1. SYSTEMATIC AND DISTRIBUTIONAL OBSERVATIONS ON SOME SOUTH AFRICAN BIRD FORMS

Study of collections made by the Durban Museum during the course of the past seven years indicates the desirability of making adjustments to our current taxonomic and distributional treatment of several South African forms of birds. In order to make these findings available to workers as speedily as possible, I have grouped them together in the present composite note.

(a) *Francolinus natalensis thamnobium* Clancey


Two adult ♀♂ Natal Francolin collected on the banks of the Vaal River at Riverton (rail), north of Kimberley, northern Cape Province, in August, 1957, are referable to this paler and greyer race, which is now known to extend from the eastern Transvaal lowveld and adjacent Sul do Save, southern Portuguese East Africa, eastwards through Southern Rhodesia and the thorn country of the
While mentioning Stresemann’s revision in the *Journal für Ornithologie* for 1925, Macdonald has chosen for some unknown reason to eschew the work of later authors, including the present writer, which shows conclusively that topotypical *L. n. phoenicopterus* and the birds of Damaraland are not racially distinguishable. Material collected this year in South-West Africa shows that no appreciable difference exists between the populations of Damaraland and those of the northern Cape Province. 4 ♂♂, 2 ♀♀ from near Windhoek, and 2 ♂♂, 1 ♀ from Okahandja, when compared in perfect even light with 3 ♂♂, 1 ♀ from Prieska, 1 ♂ from Kenhardt, and 1 ♂, 3 ♀♀ from Riverton (rail), north of Kimberley (all collected since 1957) reveal that only two specimens of the topotypical populations of *L. n. phoenicopterus* can be distinguished by greener reflections from Damaraland *L. n. ‘bispecularis’*.

Study of samples of other South African populations of this glossy starling shows that birds with greenish and bluish reflections occur naturally in the same population in many parts of the range of *L. n. phoenicopterus*, and birds every bit as blue as the bluest from Damaraland can be found in coastal Natal, Swaziland, eastern Transvaal and Sul do Save, southern Portuguese East Africa. The bluest bird in our extensive collection is a single ♂ from Manhiça, in Sul do Save!

There is no statistically significant difference in size between topotypical *L. n. phoenicopterus* and the Damaraland populations: wings of 6 Damaraland ♂♂ 130-137.5, 3 ♀♀ 126-132, 5 topotypical *L. n. phoenicopterus* ♂♂ 129-137.5, 4 ♀♀ 125.5-129 mm.

I conclude that it is not possible to recognise a putatively bluer race of this glossy starling from Damaraland under the name *L. n. bispecularis*, as advocated by Macdonald, and believe that the decision of the S.A.O.S. List Committee (*vide* Report, *Ostrich*, vol. xxix, 1, 1958, p. 43) to recognise only two races from southern Africa (*L. n. phoenicopterus* and *L. n. culminator* (Clancey and Hollday), 1951: Addo Bush, near Port Elizabeth, eastern Cape Province) is indisputably correct.

2. FIVE NEW RACES OF SOUTHERN AFRICAN BIRDS

New collections and revisionary work on polytypic species of South African birds continue to reveal hitherto unrecognised races for which names are required. The formal descriptions of five recently determined subspecies are given below:
Pterocles namaqua furva, subsp.nov.


Diagnosis: ♂, adult. Differs from P.n.namaqua Gmelin, 1789: Namaqua country, in its darker general colouration. On upper-parts, darker and browner on head-top and mantle, the feathers of the back, scapulars and wing-coverts with larger and more numerous silvery apices. More clearly distinguishable on the ventral surface: throat and face darker (about Clay Color (vide Ridgway, Color Standards and Color Nomenclature, 1912, pl. xxix) as against Antimony Yellow (pl. xv)); breast darker (about Drab (pl. xlvi) as against Avellaneous (pl. xli)); lower band of pectoral cincture darker, and lower breast, sides of the body and abdominal surface much darker and more heavily washed with fuscous, especially over the centre of the belly. ♀, adult. Rather more strongly yellowish tinged and darker above, and more yellowish cinnamon, less vinaceous buff, over the lower throat and upper breast; the rest of the ventral surface also more yellowish. Similar in size in both sexes.

