ANNALS OF THE SOUTH AFRICAN MUSEUM
ANNALE VAN DIE SUID-AFRIKAANSE MUSEUM

Volume 53 Band
September 1968 September
Part 1 Deel

A CHECK LIST OF THE LAND AND FRESH WATER BIRDS OF THE WESTERN CAPE PROVINCE

By

J. M. WINTERBOTTOM

Cape Town Kaapstad

The ANNALS OF THE SOUTH AFRICAN MUSEUM

are issued in parts at irregular intervals as material becomes available

Obtainable from the South African Museum, P.O. Box 61, Cape Town
(Cash with order, post free)

Die ANNALE VAN DIE SUID-AFRIKAANSE MUSEUM

word uitgegee in dele op ongereelde tye na beskikbaarheid van stof

Verkrygbaar van die Suid-Afrikaanse Museum, Posbus 61, Kaapstad
(Kontant met bestelling, posvry)

OUT OF PRINT/UIT DRUK

1, 2(1, 3, 5, 7–8), 3(1–2, 5, t.–p.i.), 5(2, 5, 7–9), 6(1, t.–p.i.), 7(1, 3), 8, 9(1–2), 10(1–3), 11(1–2, 7, t.–p.i.), 21, 24(2), 27, 31(1–3), 38, 44(4).

Price of this part/Prys van hierdie deel

R9.50

Printed in South Africa by
The Rustica Press, Pty., Ltd.
Court Road, Wynberg, Cape

In Suid-Afrika gedruk deur
Die Rustica-pers, Edms., Bpk.
Courtweg, Wynberg, Kaap

ANNALS OF THE
SOUTH AFRICAN MUSEUM

VOLUME 53

ANNALS

OF THE

SOUTH AFRICAN MUSEUM

VOLUME 53

PRINTED FOR THE
TRUSTEES OF THE SOUTH AFRICAN MUSEUM
1968

LIST OF CONTENTS

The Trustees of the South African Museum acknowledge the receipt of a grant from the C.S.I.R. towards the costs of publication of this monograph.

A CHECK LIST OF THE LAND AND FRESH WATER BIRDS OF THE WESTERN CAPE PROVINCE

By

J. M. Winterbottom

Percy FitzPatrick Institute of African Ornithology

&

South African Museum, Cape Town

(With 5 plates and 44 maps)

[*MS. received* 10 *August*, 1965]

Contents

Ann. S. Afr. Mus. **53** (1), 1968: 1–276, 5 pls.

Introduction

The area with which this check list deals is bounded on the east by the eastern boundaries of the magisterial districts of Mossel Bay, Oudtshoorn, Prince Albert, Beaufort West, Victoria West, Richmond, De Aar and Philipstown; on the north by the Orange River; and on the west and south by the sea (map 1). The estimated area is about 110,000 sq. miles; and it lies entirely between 28 and 25°S. and 17 and 25°E.

After the pioneer labours of Le Vaillant, Andrew Smith and the Verreaux brothers, the western Cape was curiously neglected by ornithologists and the only publications of importance before the Second World War are those of Sharpe (1904) on the collections made by Grant and Seimund at Deelfontein, in the Richmond District; by Sclater (1911–12) on the collections made by Grant in Little Namaqualand; and by H. L. Hare (1915) on the birds of Philipstown. Subsequently, the western fringe of the area was covered by J. D. Macdonald (1957); but the main Karoo has remained virtually undocumented. There is, however, a list of the birds south and west of the Olifants and Breede rivers, edited by the writer for the Cape Bird Club 1956 (revised edition 1963)

The area immediately east of the southern part of that considered here is covered by the *Check list of the birds of the eastern Cape Province*, 1958, compiled by J. M. Paterson for the Eastern Cape Wild Birds Society; while to the north, the present area slightly overlaps that covered in the astonishing *tour de force* of Hewitt (1931). Other adjoining areas more or less adequately covered are South West Africa (Hoesch & Niethammer, 1940) and the Orange Free State (Van der Plaat, 1961).

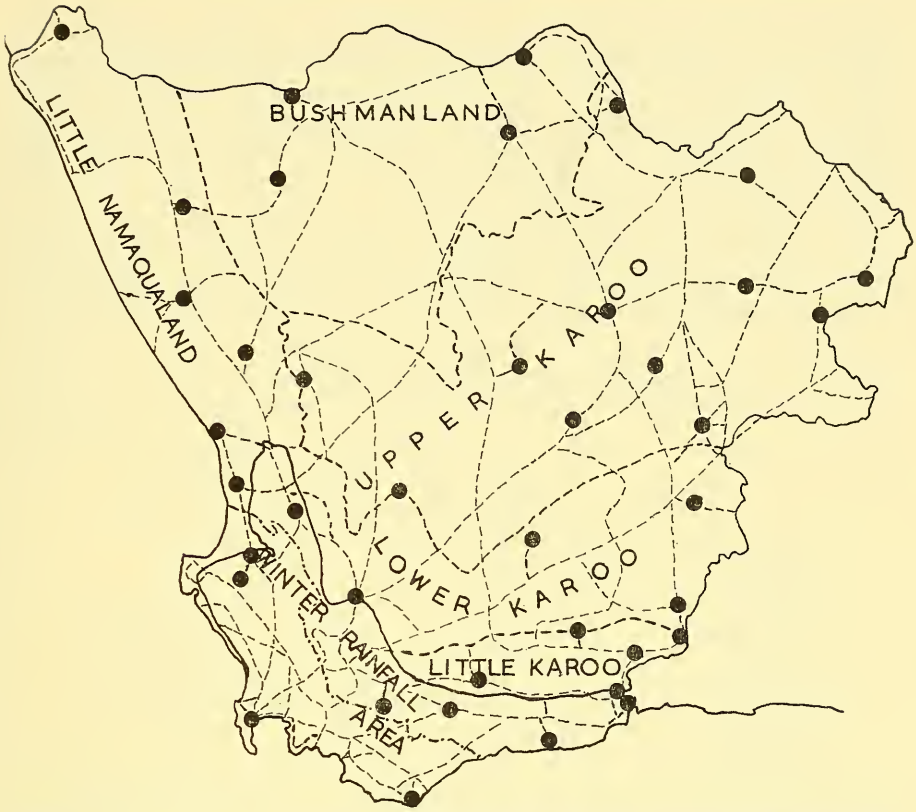
The birds listed here are classified in 60 families, 207 genera, 435 species and 511 forms (i.e. species and subspecies). The biggest families, in genera, species and forms are set out in table 1.

Table 1

GENERA, SPECIES AND FORMS IN DOMINANT FAMILIES IN WESTERN CAPE

Family	Genera	Species	Forms
Accipitridae	16	31	34
Sylviidae	11	26	34
Ploceidae	13	23	27
Scolopacidae	7	20	20
Turdidae	9	17	27
Anatidae	10	17	17
Fringillidae	4	15	23
Alaudidae	6	14	39
Ardeidae	6	14	14
Charadriidae	3	12	12

It will be noted that, of these 'dominant' families, five are passerine and five non-passerine; and that the numbers of Charadriidae and Scolopacidae



Map 1. Western Cape, showing geographical divisions and author's routes and collecting stations.

are largely, and of Sylviidae somewhat, swollen by the inclusion of non-breeding Palaearctic migrants.

The largest genera (seven or more species and/or ten or more forms) are set out in table 2.

Table 2

SPECIES AND FORMS IN DOMINANT GENERA IN WESTERN CAPE

Genus	Family	Species	Forms
Serinus	Fringillidae	10	17
Cisticola	Sylviidae	7	10
Anas	Anatidae	7	7
Charadrius	Charadriidae	7	7
Certhilauda	Alaudidae	3	18

The Alaudidae are usually considered one of the most primitive (and therefore, by inference, oldest) families of the Oscines. It is therefore particularly interesting to note that, while they are comparatively undifferentiated at the generic and specific levels, they show great plasticity at the subspecific level.

In this they are strikingly contrasted with such a genuinely old family (i.e. known to be so from palaeontological evidence) as the Anatidae, whose seventeen species fall into ten genera but which show no subspecific modification at all within our limits; and the Ardeidae, whose fourteen species, in six genera, likewise show no subspecific variation. The point has been more fully discussed elsewhere (Winterbottom, 1962*c*).

