markedly different populations to be considered are those which breed in the Kalahari and adjacent areas to the northward, and which spend the off-season further north in Angola, Zambia and the middle Zambesi River valley. Judging by the material available at the present time, such deserticolous populations are grever and colder in colouration than in either C.f.welwitschii or C.f.mossambicus. They are even better differentiated ventrally, exhibiting, especially in adult males, a much darker and more vinaceous grey breast plastron, which also largely lacks the buffy or vinaceous fan-shaped spots present in the other two southern African subspecies. I believe it desirable to separate such xeric and strongly migratory populations as an additional race, this being formally described below as C.f.griseoplurus.

Study of the variation exhibited by *C.fossii* is complicated by the fact that the birds of many populations are migratory or partially migratory, spending the off-season often at lower altitudes and alongside resident populations. This can and has resulted in examples of two races being collected at the same time in the same spot, and makes, in the light of a paucity of specimens shot from eggs, the

mapping of breeding ranges somewhat arbitrary. Breeding birds are usually slightly less richly coloured than those in newly moulted condition, but this nightjar is not as markedly affected by seasonal colour change as one would expect in the case of a bird which lies up during the daylight hours often in quite exposed situations. A final point which should be noted by future students is that what appear to be first-year birds are often markedly shorter in the wing than adults, and in the measurements given below I have selected birds which have been ascertained as fully adult.

The southern races of *C.fossii* are as follows:

(a) Caprimulgus fossii mossambicus Peters

Caprimulgus mossambicus Peters, Journ.f.Ornith., vol. xvi, 1868, p. 134: Inhambane, southern Portuguese East Africa.

Head-top with broad medial brownish black stripe, flanked laterally greyish buff, finely peppered with dull black; across the hind neck a bar of Sayal Brown (Ridgway, Color Standards and Color Nomenclature, 1912, pl. xxix) streaked with blackish; mantle, lower back, rump and upper tail-coverts about Deep Greyish Olive (pl. xlvi) finely vermiculated and striated with black; scapulars similar, but upper series largely black, broadly edged laterally with warm Buff (pl. xv), forming a prominent dual stripe. On under-parts, chin centre, and lower throat and breast about Sepia (pl. xxix), the feathers transversely barred and vermiculated with buffy white and sooty black, and with the breast decorated with cream-coloured or pale vinaceous fan-shaped spots; on either side of the throat a large patch of white feathers, fringed posteriorly with black; rest of underside pale buff (in pristine condition Pinkish Buff (pl. xxix)), barred with vermicular stripes of brownish black.

Material examined: 116. Natal, 3 (near Durban). Zululand, 5 (Ingwavuma R.). Swaziland, 5 (Lubuli, near Nsoko, 1; Big Bend,1; Stegi, 1; Sipofaneni, 2). Transvaal, 5 (Letsitella R., 1; Mokeetsi, 1; Platrivier, Waterberg, 1; Zoutpansberg, 2). Moçambique, 10 (Bela Vista, Maputo, 1; Maringua, Sabi R., 2; Chineziwa, 60 m. N. of Beira, 1; Msussa, Messenguese and Tsungu, Zambesi R., 6). Malawi, 13 (Chiromo and Port Herald). Rhodesia, 37 (Bulawayo, 6; Essexvale, 1; Umguza Forest Reserve, 3; Ngamo, Gwaai Reserve, 2; Wankie, 1; Beit Bridge, Limpopo R., 1; Selukwe, 5; Nuanetsi, 1; Sabi/Lundi confl., 4; Chisos, Sabi R., 1; Birchenough Bridge, 1; Inyanga, 1; Salisbury, 2; Lonely Mine, 2; Chirundu, 2; 23 m. E. of

Binja, Zambesi R., 2; Kariba, 2). Northern Bechuanaland, 1 (Kabulabula (23 July, 1930)). Zambia, 32 (Senanga Lagoon, Barotseland, 1 (31 July, 1952); Shangombo, Barotseland, 1 (7 August, 1952); Namwala, 5 (September); Chilanga, 1; Lusaka, 1; Zambesi R. valley E. of Livingstone, 3; Lochinvar, 1; Mpika district, 5; Petauke district, 1; Fort Jameson, 3; Lundazi, 1; Mupamadzi, Luangwa, 1; Kasama, 1; Mporokoso district, 4; Milomfi, Luwingu, 1; Kasaba, L. Tanganyika, 1; Abercorn, 1). Tanganyika, 5 (Lake Rukwa).