Material: 20 (Cape Province: Kersfontein, Berg R., 1 ♂, 1 ♀; Touws River., 1 ♂; De Bosch, 1 ♀; Calvinia, 1 ♀; Perdegravlei, Fraserburg, 1 ♂; Garies, Little Namaqualand, 1 ♂, 1 ♀; Ooghrabies, 1 ♀; Brandvlei, 2 ♂♂, 1 ♀; 10 m. N.E. of Van Wyk's Vlei, 2 ♂♂; near Upington, 1 ♂; Obyvenhout's Drift, Orange R., 1 ♂; Hillmore, Beaufort West, 1 ♂, 1 ♀; Riverton (rail), Kimberley, 1 ♂. Orange Free State: Vrededorp, 1 ♂). P.n.furva ≈ P.n.namaqua (Kliprand, 50 m. N. of Vanrhynsdorp, western Cape, 1 ♂, 1 ♀).

Measurements of the Type: Wing (flattened) 174, culmen from feathers 11, tail 110 mm.

Range: The south-western and western Karroo districts of the Cape Province, eastwards to the eastern Cape and western Orange Free State. Intergrades to the north of its stated range with the nominate race.

Remarks: de Schauensee, Proceedings of the Academy of Natural Sciences of Philadelphia, vol. lxxxiii, 1931, p. 441, discussed the geographical variation of this sandgrouse on the basis of five specimens in the collection of the Philadelphia Academy of Natural Sciences: Zak River, Cape Province (3), Kalkveldt, South-West Africa (1) and Lake Ngami, Bechuanaland Protectorate (1). He recognised two races: a pale northern race described under the name P.n.ngami de Schauensee, 1931: 25 miles north-west of Lake
Ngami, northern Bechuanaland Protectorate, and a putatively darker (nominotypical) form in the south of the species' range. Material recently assembled from the collections of the South African, East London and Durban Museums shows that at least two races of *P. namaqua* should be admitted in our formal arrangement of the populations, as demonstrated in the first instance by de Schauensee. Odd specimens from central Damaraland with the throat and face darker (near the Clay Color of *P. n. furva*), the lower breast washed with vinaceous grey, and the upper-parts more vinaceous tinged, suggest the existence of a third rather well-marked race to the north or east of the range of *P. n. namaqua*. Unfortunately, we have no material in the Durban Museum collection to ascertain if de Schauensee's *P. n. ngami* is attributable to these greyer bellied and pinker backed birds, nor sufficient reliable material and information to define their actual breeding range.
The limited number of breeding examples (most of the specimens studied were taken at watering points and not on the breeding grounds), coupled with the known nomadism of the species, especially when drought compels populations to travel vast distances to water, makes the working out of the salient colour variations a task of no little difficulty. It is believed that the full picture of geographical variation and its ecological background will not be adequately understood until such time as the species is accorded detailed study in the field, backed with comprehensive samples of meticulously prepared skins from the entire breeding range.

Macdonald, *Contr. Orn. W. South Africa*, 1957, p. 71, found the species to be very constant in colour and pattern throughout its range, but the specimens discussed by him were all from within the established distribution of nominate *P. namaqua*. Mrs. B. P. Hall informs me, *in litt.*, that no racial divisions are maintainable on the basis of the material in the collection of the British Museum (Nat.Hist.), London. I cannot accept this finding because the marked colour differences in the freshly collected material available in South African museums compel one to admit the existence of two or even three races of *P. namaqua*. I see no reason to believe that individual populations are normally variable or that the species is polymorphic.

The name of the new sandgrouse is taken from the Latin *furvus*, dusky, dark, obscure, in allusion to the much darker under surface of the new race.

