

DURBAN MUSEUM

# Novitates



ISSUED BY THE DURBAN MUSEUM, DURBAN 4001, SOUTH AFRICA

VOL. XI, PART 8

ISSUED 30th OCTOBER, 1976

## MISCELLANEOUS TAXONOMIC NOTES ON AFRICAN BIRDS XLVI

by

P. A. CLANCEY

(Director, Durban Museum, Durban)

### ON THE QUAIL *COTURNIX COTURNIX* (LINNAEUS) IN THE SOUTH AFRICAN SUB-REGION

*Coturnix coturnix* is represented in the South African Sub-Region by a group of summer visitant populations, which breed locally from the south-western Cape, north-east to Natal and Zululand, Lesotho, the Orange Free State, Swaziland and the Transvaal, and by a small resident population present in the highlands along the Rhodesia/Mozambique border. The first-mentioned populations are present on the breeding grounds between September and April, with a few laggards present through to June and July and even August. The wintering grounds of these populations are still largely conjectural but almost certainly lie in south-west and central Africa from northern South West Africa and Angola (Humpata) to the grasslands of southern Zaïre and western Zambia. Fairly numerous records from South West Africa (where the species has been found breeding at Koreib), a few from Huila in south-western Angola, others from western and central Zambia (Liuwa Plain and Kafue Flats, and, probably, Lealui and Lusaka), and two from Kananga (Luluabourg) in Kasai Occidental, Zaïre, testify to the correctness of the tentative hibernal range as outlined above. In the east of southern Africa, birds, presumably from South African breeding

[Price R1,00 nett]

grounds, are recorded from Beira (Haagner) and Inhambane (Peters), in Mozambique, but virtually nothing has been recorded of this quail in central southern Africa between 18° and 32° E. and north of the Tropic of Capricorn, suggesting, especially in view of the relatively large number of individuals involved, that South African birds overfly large tracts of country in course of their movements between the breeding and hibernal ranges. Just how large these populations are is currently uncertain, though the number of pairs must run into six figures, judging by the large bags of birds shot on occasion in very limited areas in the Cape and Natal at the time of the onset of their nidification. At the present time most workers refer to the populations just dealt with as the "African" Quail *Coturnix coturnix africana* Temminck and Schlegel, 1849: Cape Province, South Africa.

In connection with the second group of populations of *C.coturnix* in the South African Sub-Region, it is interesting to note that when Smithers *et al.*, *Check List Birds of Southern Rhodesia*, 1957, p. 49, dealt with this species they found no concrete evidence of its seasonal occurrence or presence in the territory, stating that "no material exists to substantiate the occurrence of this migrant in Southern Rhodesia". However, in the detailed study of the species in Ethiopian Africa reported on by Benson and Irwin, *Arnoldia* *Rhod.*, vol. ii, 13, 1966, pp. 1 - 14, a putative resident population is recorded from localities in the Eastern Highlands of Rhodesia from the Chimanimani Mts., north to Inyanga and Salisbury (p. 13). These latter authors attribute these austral montane grassland resident *C.coturnix* of Rhodesia to *C.c.erlangeri* Zedlitz, 1912: Cunni, near Harar, eastern Ethiopia, which is seen as a result of their work as comprising a chain of isolates, extending from Ethiopia south to Kenya, Uganda, north-eastern Zaïre, southern Tanzania, Malawi and the highlands along the Rhodesia/Mozambique frontier.

In addition to the summer breeding visitant *C.c.africana* and the north-eastern montane grassland resident *C.c.erlangeri* in southern Africa is the vexed question of the status of birds indistinguishable from the Palaearctic migratory *C.c.coturnix* (Linnaeus), 1758: Sweden, as announced by Courtenay-Latimer and Clancey, *Ostrich*, vol. xxxi, 4, 1960, pp. 169 - 172. In this communication, the two authors concerned reported that the collections in both the East London and Durban Museums contained numerous specimens from among their holdings of "africana" which could not be differentiated from European and central Asiatic examples of *C.c.coturnix* (including *C.c.orientalis* Bogdanov, 1884: Siberia). Courtenay-Latimer and Clancey expressed the view that the birds resembling *C.c.coturnix*

were probably of immediate Palaearctic origin, despite the fact that the said race was believed up to that time (1960) to penetrate no further south than the Equator during the course of its non-breeding sojourn in Africa.

