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## MISCELLANEOUS TAXONOMIC NOTES ON AFRICAN BIRDS XXXVII

by

P. A. CLANCEY

(Director, Durban Museum, Durban)

### THE GREAT SPOTTED CUCKOO IN SOUTHERN AFRICA

The Great Spotted Cuckoo *Clamator glandarius* (Linnaeus), 1758: Gibraltar, of the western Palaearctic and Ethiopian Regions was first demonstrated to be polytypic by the present author in 1951 (*vide* Clancey, *Ann.Natal Mus.*, vol. xii, 1, 1951, pp. 139-142), when I described the South African breeding population as *C.g. choragium* Clancey, 1951: near Hlobane, northern Natal, on the basis of smaller size when compared with Palaearctic breeding birds. These findings resulted from a personal examination of the small Natal Museum series of the species and an independent study of the holdings of the American Museum of Natural History, New York, by the late E. Thomas Gilliard. While accepted as a valid taxon for some years, *C.g. choragium* is now often treated as a synonym of *C.glandarius* following the comments of Vaurie, *Birds of the Palearctic Fauna*, vol. ii (Non Passeriformes), 1965, pp. 574, 575. Earlier, Grant, *Ibis*, 1915, p. 416, Meinertzhagen, *Ibis*, 1922, p. 53, and Friedmann, *Bull.U.S.Nat.Mus.*, No. 153, 1930, pp. 266-268, showed this cuckoo varied greatly in size, but were unable to relate the variation to geography, and believed the species to be inordinately individually variable. Roberts, *Birds of South Africa*, 1940, pp. 140, 141, and other authors have commented to a greater or lesser degree on the possibility of the species being polytypic.

R.). *N.m.mariquensis*, 260; *N.m.osiris* Finsch, 5; *N.m.suahelica* (Reichenow), 3; *N.m.ovambensis*, 12.

*Range:* Natal (to the Valley of a Thousand Hills, Umgeni R. drainage), Zululand, eastern Swaziland, southern and western Sul do Save, southern Moçambique, eastern and northern Transvaal, southern and south-eastern Rhodesia.

*Measurements of the Type:* Wing (flattened) 63, culmen from base 25,5, tarsus 17,5, tail 41mm.

*Remarks:* The new race appears to be largely resident though subject to local movement within its established range. One adult male with a wing of 69mm taken at Bela Vista, Sul do Save, by Durban Museum personnel on 28 August, 1960, is evidently a wintering example of *N.m.mariquensis* from the interior.

*Cinnyris mariquensis ovambensis* Reichenow, 1904: Ochimbora, Ovamboland, northern South-West Africa, is universally treated as a synonym of the nominate race, though recent examination of the material in the National Museum of Rhodesia, Bulawayo, indicates that it may be valid. Birds from Ovamboland and southern Angola, east to south-western Zambia (Liuwa Plain, Luachi R., and Imusho) and the swamp region of northern Botswana are small-sized (as in *N.m.lucens*) and differ further in that the males have the ventral surface below the metallic plastron and maroon breast cincture deep sooty brown rather than the greenish or bluish glossed jet black of *mariquensis* and *lucens*. In this they show a shift towards *N.m.suahelica*. The breast cincture is also rather lighter, being less dark and purplish.

The limited material currently available also indicates that *N.m.ovambensis* grades into nominate *mariquensis* to the south and south-east of its range as outlined, and is not associated with the equally small *lucens*. I believe, however, examination of further material to be necessary before the race is formally resurrected from the synonymy in which it has reposed for so long.