It might be maintained that the area here considered is not typical for climatic or other reasons of the Ethiopian Region as a whole. At the species level, and omitting Palaearctic migrants, the dominant passerine families* of the Ethiopian Region are set out in table 3. It will be seen that, compared

TABLE 3

SPECIES IN DOMINANT FAMILIES OF ETHIOPIAN BIRDS

Family	Species		% Ethiopian species in western Cape
	Ethiopian Region	Western Cape	
Ploceidae	192	22	11
Sylviidae	154	23	15
Turdidae	95	16	17
Muscicapidae	87	23	26
Nectariniidae	71	6	8
Laniidae	59	8	14
Alaudidae	58	14	24
Pycnonotidae	52	4	8
Sturnidae	45	6	13
Fringillidae	42	15	36

with the Ethiopian Region as a whole, the western Cape is particularly characterized by the high percentage of species of the families Fringillidae, Muscicapidae and Alaudidae which penetrate into its limits; and the low percentage of species of the families Nectariniidae and Pycnonotidae which it contains. Of these families, the Nectariniidae and Pycnonotidae are essentially tropical and the Fringillidae, though numerous in the tropics, are the most prolific of all families in the Palaearctic and may therefore be regarded as temperate. The Muscicapidae, on the other hand, are largely tropical (only thirteen species in the Palaearctic). The Alaudidae are essentially a family of desert and open country birds, and the other great centre of abundance for them in the Ethiopian Region lies along the borders of the Sahara and Somaliland deserts. Broadly speaking, however, the western Cape is sufficiently like the rest of the Ethiopian Region for conclusions based on its avifauna to be valid; and the differences are chiefly due to its temperate climate. It is believed that most dominant bird families originated in the tropics (Darlington, 1959; Winterbottom, 1961*g*), though Iablokoff-Khnzorian (1961) has argued for the zone of contact between subtropical forest and arid country as the major centre of evolution in insects.

* For the purpose of this discussion, the warblers, thrushes and flycatchers are each given family rank.

Keast (1961) divides the breeding land and fresh-water birds of Australia into three categories, Sedentary species, South–North migrants and Nomadic species. It is by no means easy to fit all our western Cape species in these categories for two reasons: (i) a number of them fall into different categories in different parts of their range, as with the Dabchick *Podiceps ruficollis* and probably the Red-capped Lark *Calandrella cinerea*, which are sedentary in the south but nomadic on the Karoo; or into two categories at once, as with the European Bee-eater *Merops apiaster*, which is a breeding summer visitor and a non-breeding visitor from the Palaearctic, and the Southern Pochard *Netta erythrophthalma*, which is a sedentary species and a non-breeding visitor from the north in Africa (Middlemiss, 1955; Winterbottom, 1964*e*): and (ii) the status of a number of the Karoo species is uncertain, particularly in the case of suspected nomads. Nevertheless, an attempt is made here to classify the species into six categories, as in table 4.

TABLE 4

NUMBERS OF SPECIES IN WESTERN CAPE BY STATUS

Status	No. of species	% of whole
Sedentary species	259	64
Breeding summer visitors	22	5
Nomadic species	15	4
Non-breeding Palaearctic migrants	40	10
Non-breeding Ethiopian migrants	6	1
Casuals and strays	62	25

District lists of species reveal a range of from 284 to 96 species. This variation is partly due to the thoroughness of the coverage, partly to the size of the district and partly to the ecological variety in the habitats available in each. The present totals, in which the three Peninsula districts of Cape Town, Wynberg and Simonstown have been grouped as 'Peninsula' and the two districts of Stellenbosch and Somerset West as 'Hottentots-Holland', is as follows:

Peninsula	284	Worcester	194	Tulbagh	147
Bredasdorp	247	Vanrhynsdorp	176	Richmond	137
Hottentots-Holland	246	Hopetown	174	Laingsburg	133
Swellendam	242	Robertson	172	De Aar	130
Mossel Bay	225	Bellville	169	Williston	130
Philipstown	218	Ceres	169	Ladismith	126
Hopefield	216	Prince Albert	169	Calitzdorp	122
Piketberg	216	Riversdale	168	Kenhardt	121
Oudtshoorn	214	Calvinia	163	Wellington	120
Namaqualand	210	Montagu	160	Fraserburg	112
Caledon	209	Gordonia	159	Prieska	111
Clanwilliam	207	Paarl	158	Sutherland	111
Beaufort West	201	Victoria West	157	Britstown	96
Malmesbury	194	Carnarvon	150		

It is an interesting point that, within the area of the Cape Bird Club (i.e. west and south of the Olifants and Breede rivers), the districts with lowest totals of birds fall into a belt across the centre of the area from east to west (i.e. Robertson–Malmesbury), while those for the area here covered as a whole fall into a belt across the middle from north to south (Kenhardt, Prieska, Williston, Fraserburg, Britstown, Sutherland and Ladismith). How far this represents a reality, however, and how far it is due to the tendency to explore the more distant areas before the intermediate ones is uncertain.

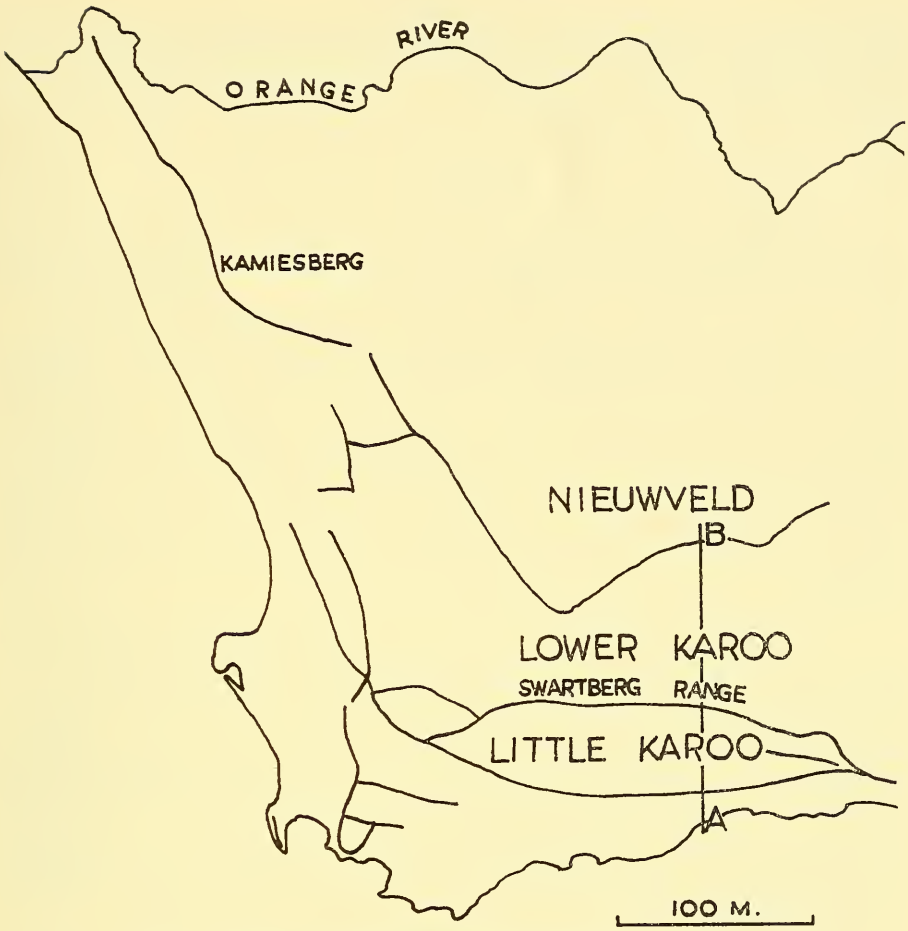
Topography

The fairly narrow coastal strip of lowland is divided from the interior plateau, which lies mostly between 2,000 and 3,000 ft. above sea-level, by an escarpment; or, in the south and south-west, by a series of escarpments (map 2). The complicated mountain ranges of the south are responsible for two enclaves of arid country in the otherwise well-watered coastal area. These are the Breede River valley, between Worcester and Bonnievale, and the Little Karoo, between Montagu and the eastern boundary of our area. The escarpment is lower and less well-marked in the north. The highest peak in the Richtersveld, the Kuboosberg, is only 4,484 ft. high; Vogelklip, south of Springbok, is 4,315 ft.; Ezelskop, in the Kamiesberg, however, reaches 5,474 ft. But many of the southern peaks exceed 6,000 ft. and the Matroosberg in the Hex River Mountains and two peaks in the Swartberg range, 7,000 ft.

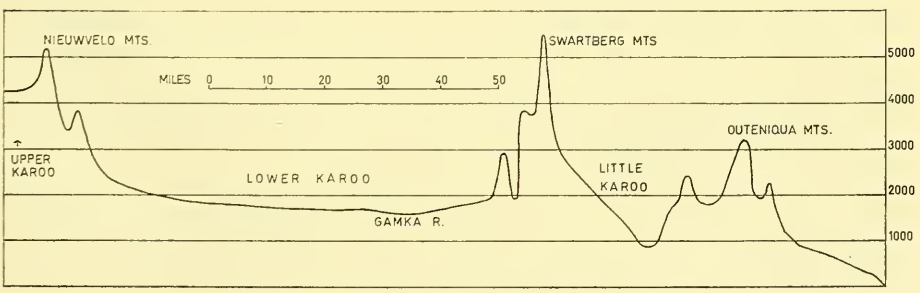
A second, but more interrupted, escarpment runs in a wavy line from Calvinia to Three Sisters, constituting the Roggeveld, Komsberg and Nieuweveld ranges, with peaks of over 6,000 ft.; and, north of this, there is a broad belt of country over 4,000 ft. in elevation, gradually dropping away to the north. After a break between Nelspoort and Murraysburg, this escarpment resumes again in the south of the Richmond District as the Sneeuwberg, with the highest peak reaching 8,500 ft.

