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### MISCELLANEOUS TAXONOMIC NOTES ON AFRICAN BIRDS XLIV

by

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#### MORE ON VARIATION IN CAMPEPHAGA FLAVA VIEILLOT

In my study of variation in the cuckoo-shrike Campephaga flava Vieillot, which is better treated as a full species rather than a race of the northern Campephaga phoenicea (Latham), in Durban Mus. Novit., vol. ix, 5, 1971, pp.48-50, I dealt in the main with the geographical incidence of colour morphs in males. Variation in adult females and in sub-adults of both sexes was commented on somewhat briefly, and then only to point out its extensive nature which at that stage seemed to have no direct geographical correlation. Reexamination of the variation in adult females of C. flava from the South African Sub-Region suggests that the species may be racially divisible on marked differences in the dorsal colouration. Freshly moulted material in the Durban Museum collection reveals that females from the Cape, Natal and Zululand, Swaziland, the eastern Transvaal and extreme southern Mozambique have the vertex, hind and sides of the neck and mantle saturated Medal Bronze (Ridgway, Color Standards and Color Nomenclature, 1912, pl. iv). In sharp contrast to these relatively dark birds, specimens taken during the winter months in Mozambique north of the lower Limpopo R, and in south-eastern Rhodesia are palpably paler over the upper-parts, with the head-top, neck and mantle Saccardo's Olive (pl. xvi) or greyer, the rump and upper tail-coverts with a lighter ground colour.

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in synonymy is available for any such East African subspecies of the Black Cuckoo-Shrike.

It seems desirable to defer making formal proposals in respect of a breakdown of *C.flava* until much more is known of its complex post-breeding movements and the breeding and hibernal areas of the three population groups which appear recognisable.

# FURTHER ON THE NOMINATE SUBSPECIES OF *DICRURUS ADSIMILIS* (BECHSTEIN), 1794: DUIWENHOK R., SWELLENDAM, SOUTH-WESTERN CAPE

In his revision of the Dicruridae in Bull.Amer.Mus.Nat.Hist., vol. xciii, 4, 1949, pp. 222-231, Vaurie admitted five races of the African Forktailed Drongo Dicrurus adsimilis, the nominate race considered to range over the whole of Africa south of the rain forest, i.e., the Congo or Lower Guinea Forest, extending in the east to Uganda and Kenya "outside the forests". The proposed breakdown of D.a.adsimilis into two minor subspecies on the basis of differences in winglength advocated by some workers, in which D.a. fugax Peters, 1868: Tete and Inhambane, Mozambique, is utilized for eastern low country birds, was, following Friedmann, Bull.U.S.Nat.Mus., No. cliii, 1937, pp. 61-65, rejected. Variation within the populations comprising Vaurie's nominate race of D.adsimilis was again explored at some depth in my paper in Bull. Brit. Orn. Club., vol. lxxvi. 5. 1956, pp. 79-85, the opinion being expressed that fugax is a distinguishable subspecies on the basis of smaller size, deeper black general colouration in adult birds, and paler inner webs to the primaries. In denying acceptance to fugax, both Friedmann and Vaurie were influenced in their decisions by the finding that short-winged birds are not restricted to the humid coast of East Africa, but extend as far inland as high western Kenya and Uganda, while both stated authors make no mention of differences other than in wing-length. Indeed, Vaurie seems to have completely overlooked the fact that there is marked and taxonomically significant variation in the colouration of the inner webs of the primaries in what he interprets as the nominate race of D.adsimilis. As fugax is still more often rejected than recognised by workers, I recently re-examined the variation in the nominate adsimilis and fugax populations on the basis of the large series in the Durban Museum in an effort to find a more generally acceptable arrangement of the southern populations of the present drongo, and in so doing define the actual limits of the nominate race.

In southern and eastern Cape and Natal specimens of the Forktailed Drongo, the former being topotypical of nominate *D.adsimilis*,