**Calandrella conirostris transiens**, subsp.nov.


*Diagnosis:* Somewhat intermediate between *C.c.conirostris* (Sundevall), 1850: north of the Drakensberg, south-eastern Transvaal, and *C.c.barlowi* (Roberts), 1942: 20 miles west of Upington, northern Cape, but well differentiated from either. Separable from *C.c.conirostris* on account of the lighter coloured, less saturated reddish upper-parts, but more clearly distinguishable ventrally, having the lower throat, breast abdomen, flanks, crissum and under tail-coverts distinctly paler (about Pinkish Buff as against the darker Pinkish Cinnamon *(vide* Ridgway, *tom. cit.*, pl. xxix) of the nominate race). Spotting on lower throat and breast finer and sparser. Similar in size.
From *C. c. barlowi* distinguishable by its much darker and more boldly striated upper-parts (in *C. c. barlowi* the upper-parts are Pinkish Cinnamon narrowly streaked with a dark drab), and by the fact that the lower breast, abdomen and crissum are concolorous with the upper breast, body-sides and flanks, and are not distinctly paler as in *C. c. barlowi*. Spotting on lower throat and breast about the same. Similar in size.

**Material:** 16 (all from type-locality).

**Measurements of the Type:** Wing 79, culmen 12.5, tarsus 18.5, tail 44 mm.

**Range:** The grasslands of the eastern and northern districts of the northern Cape Province, adjacent eastern Cape (south to about Cradock and Tarkastad in localized pockets where suitable conditions occur), western Orange Free State, western and northern Transvaal and southern Bechuanaland Protectorate.

**Remarks:** The range of the saturated *C. c. conirostris* appears to be centred on the high interior of Natal (where the form has recently been found to be quite common and breeding in the Newcastle district), eastern Orange Free State, western Swaziland and the southern highveld of the Transvaal. Until recently *C. c. barlowi* was known only from the Upington paratypes in the Transvaal Museum collection obtained by Roberts in 1941. In 1957 members of the staff of the East London Museum obtained two examples at a watering point in the Kalahari Gemsbok National Park, while on 4 and 5 June, 1959, I found it in abundance on open grassy expanses at Kalkrand, in Great Namaqualand. A series of specimens in freshly moulted dress was obtained at this latter locality. Two other races of the Pink-billed Lark are recognised, these being *C. c. damarensis* (Roberts), 1922: Ondonga, Ovamboland, and *C. c. crypta* Irwin, 1957: Mumpswe, 7 miles north of Makarikari Salt Pan, northeastern Bechuanaland Protectorate. Both *C. c. damarensis* and *C. c. crypta* range somewhat smaller in size than *C. c. conirostris, C. c. barlowi* and *C. c. transiens*, in addition to being more greyish on the upper-parts.

**Calandrella starki gregaria**, subsp. nov.

**Type:** ♂, adult. Bladgrond Noord, Great Bushmanland, northwestern Cape Province, South Africa. 8 November, 1956. Collected by M. O. E. Baddeley. In the collection of the Durban Museum.

**Diagnosis:** In newly moulted plumage readily separable from *C. s. starki* Shelley, 1902: Wilson's Fountain (probably the present
farm Wilsonfontein), near Otjimbingwe, Swakop River, western Damaraland, by the redder, less greyish, upper-parts. The feathers of the mantle have the fringes close to Vinaceous-Cinnamon (vide Ridgway, *tom. cit.*, pl. xxix) as against Pinkish Buff (same pl.) in *C.s.starki*. The fringes of the wing-feathers are also distinctly more vinaceous tinged. Not separable on the ventral surface, and similar in size. Differences also discernible in breeding plumage, *C.s.gregaria* appearing less strongly streaked on a pale ground above.