#### THE SUBSPECIES OF THE *LATHAMII*-GROUP OF *QUELEA QUELEA* (LINNAEUS)

In 1960 I demonstrated that the populations of the Redbilled *Quelea Quelea quelea* (Linnaeus) of South Africa and adjacent parts of south-central Africa could be grouped into two subspecies. In this pioneer study I used the name *Q.q.lathamii* (Smith), 1836: near

Zeerust, western Transvaal, for the northern populations breeding from western and south-western Angola and northern South-West Africa, east to the dry interior districts of southern Moçambique, and introduced as new *Q.q.spoliator* Clancey, 1960: near Bergville, Natal (*vide* Clancey, *Bull.Brit.Orn.Club*, vol. lxxx, 4, 1960, pp. 67, 68), for the darker populations of the mesic south-eastern highlands and peripheral areas. As so frequently happens in a case of this nature in which a species is being studied intensively and in great depth by other, contemporary workers, usually non-systematists, my findings of 1960 were summarily rejected, first of all by Lourens, *Ostrich*, vol. xxxii, 4, 1961, p. 187, and later by Ward, *Ibis*, vol. cviii, 1, 1966, pp. 34-40. Moreau, in the continuation of Peters' *Check-list Birds of the World*, vol. xv, 1962, p. 62, follows Lourens in treating *spoliator* as a synonym of *lathamii*. Despite these adverse criticisms, I admitted two races of *Q.quelea* for southern Africa in my *Cat.Birds S.Afr.Sub-Region*, part v, 1966, pp. 581, 582, and discussed the matter further in *Durban Mus. Novit.*, vol. viii, 12, 1968, p. 168. The subdivision of *Q.q.lathamii* was not followed by the S.A.O.S. List Committee in their *Check List Birds South Africa*, 1969, pp. 300, 301, while Ward, in his recent study of migration patterns in this quelea, makes no mention at all of *spoliator*, treating all the southern populations as *Q.q.lathamii*, though now prepared to recognise the equally contested *Q.q.intermedia* (Reichenow), 1886: Brava, southern Somalia, of East Africa.

I have recently been able to devote time to assembling adequate material and restudying variation in *Q.quelea* in southern Africa, utilizing new material in both the Durban Museum and the National Museum of Rhodesia, Bulawayo, supplemented by loans of additional specimens from South-West Africa (State Museum, Windhoek), and Angola (Instituto de Investigação científica de Angola, Sá da Bandeira). This new study confirms my findings of some thirteen years ago in that the *lathamii*-group of populations is readily divisible into two subspecies. For help with material I am grateful to Mr. M. P. Stuart Irwin, Mr. P. J. Buys and Dr. A. A. da Rosa Pinto. Mr. E. L. Button, Taxidermist of the Durban Museum, went to much trouble to collect a fine panel of specimens in critical areas in the western Transvaal. Four hundred and fifty specimens were studied in Durban in furtherance of this research.

#### Subspecific variation in the *lathamii*-group

Variation of geographical significance is simple, comprising a single parameter — variation affecting the coloration of the upper-parts,

wings and tail. The populations breeding over and peripheral to the south-eastern highland system of southern Africa are characterised, especially in the non-breeding dress, in having the head-top, nape and hind and sides of the neck a dark greyish earthen brown, the edgings to the mantle and scapular feathers pale (vinaceous white), the rump and upper tail-coverts distinctly greyish, and in the wings, the secondaries and tertials are usually edged with off-white. Ventrally, the birds are whitish, lightly squamated with grey or dusky over the breast and sides, and the flanks are streaked with same. In breeding dress, males assume a black forehead, facial mask and upper fore-throat, the posterior and lateral head surfaces, lower fore-throat and upper breast buff, with or without rose overlay. In the so-called "*rusi*" morph the black over the head is wanting, the whole head buffy or ochraceous, with or without a rose wash.

The populations just described comprise those named by me as *Q.q.spoliator* on a sample from the high interior of Natal. It is interesting to note that when Sclater arranged the populations of this quelea in races in *Bull.Brit.Orn.Club*, vol. xlvi, 1925, pp. 19, 20, the species was believed not to occur south of the Orange R. in the west and to reach Natal and Zululand in the east of the Sub-Region.

*Q.q.spoliator* spends the non-breeding season to the north-west and north of the breeding range. Judging from the reasonably generous samples studied it is then concentrated in northern South-West Africa (? and southern Angola), northern Botswana (? and the Caprivi Strip), north-western Rhodesia, Zambia, and further to the east in Manica e Sofala, southern Moçambique, and southern Malawi. This finding on specimens studied is substantiated by records of birds ringed in the Transvaal and taken subsequently in Malawi, Rhodesia and Zambia. Judging from *Zambian* evidence, *spoliator* must reach the panhandle of south-eastern Zaire.