The southerly and westerly flowing rivers mostly cut through the coastal ranges in their course; but the Nieuweveld range marks a divide, the rivers to the south flowing direct to the sea and those to the north draining (when they have any water) into the Orange River. On the Calvinia–Williston–Kenhardt borders is a tract of country characterized by wide, flat depressions, called vloers, flooded in wet years, which may drain into the Orange River system or may have no external drainage at all. Such are Grootvloer and Verneukpan, north of Brandvlei.

Geologically, the coastal strip is covered with Recent deposits, chiefly sand; the various rocks of the Karoo series which occupy the centre and east of our area produce soil usually with a red tinge; and the contrast between this and the greys and whites of the west coast sandveld is reflected in the plumage of many of the birds, in which coastal subspecies tend to be grey and inland subspecies brown or rufous (e.g. *Bradornis infuscatus*, *Certhilauda albescens* and *C. curvirostris*). The Archaean granites of the north are the home of the



Map 2. Western Cape, showing Escarpments and Mountain Ranges.
A–B: line of section in Inset.



Section along 22° E., from coast to Nieuwveld Mts.

pale desert species and subspecies, though whether this paleness is the effect of the soil or of the desert climate remains to be proved. It is, however, to be noted that where this granite is overlaid by red Kalahari sands, and there only, the Red Lark *Alaemon burra* occurs.

Climate

The application of the climatic classifications of Köppen and Thornthwaite to South Africa has been discussed by Schultze (1947). On the basis of the maps he gives, the main bulk of the western Cape—i.e. most of the Karoo—falls into the Arid Warm climate of Thornthwaite and the Desert of Köppen; but in the south, and extending through the macchia to the sea between Bredasdorp and Cape St. Blaize, is a belt of less arid country classified by Thornthwaite as Semi-arid Warm and by Köppen as Steppe (the northern limits vary considerably in the two classifications) and Semi-arid Warm or Steppe country also occurs in the Philipstown–Hopetown area in the north-east. The south-west corner is classified by Köppen as Warm with Dry Summers and by Thornthwaite as Sub-humid Warm (with patches of Humid Warm).

It will be seen below that I have used vegetation types rather than climate as the basis for my divisions of the western Cape, since they seem to me to accord more closely with the facts of bird distribution. It must be said, however, that the much more detailed information available for the vegetation enables refinements to be made in such maps which are not possible to climatologists, whose data are confined to relatively few stations and those mostly in the valleys—a particularly important point in connection with the semi-arid (steppe) intrusion to the south, since this zone is crossed by two mountain ranges with much wetter climates than the low country, parts of which, indeed, owe their aridity to their being in the rain-shadows of these ranges.

A further factor is the reliability of the rainfall. This may be measured in various ways, one of which is the percentage frequency of years in which the rainfall is within 85% of the normal. For the Winter Rainfall area, this figure is 70% or more, but for the Karoo it is 60–70% over the western, southern and eastern parts and 50–60% in the centre and north, in which the lowest annual rainfall may be less than 20% of the normal. Birds permanently inhabiting such areas must therefore be able to withstand severe drought conditions. In years of good rainfall, the areas may be invaded by species like the Tawny Pipit *Anthus novaeseelandiae* and the Quail *Coturnix coturnix*, which are unable to maintain themselves there permanently.

There would appear to be no real evidence that temperatures influence the distribution of birds within the area of this list, though there are occasional possible exceptions, as with the Yellow-billed Duck *Anas undulata* (Rowan, 1963*b*) and perhaps the subspecies *saturatior* of the Yellow-bellied Eremomela *Eremomela icteropygialis* (Winterbottom, 1962*a*).

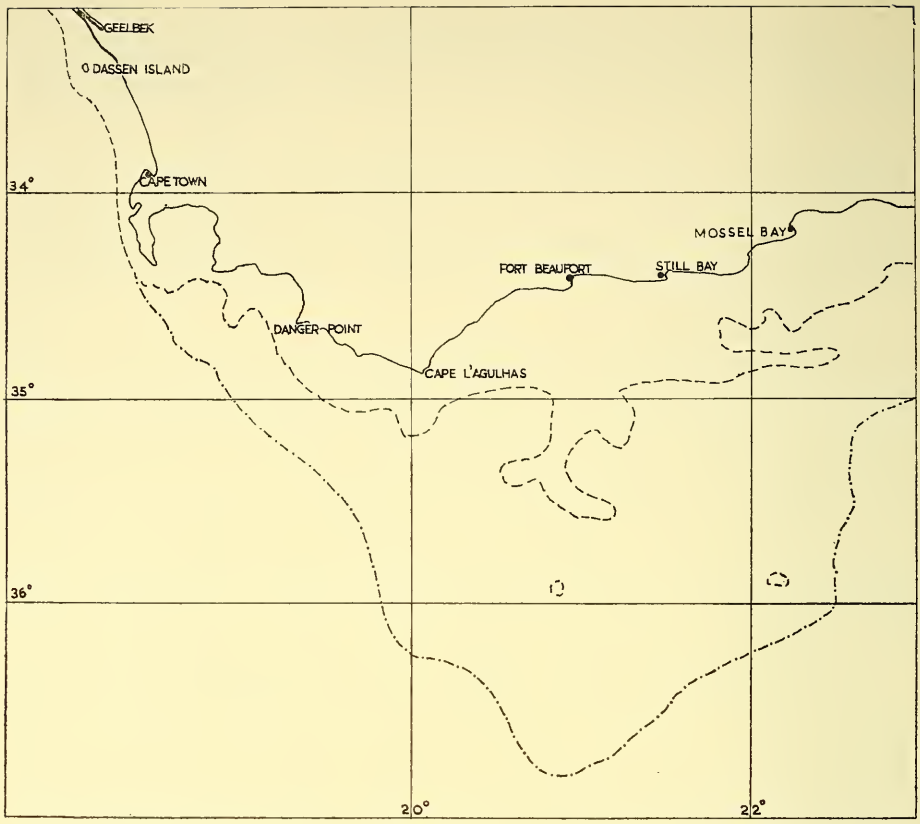
Zoogeography

I have already discussed (Winterbottom, 1960*c*) the broad zoogeographical and ecological divisions of the western Cape, which I have classified in three main divisions: Winter Rainfall, Temperate Forest and Karoo, of which the first and third are western and the second eastern in their affinities. The western affinities of the Winter Rainfall area, which have been disputed by Moreau (1952), might be expected in view of the probable derivation of part, at least, of the Karoo flora from that of this area (Acocks, 1953). The Temperate Forest is not further subdivided, but the others can be classified ecologically into various sections.

Before proceeding to discuss these, however, a brief summary of the effects, so far as we are able to judge them, of Pleistocene climatic and geographical changes may be given. They are more fully discussed in the paper already cited (Winterbottom, 1960*c*). In effect, it is there argued that the existing broad divisions persisted throughout, but not always in exactly the same geographical areas nor covering the same extent of land. In the pluvials, Temperate Forest would increase its area very considerably in the south at the expense of macchia, which, however, would expand northwards along the escarpment to Little Namaqualand and inland, at least on the mountains, to the Roggeveld and, perhaps, the Nieuweveld ranges. (See map in Cooke, 1962, and discussion in Moreau, 1963.)

Not discussed in my previous paper was the possible effect of the withdrawal of water from the sea during the northern glacial periods, with a consequent increase in land area, particularly to the south. There can be little doubt that this occurred to some extent. Krige (1927) states: 'The evidence in favour of submergence seems sound enough to deduce a former emergence of at least part of the Agulhas Bank, if not the whole of it. This emergence must have occupied much of the Pleistocene time', and he is inclined to add the effects of uplift to that of lowering of sea-level. The figures quoted by Zeuner (1959) for the lowering of the sea-level during the last glacial period are 75–100 m., which agree with those quoted by Krige from Du Toit but are considerably more than the Daly figure of 50–60 m. also quoted by Krige. Farrington, quoted by Beirne (1952), gives 400 ft. (= 150 m.). The attached map (map 3) shows the approximate effect of a lowering of the sea-level by 50 fathoms (i.e. roughly 100 m.), and may be taken to indicate the absolute maximum of extra land likely to be available as a result of this eustatic change of sea-level; but makes no allowance either for uplift or for later submarine erosion of the Bank, a factor to which Krige attaches importance. Zeuner is, moreover, inclined to accept an earlier eustatic change which lowered the sea-level 200 m. and which would have resulted in the conversion of the whole Agulhas Bank into dry land.