Range: Breeds coastal Natal south to about Durban, eastern Zululand, eastern Swaziland, eastern and northern Transvaal, Rhodesia in the Midlands and Eastern Districts, Moçambique, Malawi, south-western Zambia (mainly south-east of Muchinga Escarpment), and, apparently, south-western and southern Tanganyika (mainly intergrades). Intergrades with C.f.welwitschii to the west of its stated range. The plateau populations are migratory, and present race identified from within breeding range of C.f. welwitschii in Barotseland and Zambia (Namwala), and elsewhere.

Remarks: The broad brownish black coronal streak, broad black, buff-edged scapular streaks, reddish hind neck bar, and strong ochraceous dorsal overlay distinguish this race. C.f.mossambicus is, when recognised, generally separated wholly on the basis of size from C.f.welwitschii, being supposedly smaller, but as can be appreciated from the measurements provided there is in fact no mensural difference between the two taxa.

(b) Caprimulgus fossii griseoplurus, subsp. nov.

Type: ♀ adult. 17 miles east of Murwamusa Pan, Kalahari, Bechuanaland Protectorate (24° 5′ S., 23° 4′ E.), 27 February, 1961. Collected by R. H. N. Smithers. In the National Museum, Bulawayo, Rhodesia. N. M. Reg. No. 45689 (Collector's number S. W. K. 313).

Diagnosis: Differs from C.f.mossambicus, as defined above, in having the lanceolate streak of the medial plane of the crown more jet, less brownish black, and with the lateral coronal surfaces, nape, mantle and centre of the back clear, light smoky grey, peppered with blackish, lacking the deep buff or ochraceous overlay present in C.f.mossambicus. Wings and tail also greyer. On the under-parts, much as in C.f.mossambicus, but males at least differ in having the lower throat and breast darker (about Hair Brown (pl. xlvi) as against predominantly Buffy Brown (pl. xl) in C.f.mossambicus), and with the off-white or vinaceous tinged fan-shaped spots reduced or absent, resulting in a more sharply defined and darker plastron. Size closely similar to C.f.mossambicus.

Measurements: Wings of 4 33 157-166 (163.4), tails 120-132 (127.7), wings of 6 Ω 158-163 (161.1), tails 116-129 (123.5) mm.

Material examined: 12. Angola, 1 (Lake Dilolo, 3 ad., 5 August, 1958). Bechuanaland, 6 (Orapa Well, 3 ad., 16 January, 1959; 17 miles E. of Murwamusa Pan, φ ad., 27 February, 1961; Kedia, Lake Dow, 2 33 ads., 24 January, 1959; 10 miles S. of Francistown, φ sub-ad., 19 January, 1954; Shorobe, Maun, φ ad., 5 December, 1962). Rhodesia, 1 (Costain's Dam, Chirundu, φ sub-ad., 28 December, 1963). Zambia, 4 (Chiawa, Zambesi R., 3 ad., 7 April, 1961; Kafue R. at 14° 18′ S., 27° 18′ E., φ ad., 24 February, 1958; 20 miles W. of Mankoya, φ ad., 9 September, 1959; Balovale, 3 ad., 24 November, 1959).

Range: Breeds during the wet season in the Kalahari and adjacent northern Cape from about the Molopo northwards (Smithers, Check List Birds Bechuanaland Protectorate, 1964, p. 98) to Lake Dow, Makarikari and Ngamiland. Apparently present on breeding grounds December — February, wintering further north in Africa, and identified from Zambesi R. valley, and localities in eastern Angola and western Zambia between 24 February and November. The breeding season in the desert biome in all probability varies from year to year in sympathy with variation in the dates of the commencement of the rains.

Measurements of the Type: Wing (flattened) 159, exposed culmen 8, tarsus 22 (approximate), tail 129 mm.

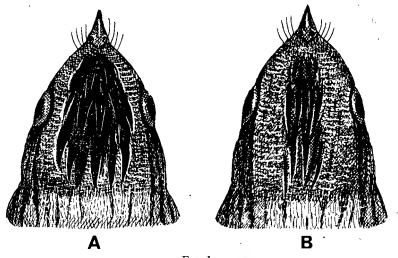


Fig. 1

Caprimulgus fossii Hartlaub

Coronal aspect of heads of two races of Caprimulgus fossii showing marked variation in extent of medial streak.

A. C.f. mossambicus

B. C.f. welwitschii

Remarks: The name appended to this new form is descriptive of the abundant greyness of the upper-parts and pectoral surface. Grey dorsal colouration, broad black coronal streak, and dark breast plastron distinguish this new race.

(c) Caprimulgus fossii welwitschii Bocage

Caprimulgus Welwitschii Barboza du Bocage, Journ.Sci.Math. Phys.Nat.Lisboa, vol. i, 2, 1867, p. 133: Between Penedo and Cacuaco, Luanda, Angola.

Crotema fossii youngi Roberts, Ann. Transv. Mus., vol. xv, 1, 1932,
 p. 26: Livingstonia, northern Malawi.