In their study of the Quail in Africa, Benson and Irwin, *loc. cit.*, gave consideration to the question of the occurrence of *C.c.coturnix*-like birds in southern Africa, arbitrarily dismissing the findings of Courtenay-Latimer and Clancey, stating in their summary that these latter authors had misidentified specimens of *africana*. Yet reference to Courtenay-Latimer and Clancey's 1960 paper shows that these authors had a series of specimens of *C.c.coturnix* from Germany, Denmark, Spain, Greece, the Balearic Islands, Turkey and Afghanistan before them when they wrote. Furthermore, the two adequate photographs appearing on p. 170 (dorsal aspect) and p. 172 (ventral aspect) of selected specimens indicate quite unequivocally that the said authors experienced no difficulty in discriminating between birds showing the characters generally ascribed to *C.c.africana* and those inseparable from European *C.c.coturnix*.

That the considered findings of Courtenay-Latimer and Clancey on pooled series of South African breeding *C.coturnix* were in some ways linked to earlier observations by other workers on the same populations was completely overlooked by Benson and Irwin, *loc. cit.* Reference to Hartert, *Vög.pal.Fauna*, vol. iii, 1921 - 1922, p. 1941, shows that this expert, while expressing faith in the readiness by which *C.c.africana* could be differentiated from *C.c.coturnix*, qualified it by stating "Since all quails are so highly variable, it is not surprising that specimens (of *africana*) occur from time to time, which are so similar to *C.c.coturnix* that one can hardly distinguish between the two. To regard less typical specimens of *C.c.africana* as hybrids between it and *C.c.coturnix* is a totally groundless theory without any supporting evidence." The final part of this quotation from Hartert presumably alludes to the observations of Ogilvie-Grant, *Cat.Birds Brit.Mus.*, vol. xxii, 1893, pp. 237 - 239, and *Hand-Book to the Game-Birds*, vol. i, 1895, pp. 180 - 184, where this latter author states (1895) "the Migratory Quail (= *C.c.coturnix*) also interbreeds freely with the chestnut-throated form (*C.capensis*=*C.c.africana*) found in South Africa and the islands surrounding the coast (of Africa), and the results are to be seen in many male birds from S. Africa and Southern Europe . . .". On the basis of the characters he used to maintain *C.c.africana*, specimens either agreeing with it or believed to be intermediate between it and typical *C.coturnix* were listed in the *Catalogue*, pp. 238, 239, from as far afield as South

Africa, Madeira, England (Croydon and Cambridgeshire), Gibraltar, Switzerland, Austria, Hungary, Greece and India. From this it is clear that the characters by which Ogilvie-Grant differentiated a southern African race were in the main varietal rather than sub-specific in the modern sense. In dismissing the opinion expressed by Benson and Irwin, *loc.cit.*, that Courtenay-Latimer and Clancey had misidentified examples of *C.c.africana* as *C.c.coturnix*, Clancey, *Durban Mus.Novit.*, vol. vii, 11, 1966, p. 463, states: "Many birds taken in South Africa, including short series taken at the one time, cannot be distinguished on any character from western and central Palaearctic *C.c.coturnix*. It now seems as if birds attributable to the nominate race may breed in South Africa (*vide* Clancey, *Birds of Natal and Zululand*, 1964, p. 118)". This was followed in *Durban Mus.Novit.*, vol. vii, 13, 1966, pp. 626, 627, by a further pronouncement by the same author as follows: "The great bulk of the birds breeding in the Republic of South Africa are now found to be sub-specifically inseparable from *C.c.coturnix*, the whole breeding population complex being hybrid in character." This effectively brought the problem as it exists back to the understanding of it in vogue before Hartert wrote in 1921 - 1922. This question was again dealt with in slightly greater detail in my *Gamebirds of Southern Africa*, 1967, pp. 146 - 151.

Since the status of the forms of *C.coturnix* occurring in the South African Sub-Region was last dealt with in 1967, much additional material has been assembled and preserved by the Durban Museum, and it seems timely to review the situation once again after the lapse of some ten years with a view to finally resolving the taxonomic impasse presented by the finding of *C.c.coturnix*-like birds in southern Africa.