Birds return to the austral breeding grounds in November and early December, breeding through to March/early April, after which they and their progeny again disperse. For a full discussion of the complex movement pattern in *Q.quelea* the reader is referred to Ward (1971). As *spoliator* breeds in a region with a good annual rainfall, it is probably not an itinerant breeder to any great extent, as is claimed by Ward for *lathamii* and other races. In connection with the itinerant breeding hypothesis, it is by no means certain that some measure of the putative itinerant breeding may not stem

from human harassment of breeding swarms and the use of explosives and aerial spraying as means of mass destruction and the elimination of nesting concentrations.

*Loxia Lathamii* was described by Sir Andrew Smith from near the present town of Zeerust in the far western Transvaal. The subspecific pattern obtaining in the western Transvaal is still not precisely understood, but birds in nuptial dress, though not yet actually breeding (bills in females cerise) and presumably moving south when obtained, though actual nesters taken later on in the season in the same district, and as late as the end of February on the Elands R. (virtual topotypes of *lathamii*), show the criteria laid down for *lathamii* in my study of 1960. A good Pretoria sample (December, 1951), is also *lathamii* and not *spoliator*. *Q.q.lathamii* is now seen as ranging marginally into the xeric west of the Transvaal, and, of course, to the bushveld regions of the north and east of the province, south of which it is replaced by *spoliator*.

Populations grouped by me in *lathamii* range from western and south-western Angola and northern South-West Africa east to the Transvaal north of *spoliator*, Rhodesia, dry western southern Mozambique and the Luangwa Valley, Zambia. While the racial characters are evident in breeding dress they tend to be rapidly modified by solar bleaching and grass wear, and are much more salient in freshly assumed non-breeding plumage, when the upper-parts are distinctly overlaid with buffy olivaceous, and the streaking over the mantle and scapulars is appreciably yellower (more dead grass coloured). In the wings, the secondaries and tertials are edged with buffy olivaceous rather than off-white, while ventrally the birds are more creamy, the breast usually washed with buff. There is no difference in size.

Judging by some of the larger samples from single localities, it would appear that while both *spoliator* and *lathamii* may occur out of the breeding season in the same general area as one another, the flocks or swarms do not mix to any extent, if at all. The available evidence, albeit inconclusive, suggests that the bulk of *lathamii* populations may spend the non-breeding season to the north of those of non-breeding *spoliator* (? possibly *allohiemy*). Northern non-breeding shift takes elements of *lathamii* into the breeding range of *Q.q.intermedia*. Non-breeding *intermedia* differs from *lathamii* and *spoliator* in being virtually immaculate ventrally but with a deeper buff wash to the whole of the underside. In breeding males, little or no black is normally displayed over the anterior

dorsal surface to the head, though in some the entire forehead may be black, and below the dusky squamation and lateral streaking present in *lathamii* and *spoliator* is lacking and the whole underside is washed with buff or ochraceous. Rose is usually lacking over the head, and when present is distributed medio-ventrally and is dilute. *Q.q.intermedia* is usually synonymized with *Q.q.aethiopica* (Sundevall), 1850: Sennar, but Van Someren (1922) and recently Ward (1971) have argued the case for its recognition, though the diagnostic characters laid down for it remain equivocal. Moreau (1962) treats both *intermedia* and *Q.q.centralis* van Someren, 1921: Lake Edward, Uganda, as synonyms of *aethiopica*, which arrangement is not followed by Ward.

### The subspecies of the *lathamii*-group

#### (a) *Quelea quelea spoliator* Clancey

*Quelea quelea spoliator* Clancey, *Bull.Brit.Orn.Club*, vol. lxxx, 4, 1960, p. 67: near Bergville, Natal.