**Material:** *C.s.gregaria*, 20 (Kakamas, 1♂; Kakamas-Kenhardt road, 2♂♂, 5♀♀; Loogkolk, 1♂; Kenhardt-Putzonderwater, 1♂, 1♀; 7 miles N.E. of Namies 1♂; Bladgrond Noord 1♂, 1♀; Bladgrond-Kakamas road, 2♂♂; Springbok-Goodhouse, 1♂, 1♀, 1♂♂). *C.s.starki*, 32 (Orange R. 5 miles N.W. of Prieska, 6♂♂ (small migrant flock); 40 miles S.W. of Prieska, 1♂ (large migrant flocks), 1♂; Kalahari Gemsbok National Park, 6♂♂; Noeniput, 100 m. N. of Upington, 1♂, 1♀; Witdraai, Molopo-Nossob confluence, 1♂; Swartmodder, 60 miles N.W. of Upington, 1♀; Kalkrand, Great Namaqualand, 6♂♂, 7♀♀; Brunt Narongo, Damaraland, 1♀; Christiana, Transvaal, 1♂, 1♀).

**Measurements of the Type:** Wing 79, culmen 15, tarsus 19, tail 49 mm.

**Range:** Known at present from the southern extremity of the species' range, *i.e.*, from Little Namaqualand and Bushmanland, eastwards to the Kenhardt district. The breeding populations of parts of southern Great Namaqualand may be referable to the new taxon.

**Remarks:** The distribution of *C.s.gregaria* is difficult to define with the limited freshly moulted material currently available.

The main series of *C.s.starki* used for this study was obtained in June of this year at Kalkrand, in Great Namaqualand, where the species was particularly numerous. This series of *C.s.starki* is composed of specimens in which the moult of the body plumage has just been completed, while the feathers of the wings and tails are in all instances slightly abraded. The *Type of C.s.gregaria*, though taken in November, has already almost completed the moult of most of the body plumage. Abrasion and the bird's habit of dusting in staining red sands in some districts makes it advisable to use only freshly moulted material in a study of geographical variation in this small lark, though a series of breeding *C.s.starki* from the Kalahari Gemsbok National Park is noticeably paler than one of *C.s.gregaria* in similar condition.

*Tchagra minuta remotas* subsp. nov.


*Diagnosis:* These austral populations are usually associated with the race described from northern Angola, namely *T.m. anchietae* (Bocage), 1870: Pungo Andongo, Cuanza Norte, Angola, but actually differ significantly therefrom in the paler upper-parts and diagnostic caudal characters. Compared with topotypical *T.m. anchietae* lighter coloured, less saturated and uniform, on the hind neck, mantle and rump—centres of mantle feathers about Tawny (*vide* Ridgway, *tom. cit.*, pl. xv) as against Hazel or Hazel/Chestnut-Brown (pl. xiv). The reduction in the uniformity of the dorsal surface is occasioned by the exposure of whitish in the feathers of the hind-neck and the pronounced pale fringing to those of the mantle. Upper tail-coverts more broadly tipped with grey than in *T.m. anchietae*. On the under-parts not saliently different, but somewhat less washed with Cinnamon-Buff (pl. xxix) on the sides of the body and flanks. Tail less intensely black, the rectrices with greynish fringes to the outer webs and with rather less distinctly defined whitish apices, the black areas on the rectrices segregated from the whitish tips by grey penumbrae, which are lacking in *T.m. anchietae*, thus resulting in a less sharply contrasted pattern to the ventral surface of the tail. Averaging slightly smaller than topotypical *T.m. anchietae*, but not so small as *T.m. reichenowi*.

*Material:* 8. (Southern Rhodesia: Vumba Highlands, 1 ♂, 2 ♀; Muzinga R., Holdenby, Inyanga, 1 ♂; Honde R., Inyanga, 1 ♂; Pungwe R., Holdenby, Inyanga, 1 ♂; Rocklands, Melsetter, 1 ♀; Nyasaland: Ncheu-Neno boundary, 1 ♀).

*Measurements of the Type:* Wing 76, culmen 24, tarsus 28, tail 80.5 mm.