#### VARIATION IN *COTURNIX COTURNIX*

In the Quail males are polymorphic, showing considerable variation in the ground-colour and patterning of the head, chin and upper fore-throat. Otherwise, variation in the species is not palpably extensive, affecting the shape of the throat feathers in non-breeders, levels of colour saturation and the amount of displayed black in the cryptic dorsal plumage and wings in both sexes, the degree of spotting to the breast in females, and in the length of the wing. Currently some eight subspecies are admitted, though the question of the validity of some of the insular forms found in archipelagos off the African mainland is still subject to debate. Peters, *Check-List Birds of the World*, vol. ii, 1934, pp. 92, 93, recognised *C.c.coturnix* (Linnaeus),

1758: Sweden, *C.c.ussuriensis* Bogdanov, 1884: Ussuriland to Lake Baikal, *C.c.japonica* Temminck and Schlegel, 1849: Japan (see below), *C.c.conturbans* Hartert, 1917: San Pedro, Santa Maria, Azores, *C.c.confisa* Hartert, 1917: Ponto do Pargo, Madeira, *C.c.inopinata* Hartert, 1917: São Nicolão, Cape Verde Islands, *C.c.erlangeri* Zedlitz, 1912: Cunni, near Harar, eastern Ethiopia, and *C.c.africana* Temminck and Schlegel, 1849: Cape Province, South Africa. Vaurie, *Birds Palearctic Fauna*, vol. ii, Non Passeriformes, 1965, pp. 290 - 293, questioned the validity of *inopinata*, merged *conturbans* with *confisa*, gave *japonica* specific recognition, and sank *ussuriensis* into the synonymy of the last named. Owing to the nature of the problems involved in resolving the subspecific systematics of the present species, I do not feel qualified to express an opinion as to the soundness of these latter proposals, though it is questionable if sufficient recent material was available to Vaurie in the case of two or more of the insular subspecies. Recently, succinct comments on Quail subspecies have appeared in von Blotzheim *et al.*, *Handb. Vög.Mitteleurop.*, vol. v, 1973, pp. 284, 285, these based on the literature and not on an assessment of specially assembled material.

Apropos the head-colour and pattern polymorphism in male *C.coturnix*, sixty-one ♂♂ from a series of one hundred and five examples of *C.c."africana"* from South Africa group into three broad categories, each morph in turn showing a relatively wide range of individual variation, as shown below in Table I. Von Blotzheim *et al.*, *loc.cit.*, quoting Wurga (1931), give comparable data derived from a large series of Hungarian *C.c.coturnix*.

TABLE I

Morphs in series of 61 ♂♂ of *C.coturnix*  
from South Africa

- |  |                  |
|--|------------------|
| (a) Face and throat dull reddish cinnamon, or more ochraceous or even whitish, with throat patch either absent or only faintly adumbrated . . . . .              | 21, 31 per cent. |
| (b) Face and lateral throat largely reddish cinnamon, without or with variable admixture of white; dark anchor-shaped patch on throat well-defined . . . . .     | 27,87 per cent.  |
| (c) As in (b) but face and lateral throat whiter; dark anchor-shaped patch on throat well-defined, and margined posteriorly by a variable bar of white . . . . . | 50,82 per cent.  |