*Breeding dress*: Males in this plumage exhibit pale buff surfaces over the head and breast (about Chamois, Ridgway, *Color Standards and Color Nomenclature*, 1912, pl. xxx), and have the upper-parts greyer and colder, lacking the strong buffish olivaceous wash present in *lathamii*. Rump and upper tail-coverts distinctly greyer.

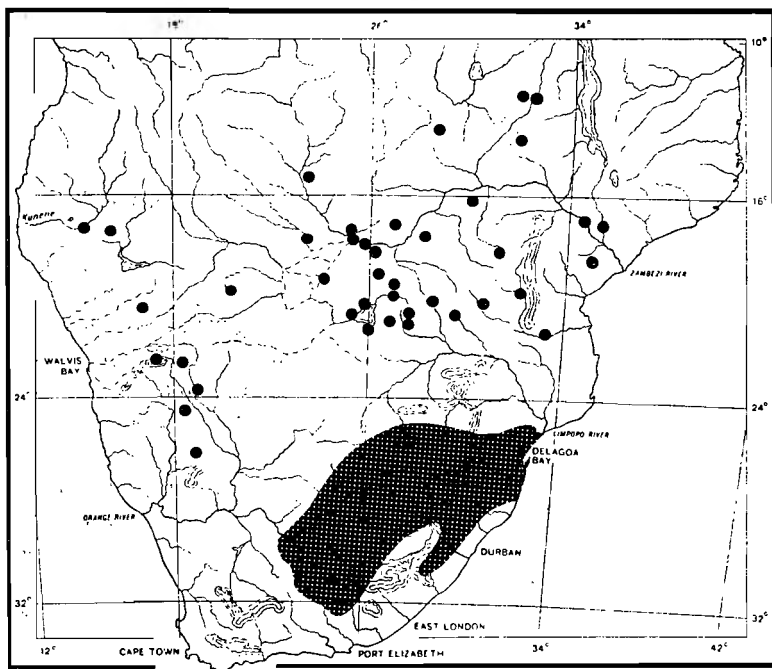
*Non-breeding dress (eclipse male and adult female)*: Head-top, nape, hind and sides of neck much darker and greyer than in *lathamii* (Deep Mouse Gray (pl. li)), and rest of upper-parts colder and greyer, the light edgings to the mantle and scapular feathers pale, dull vinaceous, not light yellowish buff (Isabella colour). Wings and tail darker, the secondaries and tertials edged on the outer vanes with off-white. Below whiter, less buffish tinged over the breast and sides, which surfaces have somewhat darker grey squamation. Similar to *lathamii* in size.

*Measurements*: Wings (flattened) of 10 ♂♂ 65–70.5 (67.8), of 10 ♀♀ 65–68 (66.6) mm.

*Material examined*: 163 (Transvaal, 48; Natal, 26; Orange Free State, 3; Lesotho, 1; Moçambique, 4; Rhodesia, 21; Malawi, 5; Zambia, 13; Botswana, 14; South-West Africa, 28).

*Range*: Breeds locally in the eastern Cape (south to Cradock), Griqualand West (northern Cape), the Orange Free State, lowlands

of Lesotho, the southern Transvaal, Griqualand East (Matatiele, Ongeluks Nek), Upper Natal, northern Zululand, Swaziland, and southern Moçambique south of the lower Limpopo R. In the non-breeding season (April-late October/November) ranges west to South-West Africa, southern Angola, northern Botswana, the Caprivi Strip, Rhodesia, Zambia, southern Moçambique north of the breeding range, and Malawi. Return and departure dates to and from the southern breeding grounds are governed by the timing of the commencement of the main rains, and during droughts or otherwise unfavourable years breeding activity may be delayed and the species absent from many suitable areas where it breeds in optimum seasons.



MAP II

The breeding and non-breeding ranges of *Quelea quelea spoliator* Clancey

Shaded: Breeding range of *Q.q.spoliator*

● : localities of non-breeding visitors identified as *spoliator* on the basis of specimens.

*Remarks:* This race breeds November–March. The main rains break in the breeding range late September, continuing through to the latter parts of April.