*Range:* The eastern highlands of Southern Rhodesia (probably not above 5,000 ft. a.s.l., *vide* Smithers *et alia*, *Check List of the Birds of Southern Rhodesia*, 1957, p. 134) and immediately adjacent southern Portuguese East Africa, northwards to southern Nyasaland (Ncheu district).
**Remarks:** The grey penumbralae separating the black areas from the whitish apices of the rectrices are evident even in abraded specimens of *T.m.remota*.

A series of seven specimens of Angola *T.m.anchietae* has kindly been made available for this study by Dr. A. L. Rand and Mr. Melvyn A. Traylor, of the Chicago Natural History Museum, U.S.A. The Angola specimens are from the following localities: Mombolo (3), Mt. Moco (2), Mt. Soque (1), Golungo Alto (1). For the loan of comparative material I am grateful to the Directors of the Natal Museum, Pietermaritzburg, the Transvaal Museum, Pretoria (through Mr. O. P. M. Prozesky), and the National Museum of Southern Rhodesia, Bulawayo (through Miss Mary Paterson).

![Diagram of Tchagra Minuta](image)

**TCHAGRA MINUTA** (Hartlaub)

*Left series of rectrices of two races of Tchagra minuta.*

a. *Tchagra minuta remota* Clancey

b. *Tchagra minuta anchietae* (Bocage)

Note grey penumbralae segregating black areas from whitish apices in *T.m.remota.*

Neumann, *Journal für Ornithologie*, 1900, p. 120, differentiated the populations of East Africa from those of Angola and all southern localities on fine points of colour and size, and called them *Telephonus reichenowi* Neumann. *T.m.reichenowi* is not generally recognised by workers, though Chapin, *Birds of the Belgian Congo*, part iv, 1954, p. 26, admits it as a race distinguishable from *T.m. anchietae* by its shorter wing-length: 68-73 as against 72-80 mm. Sclater, in Jackson *Birds of Kenya Colony and the Uganda Protectorate*, vol. iii, 1938, p. 1230, gives the wings of coastal Kenya Colony *T.minuta* as 65-70 mm. Two specimens available to me from the northern half of Nyasaland (♂ ad. Chinteche; ♀ sub-ad.
Songwe R., Nyasaland-Tanganyika Territory border), which are
*T.m.reichenowi*, a race I find to be distinguishable from *T.m.
anchietae* in the whiter hind-neck, paler upper-parts and smaller
size, have wings 72, 72.5 mm. The ventral tail pattern of *T.m.
reichenowi* is as in *T.m.anchietae*. Its precise range is not readily
definable at the present time, but appears to be from the littoral
of Kenya Colony (Lamu and Mombasa), southwards through most
of Tanganyika Territory to northern Nyasaland and northern
Portuguese East Africa. To the east of its stated range it is replaced
by *T.m.minuta* and *T.m.anchietae*, while to the southward occurs
*T.m.remota*.

The wings of the seven Angola *T.m.anchietae* before me measure
76.5, 77, 78, 78, 78.5, 78.5, 79 mm.—all distinctly larger than
the measurements given for East African *T.m.reichenowi* by Chapin
and Sclater, while the wings of my *T.m.remota* specimens are also
greater as follows: 73, 73.5, 74, 75, 75.5, 76, 76, 76.5 mm. It will
be noted that in both the Angola series of *T.m.anchietae* and the
paratypical series of *T.m.remota*, the wing-length ranges are extreme-
ly circumscribed (2.5 and 3.5 mm.), which suggest that this variable
is of cardinal importance in distinguishing the geographical races,
contrary to the views expressed by several other workers.

The extremely well-characterized nominate race is coloured
on the upper-parts like *T.m.reichenowi* and *T.m.remota*, but unlike
these two races and *T.m.anchietae* has the sides of the back streaked
with black. The ventral tail-pattern is as in *T.m.anchietae* and *T.m.
reichenowi*, while in size it is like the former race: wings of 2 ♂♂,
1 ♀ 76, 78.5, 80.5 mm.

*T.m.remota* is recorded as breeding in October and November.