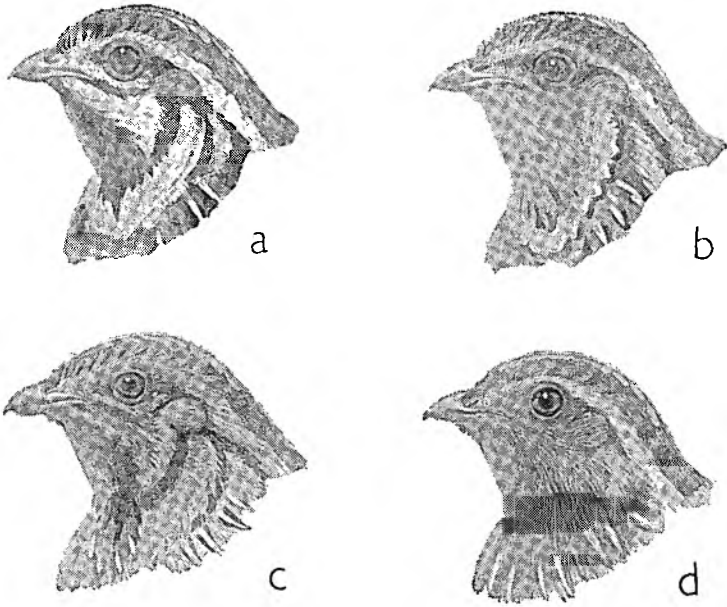


FIG. 1

Heads of adult breeding ♂♂ Quail *Coturnix coturnix* (Linnaeus) specimens from Natal to show the range of polymorphism.

- a. ♂ ad. Durban Bay, Natal. 17 November, 1961 (morph c).
- b. ♂ ad. Elandskop, Natal, 17 November, 1963 (morph a).
- c. ♂ ad. Bisley, Pietermaritzburg, Natal. 3 November, 1971 (morph b).
- d. ♂ ad. Elandskop, Natal. 12 November, 1961 (morph a).

In so far as southern African birds are concerned, *C.c.africana*, proposed in the combination *Coturnix vulgaris africana* by Temminck and Schlegel, in Schlegel's *Fauna Jap.*, Aves, 1849, p. 103 (in text), and as generally interpreted ever since, applies to males of morph (a), with the face, chin and fore-throat cinnamon, with little or no indication of a dark anchor-shaped mark over the throat. Males showing the characters attributed to *africana* occur naturally in populations of uncertain racial ascription in Madagascar, the Mascarene Islands and the Comoros, and also in named races in southern and eastern Africa, north to Ethiopia, the island groups off West and North-West Africa, as well as parts of the range of the nominate subspecies in southern Europe and elsewhere. As will be appreciated from the data presented in Table I, it is estimated that less than a quarter of the males occurring in the South African *C.c. "africana"* populations actually show the main criteria generally used to discriminate them from other individual populations or groups of populations. Hartert's diagnosis of the form in his *Vög. pal. Fauna*

seems to have been very largely based on examples of *C.c.erlangeri*, relying heavily on the relative redness of the head and throat surfaces in males, and he probably lacked an adequate representation of the populations breeding south of the Limpopo R. in Africa.

As cautioned by Benson and Irwin, *loc.cit.*, the head colour and patterning in males cannot be used to arrange Quail populations into satisfactory races. Even in the case of wing-length, the degree of overlap between populations is such that this parameter, too, is unsatisfactory for taxonomic purposes. Only levels of plumage saturation and the amount of black displayed over the dorsal surfaces can be utilized with any measure of confidence. Nearly twenty-five years ago, Mackworth-Praed and Grant, *Birds Eastern and North Eastern Africa*, vol. i, 1952, pp. 264, 265, arrived at precisely similar conclusions in their treatment of East and north-eastern African elements.

#### TAXONOMICALLY SIGNIFICANT VARIATION IN SOUTHERN AFRICA

Critical study of a series of 112 specimens of *C.coturnix* from the South African Sub-Region reveals that on the basis of the two variables of use in arranging the populations of this quail into generally acceptable subspecies, three distinct groups of facies can be differentiated as follows:

Facies —

- (i) Lateral coronal streaks about sepia, heavily scaled with umber or redder; mesial coronal streak cream; ground to hind neck Tawny-Olive or dull Sayal Brown (pl. xxix); rest of dorsum variegated pale Tawny-Olive, black and light grey, the lanceolate shaft-streaking cream. Wings with coverts and tertials distinctly ochraceous. Wings of 12 ♂♂ 101 - 108 (103,8), SD 1,99, of 12 ♀♀ 99 - 111 (105,1), SD 3,35mm.
- (ii) As in f. (i), but lateral coronal streaks almost black basally, the scaling darker; central crown streak whiter; ground to hind neck more vinaceous, less yellowish, being about cinnamon; rest of dorsum with more extensive black areas to variegated pattern, the lanceolate shaft-streaking heavier and purer white, the individual streaks more broadly edged laterally with black, this well-marked over the hind neck and mantle. Black areas over lower back and rump particularly well developed. Wings less ochraceous and somewhat darker and greyer over coverts and tertials. Wings of 12 ♂♂ 100 - 106,5 (103,4), SD 2,34, of 12 ♀♀ 102 - 111 (105,9), SD 2,96mm.