the wings of 17 adult 33 measure 134 - 143 (spectrum 9) (138,9). SD 2,37, SE 0,58, tails 117 - 126 (122,3), SD 3,10, SE 0,75, and in 10 99 wings 132 - 139 (spectrum 7) (134,6), SD 2,09, SE 0,66, tails 115 - 124 (119,1), SD 2,57, SE 0,81 mm. These size data contrast sharply against the composite measurements provided by Vaurie for the nominate subspecies: wings of 33 119-143 (spectrum 24) (130.8), ♀♀ 118 - 136.5 (spectrum 18.5) (129.4), tails of ♂♂ 102.5 -126 (112,7), 999 - 123 (110,8 mm). The general colouration is a dull jet black, shot with greenish blue or steely lustre, and in the wings the inner webs of the primaries are Chaetura Drab (Ridgway, loc. cit., pl. xlvi), blackening apically. The tail is deeply furcate and somewhat lyrate. Populations, the adults of which exhibit such characters, range from the south-western, southern and eastern Cape to the Orange Free State, the lowlands of Lesotho, Natal and Zululand, western Swaziland, and the highveld of the Transvaal (except the dry west). North and north-east of these large-sized and relatively dark winged birds occur much smaller representatives, the adults of which are a deeper, more jet, black, and have appreciably paler inner vanes to the primaries (about Light Drab (pl. xlvi)). The wings of 17 33 show a wing-length spectrum of 11 and measure 123 - 134 (127,7), SD 2,88, SE 0,70, tails 104 - 116,5 (110,4), SD 4,08, SE 0,99, 8 ♀♀ wings (spectrum 9) 120 - 129 (123,5) SD 2,89, SE 1,02, tails 102 - 116 (107,9), SD 4,13, SE 1,46 mm. These small, saturated and pale winged birds, which represent the subspecies D.a. fugax, described originally from southern Mozambique, range from Uganda and Kenya south of the range of D.a.divaricatus 1823: Senegambia, south (Lichtenstein). to Tanzania, Zambia, Malawi, Mozambique, Rhodesia, eastern Swaziland and north-eastern Zululand. The humid lowland and high, cool interior regions included in the range defined for fugax indicate that the small size and pale wing-colouration are not the result of simple responses to altitudinal and temperature factors, as one might expect, thereby adding weight to the argument in favour of admitting the validity of D.a. fugax. It is also frequently asserted that the size shift from adsimilis to fugax is clinal (see for instance Benson et al., Birds of Zambia, 1971, p. 201), but this does not appear to be so, as transition between large-sized southern and western birds and the much smaller eastern ones is generally accomplished by means of a relatively narrow belt of simple intergradation (see map in Clancey (1956)).

In my 1956 paper I grouped the populations of South West Africa and Botswana, north to Angola, Zambia and southern Zaïre in the nominate subspecies, doing so on the closely similar wing-length of

such northern populations to that of topotypes from the Cape. Vaurie, loc.cit., p. 223, gives the wings of coastal Angola birds from Benguela as 9 33 138 - 143 (140,0), SD 1,41, SE 0,47, 5 \Q 130,5 - 141 (135,4), SD 3,96, SE 1,77 mm., which measurements compare very closely with the data from Cape and Natal birds measured for the present study (see above). The rather large standard deviation in the case of Benguela females suggests the use by Vaurie of at least one bird still carrying juvenal flight-feathers. Linking the Benguela and Cape populations are others present in southern Angola, South West Africa and Botswana, which are comparably long-winged. A reexamination of the D.a.adsimilis of my arrangement of 1956 reveals that the populations of the Forktailed Drongo ranging from the north-western Cape (Kenhardt), the northern Cape (Kuruman) and the dry western Transvaal (Groot Marico), Botswana and South-West Africa, north to the Cuanza R. in Angola have the inner vaning of the primaries pale as in D.a. fugax and are taxonomically distinguishable on this score from the nominate subspecies. I believe it desirable to take cognisance of this salient character, grouping the populations of the Forktailed Drongo lying to the south of the ranges of D.a.divaricatus and D.a.coracinus Verreaux and Verreaux in three rather than two races, as follows:

(a) **Dicrurus adsimilis adsimilis** (Bechstein), 1794: Duivenhok R., Swellendam, south-western Cape.

Adult wholly jet black with lustrous greenish blue sheen to upperand under-parts; primaries with inner vanes greyish Chaetura Drab, blackening apically. Wings of 33 134 - 143, tails 117 - 126,  $\varphi\varphi$  wings 132 - 139, tails 115 - 124 mm.

Range: South-western, southern, eastern Cape (including Griqualand West), the Orange Free State, the lowlands of Lesotho, Natal and Zululand, western Swaziland, and the highveld of the Transvaal (except dry west).

### (b) Dicrurus adsimilis apivorus, subsp.nov.

Type:  $\mathfrak{P}$ , adult. Farm Klipkop, c. 29 km S. of Otjiwarongo, northern South West Africa, at c. 1875 m. a.s.l. 25 May, 1959. Collected by Durban Museum personnel. In the collection of the Durban Museum, D.M. Reg. No. 12 545.

Adult similar to *D.a.adsimilis*, but more saturated jet black in series. Differs taxonomically in having the inner vanes to the primaries much paler, being about yellowish or greenish Light Drab. Similar in size.

Measurements of the Type: Wing (flattened) 134, culmen from base 25, tail 118 mm.

Range: North-western Cape along the Orange R., south to Kenhardt, northern Cape in Gordonia, Kuruman and Bechuanaland districts, South West Africa, Botswana (except north-east), dry western Transvaal, southern Angola, western and northern Zambia and Shaba, Zaïre. Intergrades with coracinus along the lower Cuanza R., Angola.