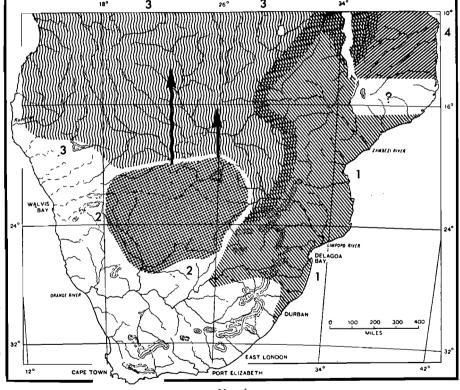
Similar to *C.f.mossambicus* but differs in being lighter and less overlaid with ochraceous on the upper-parts, the rusty band across the hind neck lighter (Cinnamon-Buff (pl. xxix) against Sayal Brown (same pl.)). Also with blackish brown coronal streak narrower and markedly less fully developed in series, and with the black parts of the scapulars reduced in size, this reduction in area of black in the dorsal plumage heightening the impression of pallor. On the underside not always separable, but lighter and more vinaceous tinged, less dark and brown, over the lower throat and breast in series. Wings and tail rather lighter, the primaries in females often with distinctly defined crescentic, greyish, black peppered, markings.

Compared with *C.f.griseoplurus*, lighter, less cold and grey, on the upper-parts, wings and tail, such parts distinctly more buffish or ochraceous tinged, and with the coronal streak narrower and less well developed and the black areas of the scapulars reduced in size. On the underside, rather deeper buffish suffused in series, and with the lower throat and breast, particularly in males, markedly less cold greyish, being buffier, and more vinaceous tinged and less plain, the latter surface profusely decorated with vinaceous buff, fan-shaped spots.

Measurements: Wings of $10 \ \mbox{33} \ 161-173 \ (165.5)$, tails $125-135 \ (131.3)$, wings of $10 \ \mbox{$\mathbb{Q}$} \ 156-165 \ (160.3)$, tails $117.5-126 \ (120.4)$ mm. Mainly Angola and western Rhodesian specimens.

Material examined: 77, Angola, 11 (Samba, Luanda, 1; Belas, Luanda, 2; Dange-ia-Menha (not traced), 1; Pedra Grande (Caraculo), 2; Fazenda da Cacanda (Bibala), 4; Capangombe, Moçamedes, 1). South West Africa, 1 (Swaartboois Drift, Cunene). Bechuanaland and Caprivi, 4 ("Tebra country", 1; Kasane, 1; Tuli Breeding Station, 1; Lake Liambesi, Caprivi, 1). Zambia, 21 (Kasempa, 1; Chilanga, 2; Mazabuka, 2; Lusaka, 1; Chisamba, 1; Mulanga, 1; Zambesi R. valley at 17° 45′ S., 27° 12′ E., 4; Ndola, 1; Fort Jameson, 4; Chisenga, 1; Luapula R., 1; Lake Kako, Mporokoso, 1; Mutoni,

Bangweulu, 1; Kasaba, Lake Tanganyika, 1). Rhodesia, 28 (Nyamandhlovu, 3; Bulawayo, 4; Umguza Forest Reserve, 3; Gwaai Reserve, 2; Nagapande Tsetse Fly Zone, 1; Wankie, 2; Sapi/Zambesi confl., 1; Chongwe/Zambesi confl., 1; Kariba, 4; Makwa, 2; 40 m. E. of Chirundu, 1; Chisos, Sabi R., 1; Nuanetsi R. between Malipati Drift and bridge, 1; Bubye/Limpopo R. confl., 1; Chitza's, Sabi/Lundi confl., 1). Moçambique, 1 (Maringua, Sabi R.). Transvaal, 1 (near Pretoria). Swaziland, 1 (Sipofaneni (31 August, 1955)). Zululand, 4 (Kangazeni Pan, 1; Ingwavuma R., 2; Tschemula Drift, Pongola R., 1). Tanganyika, 4 (Lake Chaya, 1; Chikoma, Lake Rukwa, 1; Chiwanda, Lake Nyasa, 2).



Map 1

CAPRIMULGUS FOSSII Hartlaub

Sketch-map showing the austral ranges of the four races of the nightjar Caprimulgus fossii occurring in southern Africa.

- 1. Caprimulgus fossii mossambicus Peters
- 2. Caprimulgus fossii griseoplurus Clancey
- 3. Caprimulgus fossii welwitschii Bocage
- 4. Caprimulgus fossii? clarus Reichenow

Area of heavy shading represents zone of intergradation. Black arrows indicate extent of northward movement of No. 2 C.f.griseoplurus in off-season. No. 4 C.f.? clarus may actually be referable to an undescribed small race.