- (iii) Not particularly well-differentiated from f. (ii). Generally a little darker, more saturated and richer; hind neck with ground-colour on whole redder, and black areas over dorsum still more extensive in well-marked examples, with the lanceolate shaft-streaking yellower and more sharply contrasted against the immediate ground. Wings darker, more brownish, ochraceous, the barring on the flights redder, and the black sub-terminal barring to the tertials more fully developed. Males averaging more extensively reddish below, this better marked in females, which are more vinaceous ventrally than in f. (ii) in series, the breast and lateral ventral streaking heavier. Bill often smaller. Wings of 7 ♂♂ 100 - 107 (102,0), SD 2,58, 2 ♀♀ 100,5, 103mm.

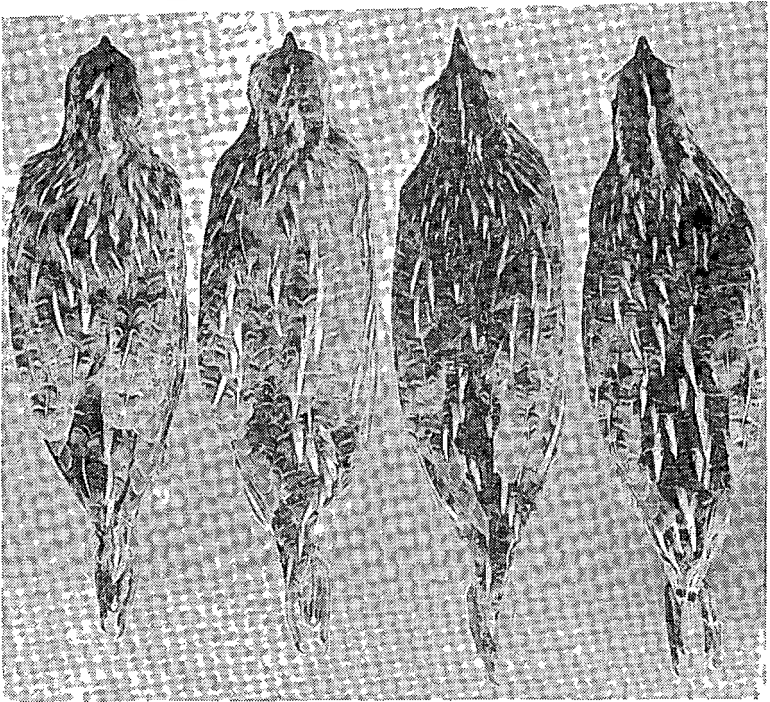


FIG. 2

Dorsal view of four breeding ♂♂ *Coturnix coturnix* (Linnaeus) from Natal in the Durban Museum collection, showing the two colour facies present in the population.

*Left pair:* facies i, resembling *C.c.coturnix* of the western and central Palaearctic.

*Right pair:* facies ii, corresponding to the form *C.c."africana" auctorum*.

*Photo:* W. S. Yerbury



As f. (iii) refers largely to the resident montane grassland population occurring in the highlands along the Rhodesia/Mozambique border, and correctly referred to *C.c.erlangeri*, it presents little difficulty, being satisfactorily differentiated from *C.c.coturnix* on the much darker and richer upper-parts and wings, with larger black areas, clearer and brighter lanceolate shaft-streaking and strong ochraceous-rusty suffusion in both sexes, the females more pinkish or vinaceous-cinnamon washed below, with heavier breast and lateral streaking. Separation of some Natal specimens of f. (ii) from *C.c.erlangeri* is on occasion a question of fine judgment, while two Natal (Durban) females in the Durban Museum collection are just as erythristic ventrally and rusty tinged above and over the wings as the more typical examples of *erlangeri*, though they lack the pronounced black sub-terminal barring to the tertials, which is well-developed in the said race.