Remarks: The subspecific name chosen for this new racial taxon is the latinized version of a popular vernacular name of the species in southern Africa: the Beebird or Bee-eater.

Examination of a panel of over seventy specimens of *D.adsimilis* from Zambia shows that D.a.apivorus extends across the north of the territory to about Mbala (Abercorn) in the north-east, and as far east as 26° E. in the south. Eighteen accurately determined adult 32 from Kabompo Boina, Solwezi, Mwekera (Kitwe), Mbala, Mpika, Mumbwa, Pemba and Livingstone have wings 133 - 141 (137,7), SD 2,11, SE 0,50. Fourteen adult 39 from Chilanga at 15° 35′ S., 28° 18' E., are intermediate in size between apivorus and fugax, with wings 127 - 134,5 (131,0), SD 2,01, SE 0,54. The limited Zambian series of fugax from Feira and Kariba on the Zambesi, Kalichero, Chipata (Fort Jameson), Katete and other south-eastern localities give wings in 11 adult 39 126 - 132 (128,0), SD 2,15, SE 0.65mm. Apart from insolation based colour modification, there is a measure of individual variation in the metallic sheen to the upperand under-parts in the Zambian series, some examples being distinctly more purplish or violet blue-black, less steely blue-green, than others, while one or two specimens have a dull but distinct oily green nuance to the ventral surface. I am unable to say whether this latter indicates an incipient shift towards D.a.coracinus in such north-eastern populations of apivorus or is entirely fortuitous.

The polarised size variation in the Forktailed Drongo in Zambia militates against the use of the cline concept as a device for the non-recognition of *D.a. fugax* and presumably any other proposed breakdown of the nominate *D.adsimilis* of most authors (see also comment in general discussion above).

(c) **Dicrurus adsimilis fugax** Peters, 1868: Tete and Inhambane, southern Mozambique.

Similar to D.a.apivorus but differs in its much smaller size: wings of topotypical 33 123 - 134, tails 104 - 116,5, 99 wings 120 - 129, tails 102 - 116 mm.

Compared with *D.a.adsimilis* differs in its much smaller size, deeper black general colouration, and paler inner vanes to the primaries.

Range: Uganda and Kenya south of D.a.divaricatus, Rwanda, Burundi, Tanzania, eastern Zambia, Malawi, Mozambique, Rhodesia (unstable), north-eastern Botswana towards Zambesi R. valley, eastern Transvaal lowveld (unstable), eastern Swaziland, and the north-eastern lowlands of Zululand. Intergrades narrowly to the west with apivorus and with nominate adsimilis in the extreme south of the range.

## SUBSPECIATION IN THE SQUARETAILED DRONGO DICRURUS LUDWIGII (A. SMITH), 1834

The small, forest-dwelling drongo Dicrurus ludwigii was first made known to science on the basis of material collected at Port Natal (Durban), Natal, during the course of Dr. Andrew Smith's epic journey to the court of the Zulu tyrant, Dingaan, in 1832. The species, named for Baron C. F. H. von Ludwig (1784–1847), ranges locally and disjunctly over the south-eastern and eastern lowlands of Ethiopian Africa from the eastern Cape, north in the littoral to the lower Juba R. in Somalia, and again from the north-east of Zambia and adjacent Zare, west to the escarpment zone of Angola, and from northern Angola northwards and western Kenya and the southern Sudan westwards to Guinea-Bissau — and, perhaps, The Gambia and Senegal — in far West Africa. Over much of forested central Africa it is replaced by the closely allied Dicrurus atripennis Swainson.

Sclater, Syst. Av. Aethiop., part ii, 1930, pp. 594, 595, admitted two races in *D.ludwigii*, considering *D.sharpei* Oustalet, 1879: upper Ogooué R., Gabon, a separate species. Grant and Mackworth-Praed, Bull.Brit.Orn.Club, vol. lxii, 1942, pp. 61, 62, reviewed the eastern African populations on a series of thirty-seven specimens, recognising three races in the general area the southern Sudan and western Kenya, south to South Africa. While they do not discuss the matter, the comments made by these two workers suggest that they concurred with Sclater in considering D.sharpei specifically distinct from D.ludwigii and its component races. Vaurie, Bull. Amer. Mus. Nat. Hist., vol. xciii, art. 4, 1949, pp. 218–220, disallowed the findings of Grant and Mackworth-Praed, placing D. elgonensis Van Someren, 1920: Lerundo, near Kaimosi, western Kenya, in the synonymy of D.l.sharpei, and D.l.muenzneri Reichenow, 1915: Sanji, Mahenge district, Tanzania, as a synonym of D.l.ludwigii. Earlier, Sclater had placed mucnzneri as a probable synonym of D.a.divaricatus (Lich-