The significance of this extra land for the fauna and flora would depend to a considerable extent on when it was available. If it was available during an arid phase, it might well be of considerable importance in providing a



Map 3. The Agulhas Bank, showing the 50-fathom line and the edge of the Bank.

bigger 'refuge' for the Winter Rainfall flora and fauna; but if it was during a pluvial period, its significance would be much less. The correlations suggested between the African pluvials and the Holarctic glaciations are far from being firmly established; but Clark (1959) remarks that 'increases in rainfall appear to coincide with phases of falling sea-level'—in other words, the lower sea-level would occur during a pluvial—and he refers the major regression of the sea to the earlier part of the Gamblian Pluvial. This is the fourth pluvial and may correspond to the Würm Glaciation. The probability, therefore, that this extra land-area to the south was available only during the pluvial period(s), together with its limited extent, even if the whole Agulhas Bank were exposed, inclines me to believe that it is unlikely to have had a significant effect on the avifauna. This conclusion is reinforced by Van Zinderen Bakker's suggestion (1962) that 'the climate of the coastal region of the Cape may not have changed considerably since the Middle Pleistocene'.

Another proposal not discussed in my previous paper was the zoogeographical arrangement put forward by Bowen (1933), which is an attempt to

apply Merriam's 'life-zone' concept to Africa. Owing to the deplorably small scale of Bowen's maps, it is difficult to give precise limits to his divisions; but he divides the area covered in this list between three districts, each representative of a distinct climate, and an intermediate or transition zone. This last runs along the coast from the eastern side of False Bay eastwards. North of it lies his South-east Veldt District, forming the south-eastern province of his Highland Climate. The boundary, approximately east-and-west in the west, veers north-north-east and south-south-west about the Dwyka River and crosses the limits of our area at the Vaal–Orange confluence. North and west of this lies his Kalahari Arid District of the Kalahari Climate, which extends west to about Upington and the Ceres Karoo, to the west of which again, between it and the South-east Veldt District, is his Damara Arid District of the South-west Desert Climate.

It will be seen that the sclerophyll vegetation of the south-west is divided from north to south between the Damara Arid, South-east Veldt and transitional areas and that the first two of these are joined with areas of Karoo. Since these proposals, in my opinion, bear very little resemblance to the facts of bird distribution in the area, I do not propose to discuss them further. Even in North America, where it has had the widest acceptance, the life-zone concept has been severely criticized and is now considered useful only in limited mountain areas (see, e.g., Van Tyne & Berger, 1959).

Poynton (1960, 1961), using Bowen's ideas as a starting point, has produced another arrangement. He keeps the Cape sclerophyll area as a distinct temperate zone; the western coastal belt from St. Helena Bay north and the Orange River valley below the Aughrabies Falls is a 'subtraction-transition' area; and the rest of the western Cape, as defined here, forms his Western Temperate Transitional Zone. It will be seen that this broadly agrees with my own proposals, even to the recognition of a distinct west coast element (Winterbottom, 1960*c*), though differently weighted (Winterbottom, 1962*b*).

The proposals of De Meillon, Davis & Hardy (1961) are closely similar to those put forward here, the chief difference being the allocation of the west coast area, here included in the Karoo, to the Namib Desert Subregion, a proposal that merits serious consideration, though I think the weight of ornithological evidence is slightly against it, since none of the endemic Namib species occur south of the Orange River. Nevertheless, there are a number of subspecies of birds which are confined to this area, examples being *Certhilauda albescens codea*, *C. curvirostris falcirostris*, *Nectarinia chalybea albilateralis*, *Bradornis infuscatus infuscatus*, *Saxicola torquata clanceyi* and *Serinus flaviventris hesperus*.

Udvardy (1963) has virtually abandoned the classical type of zoogeographical study in favour of the idea of 'faunal groups' (see below, under 'Karoo', p. 24). While this concept can yield useful ancillary results, I regard it as less fruitful on the whole than the older method (Winterbottom, 1965*a*).

Bird Habitats

In considering the birds of the three major divisions into which I divide the western Cape, the primary stress will be on the ecological side, as shown in the various habitats available to them. A preliminary habitat classification for birds of the whole Cape Province south of the Orange River has already been published (Winterbottom & Skead, 1962) and this will be used in the discussion which follows.

Keast (1961) allocates the breeding land and fresh-water birds of Australia by major habitats, each species being included only once, 'under the formation to which it is confined or, in the case of those species which occur in more than one, under the formation that is judged to be its main habitat'. While it is fairly easy to disentangle species whose main habitat is forest, there are many species (*Streptopelia capicola*, *Mirafra apiata*, *Certhilauda albescens*, *Parisoma subcaeruleum*, *Lanius collaris*, *Malaconotus zeylonus*, *Serinus flaviventris*, *S. albogularis*, *Emberiza capensis*, to name a few at random) in which allocation to Winter Rainfall or to Karoo would be merely misleading. I therefore make no attempt to do so here. Some light may be thrown on the differences between Africa and Australia by considering that in the latter the savannah and sclerophyll areas are split into several sections by the central desert, whereas in Africa it is the savannah which is the central, continuous habitat, separating the desert and forest into several divisions each; while the sclerophyll forms a single block in the south-west (the northern sclerophyll, along the Mediterranean, belongs to the Palaearctic Region and the Ethiopian species in it are few and faunistically unimportant).

Furthermore, it is probable that the whole South West Arid district, of which both Winter Rainfall and Karoo areas are a part, is a better equivalent to one of Keast's 'major habitats' than either is separately; though even then certain species, such as *Streptopelia capicola*, which occurs widely in two or three other districts as well, would present grave difficulties.

Here are Winterbottom and Skead's habitats for the western Cape, omitting the habitats for Group A (Salt Water) as well as those in the other groups which do not occur in the western Cape:

B. FRESH WATER

1. Permanent vleis (including irrigation lakes and large farm dams)
2. Temporary vleis, flooded fields and sewage farms
3. Reservoirs and tanks (with cement or brick walls)
4. Mudflats and rivers with muddy beds
5. Reed-beds
6. Swamps
7. Wide rivers
8. Tree-enclosed rivers
9. Streams with rocky beds
10. Streams with sandy beds

C. FOREST

5. Knysna forest
15. South coast scrub forest (west of Knysna)

D. BUSHVELD

3. Valley bushveld
5. Spekboomveld or Succulent Mountain Karoo
6. Bush and thorn along Karoo rivers
7. Hillside scrub

E. OPEN VELD

3. Karroid Broken Veld
4. Central Upper Karoo
5. Western Mountain Karoo
6. Arid Karoo
7. Central Lower Karoo
8. Succulent Karoo
9. Orange River Broken Veld
10. Namaqua Broken Veld
11. Strandveld
12. False Arid Karoo
13. False Upper Karoo
16. False Succulent Karoo
17. False Orange River Broken Veld
18. Karroid *Danthonia*

F. MACCHIA

1. Mountain Renosterbosveld
2. Coastal Renosterbosveld
3. Coastal Macchia
4. Macchia
5. False Macchia
6. Dense stands of proteas

G. OTHER INDIGENOUS HABITATS

1. Sand dunes
2. Cliffs and precipices

H. ALIEN WOODLAND

1. Mixed alien woodland
2. Oak woods
3. Pine plantations
4. Gum plantations
5. Black wattle plantations
6. Rooikrantz and Port Jackson plantations
7. Hakea bush
8. Willow groves

I. AGRICULTURAL AND URBAN ENVIRONMENTS

1. Ploughed fields (bare of vegetation)
2. Pastures and commons
3. Winter cereal crops
4. Maize fields
5. Lucerne
6. Lupins
7. Vineyards
8. Orchards, deciduous
9. Orchards, citrus
12. Farmyards
13. Commercial vegetable gardens
14. Town gardens and parks
15. Closed towns without gardens
16. Quarries
17. Cuttings

For the present list, I have tried to make use of a series of collecting stations so spaced as to cover most of the geographical districts and most of the major habitats. These stations are listed in table 5 and shown on map 1. No collecting stations were located in the following districts:

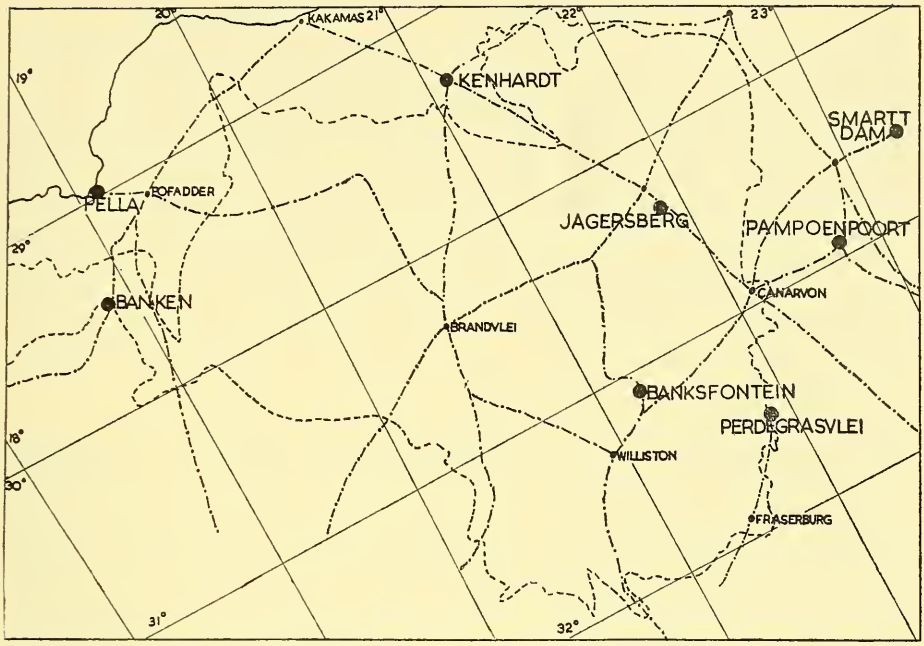
Ladismith, Montagu, Richmond, Tulbagh and Worcester, and the following of Acocks' habitats were not covered:

Danthonia Mountain Veld replaced by Karoo, Mountain Renosterbosveld, Karroid *Danthonia* Mountain Veld and False Macchia.

Of the districts omitted, Richmond was the one in which Grant and Seimund made their big collection for the British Museum during the Boer War; and a considerable collection was made in Worcester for the South African Museum by Butler in the 1890's. Moreover, I have traversed much of the latter district many times and have collected on odd days at Touws River and elsewhere. Montagu, Ladismith and Tulbagh are all small districts about whose avifauna enough is known to suggest that they do not differ from those of neighbouring areas.

Geographically, the biggest gap lies within the area bounded by 29° and 32°S. and 19° and 23°E. Most of this area, however, consists of Arid Karoo, which has been sampled by my collecting stations at Banken, Jagersberg and Banksfontein (map 4). As the map shows, I have also crossed the area on a number of different routes.

On the ecological side, the two types of *Danthonia* Mountain Veld occupy very small areas and there is no reason to think they are faunistically very important. The other two types are also predominantly mountain floras; and the indications are that the False Macchia has an avifauna very similar to that of the true Macchia. Attention should be given, however, to Mountain Renosterbosveld, the lack of information about which is a serious gap.



Map 4. The Arid Karoo. Borders of Arid Karoo: – – – – –
Author's Routes: –·–·–·–

Winter Rainfall Area

Although given the meteorologically-derived title of Winter Rainfall area, it should be noted that the area so delimited on the map (map 1) more closely coincides with the botanical division of sclerophyll or macchia (which needs a minimum of 10–15 in. of rain per annum—Wicht, 1945—or 250 mm.—Levyns, 1964) than with the limits of the area receiving 60% or more of its rainfall in winter; for the latter includes Namaqualand and all Ceres and Vanrhynsdorp and excludes the coastal districts from Robertson and Swellendam east, which receive rain at all seasons. As compared with the map in my original classification (Winterbottom, 1960*c*), the chief difference is that I have now excluded the whole of Acocks' Strandveld of the west coast from the Winter Rainfall area, analysis of its avifauna having shown that, although transitional, its affinities lie more with the Karoo.

As I have previously pointed out (Winterbottom, 1960*c*), the avifauna of the Winter Rainfall area is chiefly derived from the Karoo, with a small admixture of eastern forms and a still smaller one of species evolved *in situ* (e.g. *Promerops cafer*, *Bradypterus victorini*, *Serinus leucopterus*, *Nectarinia violacea*)—I estimate a total of 6 species and 20 subspecies as being essentially Winter Rainfall forms.

Further subdivision of the Winter Rainfall area is complicated by differences of opinion among the botanists. Thus Pole-Evans (1936) does not

further subdivide; Adamson (1938) uses five divisions; and Acocks (1953) also five—which do not coincide with Adamson's. In classifying the Cape Bird Club's Field Cards, I have, for convenience, used Acocks' divisions, combined with the club's own suggestions, which have included the separation of areas of dense *Protea* (pl. II, fig. 1) from the rest. For the relations these Acocks divisions bear to Adamson's, see table 5, where my chief collecting stations are shown with all three botanical classifications. To the non-botanist, Acocks' divisions are easier to use, since each locality can be pinpointed on his relatively large-scale map; whereas Adamson's maps are on a much smaller scale and are practically devoid of reference points. I therefore use Acocks' divisions as a basis for what follows and they have been similarly used by Winterbottom & Skead (1962) for the whole Cape Province south of the Orange River.

Data on absolute densities of birds in the Winter Rainfall area have never been published; but I have the results of some counts of my own and of others made under my direction at the Percy FitzPatrick Institute of African Ornithology's Field Courses in 1961, 1962 and 1965, all relating to Coastal Macchia and covering an area of 522 acres. All counts were made in spring and early summer (between August and December); and a total of 1,609 birds of 70 species is included. The most numerous species is the Grey-backed Cisticola *Cisticola subruficapilla*, with 231 individuals. Next in order of abundance are the Karoo Prinia *Prinia maculosa* (164), the Yellow Canary *Serinus flaviventris* (83), the Cape Bulbul *Pycnonotus capensis* (83), the Orange-breasted Sunbird *Nectarinia violacea* (80), and the Lesser Double-collared Sunbird *Nectarinia chalybea* (66). The Karoo Robin *Erythropygia coryphaea* and the Cape Bunting *Emberiza capensis*, the White-eye *Zosterops virens*, the Stonechat *Saxicola torquata* and the Cape Robin *Cossypha caffra* were the next most numerous species; and the most abundant non-passerines were the Black Swift *Apus barbatus* (26) and the Cape Turtle Dove *Streptopelia capicola* (32). Work is now in progress on the population of Coastal Renosterbosveld in the Bontebok National Park, Swellendam.

The five types into which Acocks (1953) divides the vegetation of the Winter Rainfall area fall into four divisions—False Karoo types, Temperate and Transitional Forest types, Sclerophyllous Bush types and False Sclerophyllous Bush types. My data are at present adequate only to deal, even approximately, with three types altogether, one being Macchia, the only type in the third division, and the others Coastal Macchia and Coastal Renosterbosveld, both of the second division. They constitute F4, F3 and F2 of Winterbottom & Skead's classification (p. 12 above). In addition, I have fair data for dense Protea Bush (F6 above). The detailed ecology of those habitats has been discussed elsewhere (Winterbottom, 1966*d*) and that of the Macchia, including dense Protea Bush, by Broekhuysen (1966). The characteristic (i.e. regular and dominant as defined in the next paragraph) species are listed, dominant species being in bold type, in table 6. Of the 70 species in the table, only

17 are common to all four lists and only five have the same status (i.e. either dominant or regular) in all.

We may take it that Macchia is the 'Cape Flora' *par excellence* and that dense protea is climax Macchia. The botanical peculiarities of this flora are reflected in the avifauna. In considering these lists, based on the Cape Bird Club collection of Field Cards, I have called 'dominant' those birds which occur in 40% or more of the lists for any habitat; and 'regular' those which occur in 10–39% (Winterbottom, 1966*d*). There are 21 such species for dense protea, five dominant and 16 regular. All five dominants are dominant also in Macchia; and only one of the regular species (*Apalis thoracica*) does not appear also in the Macchia list and that is essentially a species of dense vegetation.

In view of this close similarity, we may consider Macchia as holding the characteristic avifauna of the Cape flora. There are 15 dominant and 17 regular species in it, a considerably shorter list than for either of the others. Of its dominant species *Cisticola fulvicapilla*, *Onychognathus morio*, *Promerops cafer*, *Nectarinia famosa*, *Nectarinia violacea* and *Zosterops virens* are not dominant in either of the other lists. Macchia shares five dominant species with Coastal Macchia and three with Coastal Renosterbosveld; and 25 species of its regular and dominant forms are common to each of the others, though not always the same species. The species in the Macchia list not found in either of the others number four and are: *Monticola rupestris*, *Cercomela familiaris*, *Laniarius ferrugineus*, and *Serinus tottus*. It will be noted that three are birds associated with mountainous or rocky terrain.

Coastal Macchia has 16 dominant and 37 regular species; and Coastal Renosterbosveld, 9 and 46 respectively. Of the 9 Coastal Renosterbosveld dominants, all but one are dominant in Coastal Macchia too, the other (*Afrotis afra*) being regular; and of the total lists of 53 and 55 respectively, 42 species appear in both. Of those that do not, Coastal Macchia shares four with Macchia and Coastal Renosterbosveld also shares four. Coastal Macchia has seven species which do not appear in either of the other lists: *Buteo buteo*, *Circus ranivorus*, *Colius striatus*, *Certhilauda curvirostris*, *Sturnus vulgaris*, *Cisticola tinniens*, *Creatophora cinerea*—a curious assemblage which no single explanation will cover. Coastal Renosterbosveld has nine species not appearing in either of the other lists: *Francolinus africanus*, *Caprimulgus pectoralis*, *Calandrella cinerea*, *Hirundo albigularis*, *H. cucullata*, *Corvus capensis*, *Parisoma subcaeruleum*, *Cisticola textrix* and *Anthus novaeseelandiae*. In this case, it may be noted that *Calandrella*, *Cisticola* and *Anthus* are all characteristic of short vegetation.