While f. (iii) (*C.c.erlangeri*) presents minimal difficulty, the same is not true of f. (i) and f. (ii), which jointly comprise the South African breeding populations and the taxon *C.c.africana auctorum*. Benson and Irwin considered *africana* a relatively homogeneous subspecies, supposedly intermediate in colour between the very richly coloured *erlangeri* on the one hand and the paler, more fulvous, and less boldly patterned *C.c.coturnix* on the other. While this supposition is true enough of f. (ii), the upper-parts distinctly darker and colder, less fulvous tinged, with a greater measure of underlying black than in f. (i), it certainly does not obtain in the case of the specimens grouped in the last named facies. Of the South African series studied (106 skins), forty-seven, or 44.34 per cent., group into f. (ii), showing the characters laid down for *africana* by Benson and Irwin.

To turn to the fifty-nine specimens grouped in f. (i) — 55.66 per cent. of the series — these collectively cannot be differentiated from examples of the nominate subspecies from western European breeding grounds. Several of them are every bit as pale and fulvous tinged as two dated Austrian and Hungarian specimens shot in the 1890s before Mr. Irwin when he drafted the 1966 *Arnoldia* Rhod., communication. Others are again paler than recent material from the west of the range of the nominate subspecies in the Palaearctic. Nor are they consistently smaller than Palaearctic birds, as can be confirmed by reference to the measurements of 24 ♂♂♀♀ of f. (i) in the Durban Museum collection given above. It was on the basis of other material of the present facies that Courtenay-Latimer and Clancey, *loc.cit.*, suggested that elements of *C.c.coturnix* reached South Africa, either as migrants or else by having been in contact with parties of *C.c.*

"*africana*" in the tropical African wintering grounds of the latter. However, as clearly indicated by material collected since 1960, birds resembling the nominate subspecies breed in South Africa alongside the darker birds grouped in f. (ii) and showing the characters of *africana* as understood by Benson and Irwin.

While the unreasonably restrictive conservation measures currently in force in Natal have not allowed me to investigate the matter in depth for the purposes of this report, samples in both the East London and Durban Museums and in the National Museum of Rhodesia collections suggest that birds of the light (f. (i)) and darker (f. (ii)) facies in Natal and the Cape are to a greater or lesser degree reproductively isolated from one another. As shown in the paper by Courtenay-Latimer and Clancey, 13 ♂♂♀♀ from the East London district in the Cape taken on 12 December, 1958, are all dark and referable to f. (ii). In the case of a series from Elandskop, Natal, shot over two seasons in November 1961 and 1963, all but one are of f. (i), in this resembling *C.c.coturnix*, while in the case of a short series from Durban Bay head, Natal, taken on 17 November, 1961, all are of f. (ii). It was largely as a result of this finding that the suggestion was first made that European migrants reached South Africa during the course of their non-breeding sojourn in Ethiopian Africa.

As has been demonstrated above, over half the Quail breeding in South Africa in the middle of the Twentieth Century are either identical to or not to be taxonomically differentiated from nominate *C.coturnix*. The composition of the populations of the same region in colonial times — when most European-based collections of South African birds were formed — conceivably differed markedly to that obtaining today, with a higher incidence of cinnamon-headed male morphs and a preponderance of dark back (f. (ii)) birds. A comparison carried out between a series shot a hundred years ago and one obtained at the present time would probably produce rewarding results. The innumerable conflicting statements in the literature viewed against the concrete material evidence before me suggest *prima facie* that a change in the composition of the said populations has in all probability taken place over the past century or so.

It is frequently claimed that South African Quail are smaller sized than those of the Palaearctic. While this is true in so far as the observed wing-length ranges and means go, the differences are relatively slight. Forty-eight carefully measured adults from South Africa, the wings flattened and straightened against a buffer-ended electro-plated ruler, give the following:

12 ♂♂ of f. (i)	101 - 108 (103,8), SD 1,99, SE 0,58mm.
12 ♀♀	99 - 111 (105, 1), SD 3,35, SE 0,97
12 ♂♂ of f. (ii)	100 - 106,5 (103,4), SD 2,34, SE 0,68
12 ♀♀	102 - 111 (105,9), SD 2,96, SE 0,86

Benson and Irwin, *loc.cit.*, using pooled measurements, give for *C.c. "africana"*:

89 ♂♂ wings	96 - 111 (101,7mm)
48 ♀♀	98 - 109 (103,3mm)

(N.B. Specimens with wings as low as 96 are almost certainly retaining juvenal remiges, as the normal wing-length spectrum for *C. coturnix* populations is 6,5 - 9 and standard deviations *c.* 2,0 - 3,0 mm).

