

FORMS OF THE RED-CAP LARK IN
SOUTHERN AFRICA

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(With 1 Text-figure)

THE Red-cap Lark, *Tephrocorys cinerea* (Gmelin) is widely distributed in southern Africa. It shows a good deal of variation in general colour, particularly of the upper parts. In the latest revision Grant & Praed (1939, p. 136) regarded such variation as polymorphic rather than polytypic, and consequently recognized only one geographical race in southern Africa. They gave a summary of other opinions. The critical point seems to be whether or not *Alauda spleniata* of Strickland, a very pale form of limited distribution, should be regarded as a race of the more widely distributed *Tephrocorys cinerea*, or as a separate species. Evidence which can be used in support of either conclusion is the fact that Hoesch collected both light and dark forms at Ondonga. There are, however, no data indicating that they were the progeny of the same interbreeding population, or that they lived together without interbreeding, or indeed that both forms were actually taken together. Any conclusion, therefore, must be tentative until more data become available. Although material is scanty I have formed the impression, from an examination of just over one hundred specimens and a limited study of birds in the field, that there is a broad pattern of geographical colour variation in southern Africa, and that the very pale *Alauda spleniata* is a variation brought about by peculiar environmental conditions.

The original description of the species was based on a drawing sent to Buffon from the Cape of Good Hope. Latham saw a specimen which fitted the description in the Leverian collection and stated that the plumage above was ash-coloured, a characteristic which obviously influenced Gmelin in giving the bird the name *cinerea*. The point is rather important, for the specimens I have examined from the Cape Flats appear to be slightly greyer, tending towards drab-brown rather than fawn-brown, than specimens from other localities. A certain amount of this may be due to abrasion and even fading, for most of the specimens are rather worn and old, but it is a point worth noting, for greying of the plumage in Cape populations is a characteristic which is found in several lark species, for example, the Long-bill, *Certhilauda curvirostris*, and the Karroo Lark, *C. albescens* (see Macdonald, 1952*a, b*). Localities in the Cape area in which grey birds have been taken are: Cape Town (Andersson, 1866; Butler, 1874; unknown, 1865), Durban Road (Rudd, 1903), Malmesbury (Vincent, 1930), British Kaffraria (Barrett, 1877).

Beyond the Cape area the general colour of the upper parts is slightly more fawn or sandy brown. This colour is found in an Andersson specimen collected at the Elephant (Oliphants) River and in specimens from localities northwards along the coast through Little Namaqualand and into Great Namaqualand, as far as Aus. North-east from Cape Town, birds from Deelfontein in eastern Cape Province and Kuruman in Bechuanaland are practically indistinguishable from birds from Klipfontein, near Springbok. From Central Cape Province this colour form extends into the western Orange Free State as far north as the Vredefort and Potchefstroom Districts, where there appears to be a good deal of intergradation

with darker eastern and northern forms. In the fawn group, birds taken along the western desert regions, from about Port Nolloth to Aus, seem to be lightest, but they are not sufficiently distinct to be separated. The group is without a name, and one of the palest specimens, taken in the Witputs area, on the west coast just north of the Orange River, has been selected as type of a new race.

North of Aus, around Walvis Bay and Swakopmund, this sandy-brown form is replaced by one which is much paler. Specimens match the type of *Alauda spleniata*, whose precise locality is not known.

In the south, around Port Elizabeth, there is the first evidence of a darker eastern form. It continues north into Natal and the Transvaal. In the northern