As we shall see when we come to deal with the Karoo faunas, the vegetation type known as Strandveld (E11) is, in fact, a transitional one. Here it may be noted that 11 species, regular or dominant in Coastal Macchia and/or Coastal Renosterbosveld but not in Macchia, are regular or dominant in Strandveld. It is clear therefore that all three of these faunas are intermediate in character between that of the true Cape flora and the true Karoo floras. A further point

TABLE 5

CHIEF COLLECTING STATIONS

District	Station	Botanical Classification		
		Acocks (1953)	Adamson (1938)	Pole Evans (1936)
Beaufort West	Hillmore	Central Lower Karoo	Karroo Bush	Desert Shrub
Bredasdorp	Cape L' Agulhas	Coastal Macchia	Sclerophyll	Evergreen Sclerophyll Bush
Britstown	Smartt Dam	False Arid Karoo	Karroo Bush	Desert Shrub
Calitzdorp	Matjiesvlei	Succulent Mountain Scrub	Sclerophyll	Evergreen Sclerophyll Bush
Calvinia	Lokenburg	Western Mountain Karoo	Succulent Bush	Desert Shrub
Carnarvon	Jagersberg	Arid Karoo	Karroo Bush	Desert Shrub
Ceres	Hoop-en-Uitkoms	Macchia	Sclerophyll	Evergreen Sclerophyll Bush
Clanwilliam	Citrusdal	Macchia	Tall Succulent Bush	Evergreen Sclerophyll Bush
	Leipoldtville	Strandveld of West Coast	Coastal Succulent Bush	Evergreen Sclerophyll Bush
De Aar	Nuwejaarsfontein	False Upper Karoo	Karroo Bush	Desert Shrub
Fraserburg	Perdegrasvlei	False Arid Karoo	Karroo Bush	Desert Shrub
Gordonia	Louisvale	Orange River Broken Veld	Bush Savannah	Desert Shrub
Hopetown	Kareekloof	False Orange River Broken Veld	*Gnidia* Community	Desert Shrub
Kenhardt	Kenhardt	Orange River Broken Veld	*Rhigozum* Community	Desert Shrub
Laingsburg	Dikbome	Karroid Broken Veld	Succulent Bush	Desert Shrub
Mossel Bay	Great Brak River	Valley Bushveld	Sclerophyll	Evergreen Sclerophyll Bush
	Ruiterbos	Knysna Forest	Sclerophyll	Evergreen Sclerophyll Bush
Namaqualand	Garies	Namaqualand Broken Veld	Succulent Bush	Desert Shrub
	Pella	Orange River Broken Veld	*Rhigozum* Community	Desert Succulent and Desert Grass
	Richtersveld	Namaqualand Broken Veld	Coastal Succulent Bush	Desert Succulent and Desert Grass
	Silverfontein	Namaqualand Broken Veld	Succulent Bush	Desert Shrub
	Banken	False Succulent Karoo	*Rhigozum* Community	Desert Succulent and Desert Grass

Oudtshoorn	Oudtshoorn	Karroid Broken Veld	Succulent Bush	Desert Shrub
	De Rust	Succulent Mountain Scrub	Succulent Bush	Desert Shrub
Philipstown	Washbank	False Upper Karoo	Karroo Bush	Desert Shrub
Piketberg	Kersefontein	Strandveld of West Coast	Dry Sclerophyll	Evergreen Sclerophyll Bush
	Vensterklip	Macchia	Sclerophyll	Evergreen Sclerophyll Bush
Prieska	Koegasbrug	Orange River Broken Veld	Bush Savannah	Desert Shrub
Prince Albert	Rondawel	Karroid Broken Veld	Succulent Bush	Desert Shrub
Riversdale	Still Bay	Coastal Macchia	Sclerophyll	Evergreen Sclerophyll Bush
Robertson	Vrolijkheid	Karroid Broken Veld	Dry Sclerophyll	Desert Shrub
Sutherland	Blouheuwel	Succulent Karoo	Succulent Bush	Desert Succulent and Desert Grass
Swellendam	Barrydale	Karroid Broken Veld	Succulent Bush	Evergreen Sclerophyll Bush
	Bontebok Park	Coastal Renosterbosveld	Sclerophyll	Evergreen Sclerophyll Bush
Vanrhynsdorp	Monazite Mine	Succulent Karoo	Succulent Bush	Desert Shrub
	Papendorp	Succulent Karoo	Coastal Succulent Bush	Desert Succulent and Desert Grass
Victoria West	Wagenaarskraal	Central Upper Karoo	*Gnidia* Community	Desert Shrub
	Pampoenpoort	False Arid Karoo	Karoo Bush	Desert Shrub
Williston	Banksfontein	Arid Karoo	*Lycium* Community	Desert Shrub

TABLE 6

DOMINANT AND REGULAR BIRDS IN SOME WINTER RAINFALL HABITATS

Macchia	Coastal Macchia	Coastal Renosterbosveld	Dense Proteas
Falco tinnunculus	—	*Falco tinnunculus*	—
—	*Elanus caeruleus*	*Elanus caeruleus*	—
Buteo rufofuscus	*Buteo rufofuscus*	—	—
—	*Buteo buteo*	—	—
—	*Circus ranivorus*	—	—
—	—	*Francolinus africanus*	—
Francolinus capensis	**Francolinus capensis**	*Francolinus capensis*	—
—	*Afrotis afra*	**Afrotis afra**	—
—	*Vanellus coronatus*	*Vanellus coronatus*	—
—	*Burhinus capensis*	*Burhinus capensis*	—
Columba guinea	*Columba guinea*	—	—
Streptopelia capicola	**Streptopelia capicola**	**Streptopelia capicola**	*Streptopelia capicola*
—	*Streptopelia senegalensis*	*Streptopelia senegalensis*	—
—	—	*Caprimulgus pectoralis*	—
—	*Apus barbatus*	*Apus barbatus*	—
Apus melba	*Apus melba*	*Apus melba*	—
—	*Colius striatus*	—	—
Geocolaptes olivaceus	—	*Geocolaptes olivaceus*	—
—	*Mirafra apiata*	*Mirafra apiata*	—
—	*Calendula magnirostris*	*Calendula magnirostris*	—
—	*Certhilauda curvirostris*	—	—
—	—	*Calandrella cinerea*	—
Hirundo rustica	*Hirundo rustica*	*Hirundo rustica*	—
—	—	*Hirundo albigularis*	—
—	—	*Hirundo cucullata*	—
Hirundo rupestris	*Hirundo rupestris*	—	—
—	*Riparia paludicola*	*Riparia paludicola*	—
—	*Corvus albus*	*Corvus albus*	—
—	—	*Corvus capensis*	—
Corvus albicollis	—	*Corvus albicollis*	—
Pycnonotus capensis	**Pycnonotus capensis**	*Pycnonotus capensis*	*Pycnonotus capensis*
Monticola rupestris	—	—	—
Cercomela familiaris	—	—	—
—	**Saxicola torquata**	*Saxicola torquata*	—