The means given by these authors are as far as I can determine too low for South African birds.

In the case of Palaearctic *C.c.coturnix*, Hartert, *Vög.pal.Fauna*, vol. iii, 1921 - 1922, pp. 1938 - 1942, gives wings for ♂♂ as 104 - 115, most 108 - 111, Dement'ev and Gladkov, *Birds of the Soviet Union*, Eng. trans., vol. iv, 1967, p. 157, give for 64 ♂♂ 99 - 114 (104,9), 50 ♀♀ 101 - 112 (106,5), Witherby, *Handbook of British Birds*, vol. v. 1941, p. 253, for 12 ♂♂ from western Europe 110 - 112 (rarely to 115). Female said to be as in the male. Meinertzhagen, *Birds of Arabia*, 1954, p. 568, wings of ♂♀ 99 - 109. Benson and Irwin, *loc.cit.*, give for 99 ♂♂ wings 103 - 115 (108,8), of 75 ♀♀ 103 - 118 (110,4mm)). (N.B. Readings of 118 are probably based on specimens with shot-shattered wings or on ones which have had the wing "stripped" in preparation. The means given by Benson and Irwin also appear inordinately high in relation to their findings on *C.c. "africana"*!). My own mensural data in the case of Palaearctic breeders agree more or less precisely with those of the senior Russian authors mentioned above.

All that emerges from these considerations is that Palaearctic *C.c.coturnix* range some two or three mm longer in the wing than South African breeders, and that while the means are significantly different they are not taxonomically useful. Furthermore, measurements of Eurasian birds more or less completely subsume those derived from South African material, negating the use of wing-length as a subspecific discriminant function.

CONCLUSIONS ON THE INDIGENOUS ETHIOPIAN  
AFRICAN POPULATIONS

As appreciated for a long time and recently highlighted by the work of Courtenay-Latimer and Clancey (1960), the populations of *C. coturnix* breeding in South Africa, i.e., southern Africa south of the Limpopo R., and wintering largely in the western and central tropical grassland savannas of the continent, show, quite apart from the polymorphism in males alone, a wide spectrum of colour variation. Despite the considered views of our colleagues, Messrs. Benson and Irwin (1966), a re-examination of the issue, using new material obtained since 1960, confirms that the populations under consideration are not of uniform facies and that the characters enunciated by them as those of *C.c.africana* are only shown by some 44,5 per cent. of the adequate sample before me. The balance of 55,5 per cent. of examples falls easily into the range of variation in *C.c.coturnix*, many being as pale as the palest examples of the nominate subspecies. As most of the *C.c.coturnix*-like birds to hand were breeding when shot they are clearly not of immediate Palaearctic origin, supporting the view that Palaearctic migrants probably do not normally cross the Equator during their sojourn in Africa. Moreau, *Palaearctic—African Bird Migration Systems*, 1972, pp. 190 - 192, concluded that Palaearctic *C.c.coturnix* winter typically in the very arid belt along the southern edge of the Sahara, apparently not being dependent on surface water or dew. Benson and Irwin felt that under present conditions there could be no question of contact between South African breeders on their wintering grounds and Palaearctic migrants, despite the taking of *africana*-type specimens as far north as Kananga (Luluabourg), Zaïre. However, as the hibernal ranges of many Palaearctic migrants tend to shift in sympathy with immediate climatic and environmental factors, it cannot be categorically asserted that at no time in the immediate past have elements of *C.c.“africana”* and *C.c.coturnix* come in contact with one another in the tropical grasslands of Ethiopian Africa.