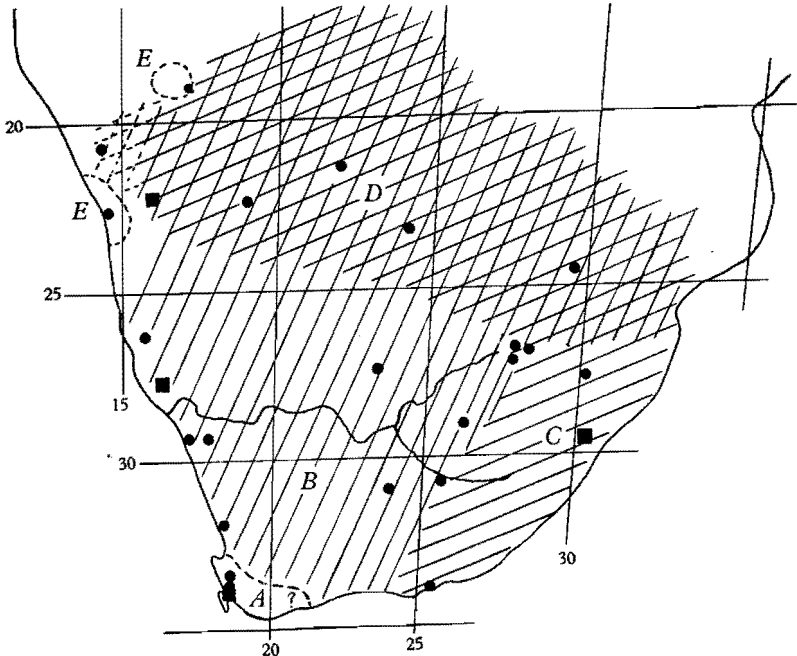


Fig. 1. Races of *Tephrocorys cinerea* in southern Africa. (A) *cinerea*; (B) *witputzi*; (C) *nivei*; (D) *anderssoni*; (E) *spleniata*. ■ Type locality.

Transvaal, at Pietersburg for example, it is replaced by an even darker bird, whose upper parts are predominantly brownish black. This form is found right across the Kalahari Desert, being represented by specimens from Kuke and Ghanzi, and into South-west Africa, for specimens from Gobabis and Ondonga, the latter at the east side of the Etosha Pan, are very similar in colour to birds from the northern Transvaal. Its farthest limit to the west seems to be at Otjimbingwe, except for a single specimen from near the Brandberg Mts, north of Swakopmund, which belongs to the dark phase, though it is rather more dark grey-brown than brownish black. As already mentioned, Hoesch found very pale birds as well as dark birds at Ondonga. The Ondonga pale birds are closely matched by pale specimens from the coast near Swakopmund.

The pattern of variation seems to be therefore one of slight graded changes following a roughly circular distribution. Where the darkest form meets the lightest form in Damaraland there is an apparent overlap where two relatively

small patches of very much paler birds lie on each side of the darkest form (see map). One readily associates this kind of pattern with similar patterns of variation and distribution used by Mayr (1942, p. 180) to illustrate speciation when the extremes of a variable species come together and do not interbreed. This, indeed, may be the true interpretation of the picture of variation presented by the Red-cap Lark, but I think there is another which is more acceptable. The Red-cap is a cryptic species, and the close proximity of very different though quite suitable habitats might give rise to distinctive races. Mayr (1942, p. 86) also quotes examples of this kind of phenomenon, especially among lark species. In northern South-west Africa the whitish soils of the limestone and chalk pans of the Karstveld do in fact lie close to much darker soils whose vegetation also is quite different. The whitish soils have given rise to pale races in a number of species; for example, we found whitish Spike-heel Larks, *Certhilauda albofasciata*, in chalk flats near Kamanjab in the Karstveld which were quite different to the rufous-buff specimens taken on the more richly coloured sands of weathered granite. The presence of these chalky soils therefore may explain the occurrence of pale Red-caps in the Etosha Pan area. It would be interesting to know if both types of soils occur close together at Ondonga where Hoesch collected both pale and dark birds. The presence of birds of a similar pale tone in the Swakopmund area is associated with weathered gypsum. The Namib gypsum veld extends as a fairly narrow belt from the Kuiseb River north to about Cape Cross. In the glare of the sun and against a deep blue sky the weathered rubble and sand seem to be almost as white as snow and are strikingly different to the richly coloured sands found inland, at Otjimbingwe, for example, and south of the Kuiseb River. It is my opinion therefore that the pale birds of the Swakopmund and Etosha Pan areas are colour variations induced in a cryptic species by peculiar environmental conditions. There is no significant dimensional difference between the pale and dark birds, and although Roberts says that he found a difference in their habits I still feel that keeping them together in the same species presents a better taxonomic picture.