Cossypha caffra	**Cossypha caffra**	**Cossypha caffra**	**Cossypha caffra**
—	**Erythropygia coryphaeus**	**Erythropygia coryphaeus**	—
Sphenoeacus afer	**Sphenoeacus afer**	*Sphenoeacus afer*	*Sphenoeacus afer*
—	*Sylvietta rufescens*	*Sylvietta rufescens*	—
—	**Apalis thoracica**	*Apalis thoracica*	*Apalis thoracica*
—	—	*Cisticola textrix*	—
Cisticola fulvicapilla	—	*Cisticola fulvicapilla*	—
—	*Cisticola tinniens*	—	—
Cisticola subruficapilla	**Cisticola subruficapilla**	**Cisticola subruficapilla**	*Cisticola subruficapilla*
Prinia maculosa	**Prinia maculosa**	**Prinia maculosa**	**Prinia maculosa**
—	—	*Parisoma subcaeruleum*	—
—	*Sigelus silens*	*Sigelus silens*	—
—	*Motacilla capensis*	*Motacilla capensis*	—
—	—	*Anthus novaeseelandiae*	—
—	*Macronyx capensis*	*Macronyx capensis*	—
Lanius collaris	**Lanius collaris**	**Lanius collaris**	*Lanius collaris*
Laniarius ferrugineus	—	—	*Laniarius ferrugineus*
Malaconotus zeylonus	**Malaconotus zeylonus**	**Malaconotus zeylonus**	*Malaconotus zeylonus*
—	*Sturnus vulgaris*	—	—
—	*Creatophora cinerea*	—	—
Onychognathus morio	*Onychognathus morio*	*Onychognathus morio*	*Onychognathus morio*
—	**Spreo bicolor**	*Spreo bicolor*	—
Promerops cafer	*Promerops cafer*	—	**Promerops cafer**
Nectarinia famosa	*Nectarinia famosa*	*Nectarinia famosa*	**Nectarinia famosa**
Nectarinia violacea	*Nectarinia violacea*	*Nectarinia violacea*	**Nectarinia violacea**
Nectarinia chalybea	**Nectarinia chalybea**	*Nectarinia chalybea*	*Nectarinia chalybea*
Zosterops virens	*Zosterops virens*	*Zosterops virens*	*Zosterops virens*
—	**Passer melanurus**	*Passer melanurus*	—
Ploceus capensis	*Ploceus capensis*	*Ploceus capensis*	*Ploceus capensis*
Euplectes capensis	*Euplectes capensis*	*Euplectes capensis*	*Euplectes capensis*
—	*Estrilda astrild*	*Estrilda astrild*	—
Serinus tottus	—	—	*Serinus tottus*
Serinus canicollis	*Serinus canicollis*	*Serinus canicollis*	*Serinus canicollis*
—	*Serinus albogularis*	*Serinus albogularis*	—
—	*Serinus flaviventris*	*Serinus flaviventris*	—
Emberiza capensis	**Emberiza capensis**	**Emberiza capensis**	*Emberiza capensis*

is that, whereas the Macchia flora is of astonishing richness and diversity, the avifauna is relatively impoverished, having only 32 regular and dominant species as against 55 for Coastal Macchia and 55 for Coastal Renosterbosveld.

The characteristic (i.e. regular and dominant) species for the four habitats listed in table 6 represent 22 families, 12 passerine and 10 non-passerine, that with most representatives being the Muscicapidae (15, 7 in Macchia, 10 in Coastal Macchia, 12 in Coastal Renosterbosveld and 5 in Dense Protea; of which 4, 6, 7 and 4 respectively belong to the Sylviinae). The Fringillidae have 5 species (4 each in Coastal Macchia and Coastal Renosterbosveld) and so have the Hirundinidae (4 in Coastal Renosterbosveld); the Alaudidae, Sturnidae and Ploceidae each have 4 (all 4 Sturnidae in Coastal Macchia and all 4 Ploceidae in Coastal Macchia and Coastal Renosterbosveld).

Temperate Forest

The Temperate Forest, as stated above, is not further subdivided here. In our area, this habitat exists in restricted localities only and much of it is relict in its status. This is brought out by the western limits of characteristic species which penetrate into the western Cape, as shown in table 7. The affinities of the Temperate Forest avifauna are with the avifauna of the Temperate and Tropical Forests further east (Winterbottom, 1960*c*, 1962*a*), which is the more interesting in that Levyns (1963) considers the flora closely connected with those of the Winter Rainfall and Succulent Karoo areas. However, she notes that it is an old flora of mixed origin, some genera giving indications of northern affinities, while others clearly point to the south. These latter she considers support the theory of continental drift, a theory which is of no value to the ornithologist, since the events it postulates must have taken place before the evolution of the modern bird orders.

Although a small enclave of the Knysna Forest enters our area in the south-east, it is so small in extent and so limited in geographical distribution that it will not be treated here as distinct from the relict patches further west, though the Knysna Forest as a whole is divided from them by Winterbottom & Skead (1962). Nor have I distinguished here the bramble scrub along forest edges. It is chiefly important as the preferred habitat of *Bradypterus sylvaticus*.

While considered faunistically distinct, the Temperate Forest occurs only as enclaves within the Winter Rainfall area (and not within the Karoo area); and for geographical purposes in the systematic list is lumped with that area: in other words, the districts and sub-districts (see p. 60) are grouped into 'Karoo' and 'Winter Rainfall' and there are no 'Temperate Forest' districts.

There are no available figures for absolute density of birds in Temperate Forests. Indeed, the assessment of population within such an environment is one of the most intractable problems of bird census work. Thirty-eight lists are, however, available in the Cape Bird Club files, though relating chiefly to the least extensive and most relict forests of the extreme south-west and not

TABLE 7
DISTRIBUTION OF TEMPERATE FOREST BIRDS

Species	Western Limit
Accipiter tachiro	Cape Peninsula
Polyboroides typus	Somerset West
Francolinus afer	Swellendam (French Hoek?)
Sarothrura affinis	Swellendam
Columba arquatrix	Cape Peninsula
Aplopelia larvata	Cape Peninsula
Cuculus solitarius	Cape Peninsula
Chrysococcyx klaas	Cape Peninsula
Tauraco corythaix	Ruiterbos, Mossel Bay Dist.
Ciccaba woodfordi	Cape Peninsula
Mesopicos griseocephalus	Cape Peninsula
Campethera notata	De Hoop, Bredasdorp Dist.
Psalidoprocne pristoptera	Cape Peninsula
Campephaga phoenicea	Cape Peninsula
Coracina caesia	Swellendam
Oriolus larvatus	Ruiterbos
Phyllastrephus terrestris	Swellendam
Andropadus importunus	Cape Peninsula
Muscicapa adusta	Cape Peninsula
Batis capensis	Cape Peninsula (N. to western Calvinia)
Trochocercus cyanomelas	Swellendam
Terpsiphone viridis	Cape Peninsula
Bradypterus sylvaticus	Cape Peninsula
Turdus olivaceus	Cape Peninsula (*T.o. smithii* on Karoo)
Cossypha dichroa	Ruiterbos
C. caffra	Cape Peninsula (N. to Kamiesberg; *C.c. namaquensis* on Karoo)
Pogonocichla stellata	Swellendam
Laniarius ferrugineus	Cape Peninsula
Dryoscopus cubla	Ruiterbos
Malaconotus olivaceus	Swellendam
Onychognathus morio	Cape Peninsula
Nectarinia amethystina	Swellendam
N. afra	Cape L'Agulhas, Robertson
Zosterops virens	Cape Peninsula (N. to Springbok)
Estrilda melanotis	Cape Peninsula
Serinus scotops	Caledon (probably only as straggler; otherwise Swellendam)

including the most important areas, Grootvadersbos in Swellendam and Ruiterbos in Mossel Bay. The regular and dominant species are:

Columba arquatrix, *Streptopelia capicola*, *Pycnonotus capensis*, **Andropadus importunus, Muscicapa adusta, Batis capensis, Turdus olivaceus, Cossypha caffra,** *Apalis thoracica*, **Laniarius ferrugineus,** *Onychognathus morio*, **Zosterops virens,** *Nectarinia famosa*, *N. violacea*, *N. chalybea*, *Serinus canicollis.*

Of these, four (*Columba arquatrix*, *Andropadus importunus*, *Muscicapa adusta*, *Laniarius ferrugineus*) can be regarded as true forest forms; and three more (*Turdus olivaceus*, *Cossypha caffra*, *Zosterops virens*) are probably originally forest forms, which have extended their range into other habitats. The remaining nine are intrusive forms from the surrounding sclerophyll; and the high per-

centage of such species (56%) strikingly emphasizes the relict status of our forest patches.

The birds fall into eight families, seven of them passerine, those represented by most species being the Muscicapidae (5 species, 2 Muscicapinae, 2 Turdinae and 1 Sylviinae) and the Nectariinidae (3 species).