In its dark head-top and dorsal neck coloration and greyer upper-parts in non-breeding dress when compared with *Q.q.lathamii*, the characters of the present taxon parallel those of *Q.q.centralis vis-à-vis Q.q.intermedia*. *Spoliator* is a mesic race, breeding in acacia-veld, plantations, reed-beds, etc.

(b) **Quelea quelea lathamii** (Smith)

*Loxia Lathamii* A. Smith, *Rep.Exped.Expl.Centr.Afr.*, 1836, p. 51: near Kurrichaine, i.e., near Zeerust, western Transvaal.

*Breeding dress*: Males with buffy areas to head, neck and underside near to pale Yellow Ocher (pl. xv). In unworn condition the upper-parts exhibit a warm buffish olive overlay.

*Non-breeding dress (eclipse male and adult female)*: Head-top, nape, hind and sides of neck Light Buffish Brown (pl. xxx), and mantle, scapulars, rump and upper tail-coverts boldly streaked with blackish or sepia, the feathers edged Isabella Color (pl. xxx). In wings, edging to outer vanes of secondaries and tertials isabelline. Below creamy white, usually washed across the breast with buff; squamation brownish.

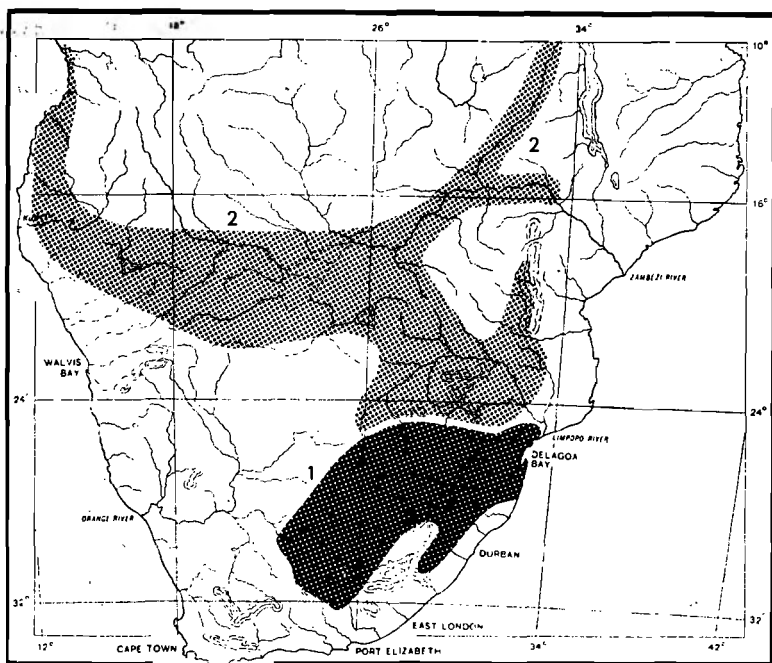
*Measurements*: Wings of 10 ♂♂ 66–70 (67,8), of 10 ♀♀ 65–68 (66,3) mm.

*Material examined*: 247 (Transvaal, 25; Orange Free State and northern Cape, 5; Moçambique, 10; Rhodesia, 108; Malawi, 1; Zambia, 58; Botswana, 8; South-West Africa, 20; Angola, 12).

*Range*: Breeds locally in bushveld in the western, northern and eastern Transvaal, adjacent arid west of Sul do Save, Moçambique, Rhodesia, south, south-east and west of the plateau, and the valley of the Zambesi in the north, east to Tete district, Moçambique, eastern and northern Botswana to the north and east of the Kalahari, the Caprivi Strip, and northern South-West Africa; also south-western and western Angola (north to the Rio Bengo), and in Zambia where mainly along the Zambesi R. and in the valleys of its major affluents, especially the Luangwa Valley (see Map II). Post-breeding movements are perhaps more in the form of nomadism rather than true migration as in *spoliator*, but seasonally ranging well north of its breeding range to reach southern Zaire and extra-limital parts of Angola. Breeds November–March/early April; mainly from January.