Range: Breeds in the north-western and northern Transvaal, northwards to western Matabeleland and adjacent Bechuanaland (specimens from Tuli and Kasane), western and northern Zambia (north and west of Muchinga Escarpment), the Caprivi Strip and northern South-West Africa, Angola, and the south-western and southern Congo. Southern plateau birds move during the cold dry winter months, when examples of C.f.welwitschii may be found within the range of the largely resident lowland populations of C.f.mossambicus. Intergrades to the east of its range with C.f. mossambicus.

Remarks: Lightly coloured upper-parts and narrow coronal streak differentiate this wide-ranging race.

Breeds mainly September—November, in the southern aspects of its range at least. The Nagapande bird was flushed from 2 eggs on 15 October, 1962. Many juveniles are in advanced moult by the latter part of December, judging by the material examined from western Rhodesia. Traylor, in his Angolan *Check-List*, 1963, p. 86, records it breeding as early as August in Angola.

Extralimital Subspecies

The three extralimital subspecies may be briefly listed:

Caprimulgus fossii fossii Hartlaub

Caprimulgus Fossii Hartlaub, Ornith.Westafrik., 1857, p. 23; Gabon.

Described by Chapin, *Birds Belgian Congo*, part ii, 1939, p. 426, as dark in colour, finely speckled above with whitish grey, apparently lacking the tawny or buffish overlay of either *C.f.welwitschii* or *C.f.mossambicus*. Also small in size: wings 141-150.5, tails 96-113 mm.

Range: Apparently confined to the Gabon and adjacent parts of western equatorial Africa. Not examined.

Caprimulgus fossii? clarus Reichenow

Caprimulgus clarus Reichenow, Journ.f.Ornith., 1892, p. 29: Bukoba, Lake Victoria, north-western Tanganyika.

Rather similar to C.f.welwitschii, but not usually quite so buffish tinged above in fresh condition, being greyer, and with the coronal streak nearer C.f.mossambicus in many examples, but differs best on the basis of smaller size: wings of 3 33 141-149, 5 \cong 139-152 (145.1) mm. Further differs in that the central rectrices extend further beyond the apices of the innermost pair. Eight examined.

Range: Occurs to the east of the range of C.f.welwitschii, with which it intergrades in western Tanganyika and Uganda, extending

from the highlands and coastal districts of Kenya, south to northern and central Tanganyika, south in the east to northern Moçambique (Lumbo).

Remarks: Judging from the writings of others, clarus, with its type-locality at Bukoba, on the west shore of Lake Victoria, may well be a synonym of C.f.welwitschii, or an earlier name for apatelius, in which case a new name for the small East African coastal bird will be required. Grant and Mackworth-Praed, loc.cit., after examining the Type of clarus pronounced it the same as apatelius, which they place in the synonymy of the earlier name. Apparently the Type of clarus does not agree with other Bukoba material available.

C.f.?clarus, as here admitted, agrees with the C.f.mossambicus (or C.f.mosambiquus) of most workers, but cannot be placed with that form because of its small size and rectricial character.

Caprimulgus fossii apatelius Neumann

Caprimulgus apatelius Neumann, Ornith. Monatsber., vol. xii, 1904, p. 143; Galena R., at Abaya Lake, southern Abyssinia.

Paler and more sandy grey above than C.f.?clarus, the coronal streak markedly less expansive, and scapulars with less black. Wings and tail also paler, the latter much less heavily transversely barred with blackish, the bars obsolete in some. On under-parts rather more pinkish, the breast lighter, and more heavily decorated with fanshaped spots of buff or pale vinaceous. In size ranging a little larger than C.f.?clarus, but five measured by me are similar: 2 6.6 148, 150, $3 \Leftrightarrow 145$, 150, 152 mm. Tail markedly more graduated, the central rectrices greatly extended beyond the apices of the outermost pair. Seven examined.

Range: Northern and north-western Kenya (south in the Rift to about Lake Magadi), and central Abyssinia (Hawash region and south Shoa), to the Danakil Coast and Somalia.

2. RACIAL VARIATION IN THE ROCK-THRUSH MONTICOLA ANGOLENSIS SOUSA

Reichenow, Vog. Afrikas, vol. iii, 1905, pp. 698, 699, was the first worker to demonstrate the existence of geographical variation in the Angola or Mottled Rock-Thrush Monticola angolensis Sousa, 1888. Caconda, Huila, Angola, a species almost peculiar to the Brachystegia biome of south-central Africa, when he recognised both nominotypical Mangolensis and Maniassae Reichenow, 1905: no locality, but Type from north of Lake Nyasa, Tanganyika. Reichenow's arrangement of the populations into two races has not been followed by the main body of workers, with the exception of