The name is from the Latin *remotus*, sequestered, removed, dis-
tant, in allusion to the isolated nature of the main population of
the new subspecies here described.

**Lamprotornis australis degener**, subs.nov.

*Type:* ♂, adult. Farm Malamala, Newington, eastern Transvaal
lowveld, South Africa. Altitude c. 900 ft. a.s.l. 3 August, 1958.
Durban Museum Expedition. In the collection of the Durban Mu-
seum.

*Diagnosis:* Smaller in all its critical measurements than *L.a.
australis* (Smith), 1836: near Zeerust, western Transvaal (*vide*
10 ♂♂ 162-182 (172.1), 6 ♀♀ 150-167 (158.5), as against 18 ♂♂ 185-
195 (188.7), 9 ♀ 172-177 (173.5) mm. in *L.a.australis*. Metallic sheen of upper-parts bluer; hind neck and rump with strong overlay of purple and distinctly less blue than in *L.a.australis*, while the rump feathers often exhibit a pronounced cupreous admixture, which is quite lacking in the nominative race. On under-parts bluer over the throat, breast and sides of the body, and with more extensively distributed violet and purple reflections on the lower breast, abdomen and flanks. Wings and tail with more purple, the latter with the transverse barring more copious and clearly defined.

**Material:** 18 (Waterberg, Nylstroom, north-western Transvaal, 2 ♂♂; Newington, eastern Transvaal, 10 ♂♂, 3 ♀♀; Nsoko and Gollel, Swaziland, 1 ♂, 2 ♀♀).

**Measurements of the Type:** Wing 163.5, culmen from base 25, tarsus 46, tail 145 mm.

**Range:** North-western, northern and eastern Transvaal, western Sul do Save, southern Portuguese East Africa, eastern Swaziland and extreme northern Zululand (rare). Perhaps to parts of southern Southern Rhodesia.

**Remarks:** Smith, *Illustrations of the Zoology of South Africa*, Aves, pl. 47, 1840 (text), in describing *Lamprotornis Burchelli* Smith—a substitute name for the earlier *Megalopterus australis* Smith, 1836—gives the length of the wing as 7 inches and 6 lines—about 190 mm., while the accompanying illustration shows the distinctive greenish reflections of the nominotypical race. A specimen from Kurrichane, which is claimed to be the *Type* of *M.australis*, is still in the collection of the British Museum (Nat.Hist.), London, the wing of which measures 187 mm. An unsexed specimen in the British Museum from Kroonstad, Orange Free State, which is obviously a male from its measurements, has the wing 185 mm. long, showing that the nominate race ranges also into the Orange Free State. Kurrichane (Zeerust) and Kroonstad must be about the limits of range of *L.a.australis* in the east, because two males from the Waterberg (Nylstroom district) in the Transvaal Museum, with wings 174 and 175 mm. are the smaller and bluer *L.a.degner*. An old Ayres skin in the British Museum from the Limpopo River is also *L.a.degner* (♀, wing 167 mm.).

The range of *L.a.australis* is from the western Orange Free State, south-western Transvaal, northern Cape and Bechuanaland Protectorate to South-West Africa and southern Angola.
The material of the nominate race, of which the critical size information has been embodied in the above diagnosis, is from South-West Africa, including the Caprivi Strip, the Bechuanaland Protectorate, northern Cape Province, South-Western Transvaal and the Orange Free State.

I am grateful to Mr. O. P. M. Prozesky, Ornithologist of Transvaal Museum, Pretoria, and Miss M. Courtenay-Latimer, Director of the East London Museum, for the loan of material and the supplying of mensural date. Mrs. B. P. Hall kindly measured the specimens in the British Museum (Nat.Hist.), and Prof. Dr. G. Niethammer the South-West African specimens in the collection of the Museum Alexander Koenig, Bonn, Western Germany. To both these workers I tender my thanks for the assistance rendered.

The name is from the Latin degener, degenerate, in allusion to the reduced physical proportions of the new race.