The clear influence of *C.c.coturnix* in the present composition of the South African populations cannot be disputed, and I believe the conclusion reached when I wrote in 1966 that “it seems that *C.c.africana* is a highly unstable race of hybrid origin, formed at some recent date as a result of a colonisation by immigrants of *C.c.coturnix* of the austral African grasslands already then tenanted in the breeding season by *C.c.erlangeri*” is in all probability indisputably correct. However, in my later communication in *Durban Mus.Novit.*, vol. vii, 13, 1966, pp. 626, 627, when, in order to preserve the name *africana*,

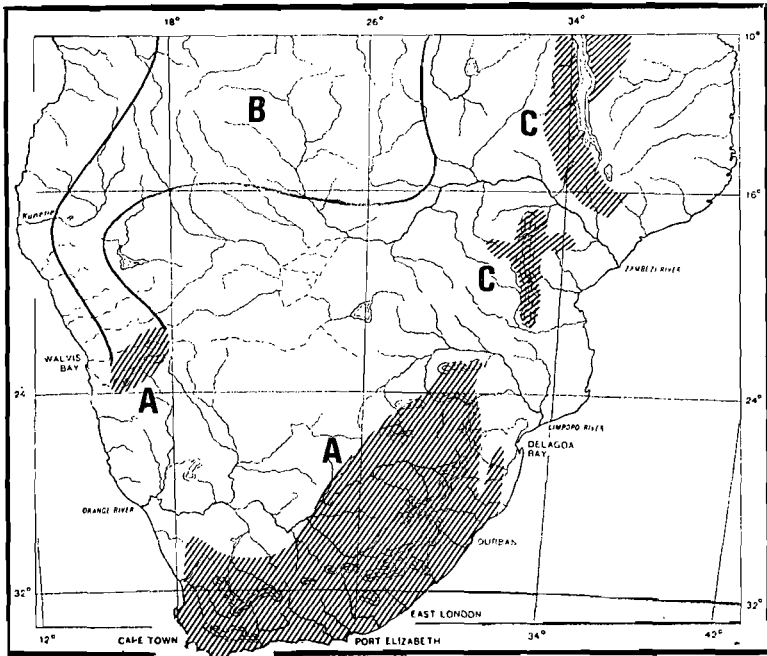
I transferred it to the valid *C.c.erlangeri* (which name it replaced), I erred; it should have been sunk as a synonym of *C.c.coturnix* and *erlangeri* retained.

In the light of these conclusions, the two Quail subspecies breeding in mainland Ethiopian Africa will stand as:

(a) ***Coturnix coturnix coturnix*** (Linnaeus), 1758: Sweden

*Synonym: Coturnix vulgaris africana* Temminck and Schlegel, 1849.

In Ethiopian Africa breeds in the Cape, Natal and Zululand, Lesotho, Swaziland, southern Mozambique (Lebombo Range), and the highveld of the Transvaal. Occasionally South West Africa. Most winter in grassland savannas of northern South West Africa, Angola, western Zambia and southern Zaïre. Bulk present on breeding grounds September - April, but some present through to July and even August.



MAP I

Sketch-map showing the breeding ranges of two races of the Quail *Coturnix coturnix* in southern Africa and part of the tentative non-breeding range of one of them.

- A. Breeding range of *C.c.coturnix* (*C.c.africana* auct.) in southern Africa.
- B. Tentative non-breeding distribution of populations from range A.
- C. Breeding range of *C.c.erlangeri* in southern Africa.

- (b) **Coturnix coturnix erlangeri** Zedlitz, 1912: Cunni, near Harar, eastern Ethiopia.

Resident in montane grasslands from eastern Rhodesia and adjacent highland Mozambique (including Mt. Gorongosa), to Malawi, southern Tanzania, eastern Zaïre, Uganda, Kenya, probably the mountains of the southern Sudan, and Ethiopia.

The influence of this richly coloured race is discernible in Natal material.

The weak and unsatisfactory local races proposed by Hartert in 1917 from island groups off West and North-West Africa should be re-assessed in the light of the decisions here taken on the classification of the South African Sub-Region populations. These, plus the South African breeders and Indian Ocean insular isolates, are apparently relict populations resulting from a second incursion of suitable regions to the south-west and far south of the main Palae-arctic range, some of which had already been successfully colonised during an earlier expansionary phase. The curiously disjunct and peripheral disposition of and poorly developed subspeciation in these austral isolates give *a priori* credence to such a view.