It is not known where Andersson obtained his very pale bird to which Strickland gave the name *Alauda spleniata*. He spent much more time in the Swakopmund area than he did in the Karstveld, and it seems quite reasonable to designate Walvis Bay as the type locality. The matter is relatively unimportant unless it is found desirable to give different names to the two pale-coloured groups. In the specimens of both which I have examined I can find no reason for doing so.

The Red-cap Lark in South Africa therefore can be divided into the following geographical races:

(A) *Tephrocorys cinerea cinerea* (Gmelin)

Alauda cinerea Gmelin, *Syst. Nat.* 1, pt. 2, 1789 (798): Cape Town.

CHARACTERISTICS. General colour of upper parts drab brown.

DISTRIBUTION. Cape Flats, north of Saldanha Bay and east to about George.

(B) *Tephrocorys cinerea witputzi*, new race

CHARACTERISTICS. General colour of upper parts fawn brown.

DISTRIBUTION. From the Oliphants River north to Great Namaqualand, east to Bechuanaland and western Orange Free State and central Cape Provinces.

TYPE. An adult male from Witputs, Great Namaqualand, lat. 27° 35' S., long. 16° 42' E.; alt. 4000 ft. Collected by the British Museum South-west Africa Expedition (1949-50), on 25 January 1950. Register number 1950.50.1095. Wing 95, tail 62, bill 14 mm.. Iris brownish olive, legs brownish flesh, bill pinkish horn, darker at tip.

REMARKS. The type is one of a series of 4 ♂ and 3 ♀ obtained on 25–26 January 1950. Specimens are in fresh plumage, moult is nearly complete, and they were taken from fairly large flocks found in very thin scrub at the edge of the desert.

(C) *Tephrocorys cinerea niveni*, new race

CHARACTERISTICS. Darker than the previous race. General colour of the upper parts about light sepia-brown, or a shade greyer, or less chromatic, than snuff-brown. Cape and breast patches are correspondingly darker.

DISTRIBUTION. Eastern Cape Province from Port Elizabeth, north-east to Natal.

TYPE. An adult male from Gezabuzo, near Pietermaritzburg, Natal. Collected by Jack Vincent on 23 June 1929. Register number 1933.7.14.233. Wing 97, tail 64, bill 15 mm. Iris greyish olive; legs greyish brown; bill black, white at base.

REMARKS. The type was found on a hill in open rocky veld. The race is named after Mrs C. R. Niven of Amanzi, near Port Elizabeth, an enthusiastic leader of ornithology in South Africa.

(D) *Tephrocorys cinerea anderssoni* (Tristram)

Megalophoneus anderssoni Tristram, *Ibis*, 1869 (434): Otjimbingwe.

CHARACTERISTICS. Darkest race. General colour of upper parts sayal-brown and brownish black with the latter colour predominating, except on crown.

DISTRIBUTION. Transvaal, through Bechuanaland Protectorate to South-west Africa, at least as far as Ondonga and Otjimbingwe.

REMARKS. A specimen from near the Brandberg Mts in the Omaruru District suggests that populations in that area may be greyer.

Through the kindness of Mr R. Wagstaffe of the Liverpool Museum, I have been able to examine Tristram's type of *anderssoni* taken at Otjimbingwe. There is another specimen in the National Collection also taken by Andersson at the same place. Both are in moult and showing most of their fresh plumage. The type is a slight shade paler than the other specimen. Because of the fresh state of the plumage they are showing rather less of the brownish black colour, which is more evident in worn specimens. I am fairly satisfied, however, that the name *anderssoni* can be applied to specimens from within the range of distribution given above.

(E) *Tephrocorys cinerea spleniata* (Strickland)

Alauda spleniata Strickland in Jardine's *Contr. Orn.* 1852 (p. 152): Damaraland (probably near Walvis Bay).

CHARACTERISTICS. palest race. General colour of upper parts very pale fawn—rather like the colour sometimes described as avellaneous.

DISTRIBUTION. The Etosha Pan area of Ovampoland and vicinity of Walvis Bay and Swakopmund, probably as far north as Cape Cross.

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