*Remarks*: A xeric race, breeding extensively in acacia savanna and in torrid river valleys.





MAP III

The breeding range of the *lathamii*-group of *Quelea quelea* (Linnaeus)

1. *Quelea quelea spoliator* Clancey
2. *Quelea quelea lathamii* (Smith)

Distribution within the limits defined for each race is not of necessity continuous.

#### Polymorphism in males in nuptial dress in races of the *lathamii*-group

Variation exhibited over the head, neck and under-parts by adult males in breeding plumage is extreme but polarises into two broad groups of variants on the basis of the presence or absence of black areas over the anterior head. These two major categories are further divisible into two additional variants or morphs on the presence or absence of a dull rose or vinous wash to the light surfaces of the head, neck and underside, making four categories in all in which males can be grouped. There is some measure of intermediacy between all the categories, many light headed examples even showing shadow dark areas to the anterior head.

Similar morphs occur in all the described subspecies of *Q. quelea*, though their incidence in individual races appears to differ. In both *Q. q. spoliator* and *Q. q. lathamii* the majority of males has the

forehead, face and upper fore-throat black, the posterior surfaces of the head, neck, lower fore-throat and upper breast buffish, usually washed with dull rose. In East African populations (*Q.q. intermedia*) comparable morphs show reduced or no black over the forehead, seldom have a rosy wash to the head, neck and upper breast, this, when present, usually distributed medio-ventrally.

In all populations, morphs without black over the head, but with or without a rosy wash to the buff surfaces = the so-called "russi" variant (*Ploceus russi* Finsch, 1877: West Africa), are relatively sparse. In the sample of breeding *spoliator* 17,4 per cent. were "russi", and in the larger sample of *lathamii* the percentage (19,0 per cent.) was slightly higher. In the sample of breeding male *Q.q. intermedia* the trend appeared to be reversed with "russi" comprising only 6,4 per cent. of the series studied.

TABLE II  
Colour morphs in some races of *Q.quelea*

Morph	N	Percentage of sample
<i>Quelea quelea spoliator</i> Clancey, 1960		
(a) Black forehead, mask and upper fore-throat; buff head and lower fore-throat washed rose	10	43,4
(b) As in (a) but without rosy wash . . . . .	9	39,1
(c) No black on head; head all round and upper breast buff or ochraceous ("russi" var.) . . . . .	1	4,3
(d) As in (c) but with head-top and upper breast washed rose . . . . .	3	13,1
<i>Quelea quelea lathamii</i> (Smith), 1836		
(a) Black forehead, mask and upper fore-throat; buff head and lower fore-throat washed rose	52	52,0
(b) As in (a) but without rosy wash . . . . .	29	29,0
(c) No black on head; head all round and upper breast buff or ochraceous ("russi" var.) . . . . .	5	5,0
(d) As in (c) but with head-top and upper breast washed rose . . . . .	14	14,0
<i>Quelea quelea intermedia</i> (Reichenow), 1886		
(a) Black mask and upper fore-throat (forehead in some); buff head and underside variably tinged rose . . . . .	14	45,1
(b) As in (a) but without rosy wash . . . . .	15	48,4
(d) No black on head; head all round and underside buff, variably washed rose ("russi" var.) . . . . .	2	6,4
<i>Quelea quelea quelea</i> (Linnaeus), 1758		
(b) Black forehead, mask and upper fore-throat; posterior head and underside deep clay colour	3	
(c) No black on head; head all round buff and underside clay colour ("russi" var.) . . . . .	1	
(d) As in (c) but with head-top and underside washed with rose . . . . .	1	

Two specimens from northern Somalia examined, one of which is an adult male in breeding dress, appear to be attributable to *Q.q.aethiopica*. The adult male is of the (b) morph, lacks any black over the anterior surface of the head-top, and the buffy head and ventral surfaces are lighter than in *intermedia*. Nominate *Q.quelea* is again more saturated in the breeding male, has the dorsal streaking finer and more sagittate in form than in other races, and the rump and upper tail-coverts are almost plain buffish. The forehead is broadly black as in the case of the austral forms.