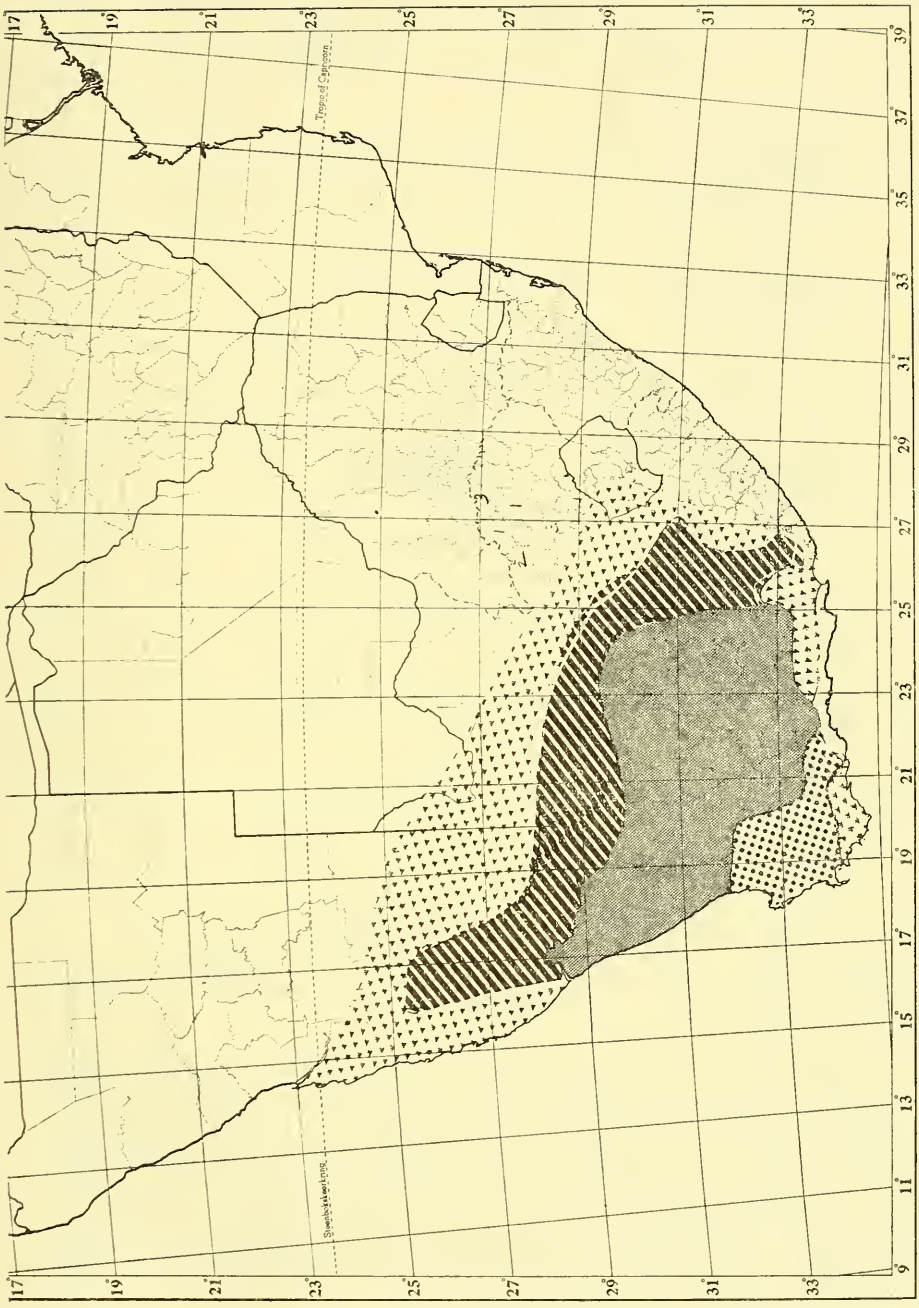
Karoo Area

I have already given my reasons (Winterbottom, 1960*c*) for rejecting the proposal of McLachlan & Liversidge (1957) to divide the Karoo of the western Cape zoogeographically into four divisions; and (above) for similarly rejecting Bowen's proposal to divide it into three, plus a transition zone. These decisions were based on the facts set out in table 9, where the geographical distribution of characteristic Karoo birds is shown in much greater detail than was possible in my previous paper. For the reasons there and elsewhere (Winterbottom, 1966*h*) set out, I regard much of Great Namaqualand (at least the Rubble Calcrete Shelf and Shrub-grass Veld of Keet, 1949) as part of the Karoo (cf. Poynton, 1960, who includes this area in his Western Temperate Transitional). A number of species and sub-species of birds are confined to the Karoo as thus defined and these are set out in table 8.

Although my original concepts of what constitutes the Karoo were based on the distributions of the species set out in table 9 and on the botanical evidence, they are confirmed if one adopts Udvardy's (1963) concept of faunal populations. I estimate that twenty-one species have their centres of distribution on the Karoo and were therefore presumably evolved there. These are:

Otis ludwigii
Eupodotis vigorsii
Certhilauda albescens
Calendula magnirostris
Alaemon burra
Calandrella sclateri
Cercomela schlegelii
C. tractrac
C. sinuata
Erythropygia coryphaea
Euryptila subcinnamomea
Eremomela gregalis
Cisticola subruficapilla
Prinia pectoralis
P. substriata
Parisoma layardi
Batis pririt
Onychognathus nabouroup
Nectarinia fusca
Serinus alario
S. albogularis

Although available records from outside the western Cape are imperfect, and, in places, fragmentary, the accompanying map reveals the position fairly accurately. The 'heart-land' of the Karoo is clearly the area south of the Orange and north of the coastal escarpments of the south, extending as far west as 25°E., with a strong element extending nearly 10° farther east; and northward in South West Africa almost to 25°S. The close relationship of the Karoo fauna to that of the Winter Rainfall area is also clear from this map. Further consideration of the implications of this method of analysis have been published elsewhere (Winterbottom, 1965*a*).



Map 5. Superimposed distributions of 21 Karoo species. Cross-hatched: 15–21 species; diagonal lines: 10–14 species; tufts: 5–9 species; dots: 3–4 species.

TABLE 8

FORMS CONFINED TO THE KAROO (INCLUDING GREAT NAMAQUALAND, S.W.A.)

Form	Remarks
SPECIES	
Eupodotis vigorsii	Also W.R. area
Alaemon burra	
Certhilauda albescens	Also W.R. area (separate subspecies)
Calandrella sclateri	
Cercomela schlegelii	
C. tractrac	Also W.R. area
Erythropygia coryphaea	Also W.R. area
Euryptila subcinnamomea	
Eremomela gregalis	
Cisticola subruficapilla	Also W.R. area (separate subspecies)
Prinia substriata	
Parisoma layardi	Also W.R. area (separate subspecies)
SUBSPECIES	
Rhinoptilus africanus granti	
Pterocles namaqua furva	Also W.R. area
Apus affinis theresae	Also W.R. area
Certhilauda curvirostris subcoronata	*
C.c. falcirostris (W)	*
C.c. gilli	*
C. albofasciata macdonaldi	*
C.a. latimerae	*
C.a. bushmanensis	*
Calandrella starki gregaria	
Saxicola torquata clanceyi (W)	*
Sylvietta rufescens diverga	*
Bradornis i. infuscatus (W)	*
B.i. seimundi	*
Parus afer afer	Also W.R. area
Anthoscopus minutus gigi	*
Nectarinia chalybea albilateralis (W)	*
Ploceus velatus inustus	*
Serinus flaviventris quintoni	*
S.f. hesperus (W)	*
Emberiza impetuani sloggetti	Also W.R. area*

* Range restricted to a limited part of the Karoo; replaced by other subspecies elsewhere. Those marked (W) are confined to the west coast strip.

Notwithstanding this general uniformity, it is sometimes useful to divide the Karoo into rough geographical areas for descriptive purposes, provided they are not regarded as of zoological importance. Five may be recognized in the western Cape: Little Namaqualand, Bushmanland, Upper Karoo, Lower Karoo and Little Karoo (map 1). Of these, the most distinctive zoologically is Bushmanland, as defined in table 11, from which sixteen of the species listed in that table as present in all the other four divisions have not been recorded:

Gyps fulvus, *Francolinus africanus*, *F. capensis*, *Caprimulgus pectoralis*, *Geocolaptes olivaceus*, *Corvus albicollis*, *Monticola rupestris*, *Saxicola torquata*, *Apalis thoracica*,

Prinia maculosa, *Sigelus silens*, *Sturnus vulgaris*, *Spreo bicolor*, *Nectarinia famosa*, *Ploceus capensis*, *Euplectes capensis*; another three are absent from it and one other division only (*Aquila rapax*, *Circus maurus* and *Anthropoides paradisea*); and two (*Mirafra sabota* and *Alaemon burra*) are recorded only from Bushmanland and the Upper Karoo.

There are six species (*F. rupicoloides*, *Eremopterix verticalis*, *E. australis*, *Myrmecocichla formicivora*, *Sporopipes squamifrons*, and *Nectarinia fusca*) not recorded from the Little Karoo but recorded from the other four divisions: and a further five (*Circus maurus*, *Calandrella starki*, *C. sclateri*, *Prinia flavicans* and *Amadina erythrocephala*) absent from the Little Karoo and one other division.

The only species confined to a single division (Upper Karoo) is *Hirundo spilodera*.

In order further to check the validity of divisions not based on ecology, I tried two other arrangements of the districts. One of these was based on rainfall, whether summer, winter or at all seasons. Three species (*Aquila rapax*, *Eupodotis caerulescens*, *Otis denhami*) were confined to the summer rainfall area. Another five species (*Anthropoides paradisea*, *Mirafra sabota*, *Alaemon burra*, *Calandrella sclateri* and *Hirundo spilodera*) are absent from the winter rainfall districts, but all are species limited further to one or two of the 'rain at all seasons' districts; and the first of them is a breeding resident within the Winter Rainfall area of the south. It therefore appears highly unlikely that the time at which rain falls is a significant factor in bird distribution on the Karoo.

The other grouping was an attempt to combine geography with other factors. It removed Calvinia 1 to Bushmanland; Ceres 2 to the Winter Rainfall area (where it properly belongs); and split off Richmond, De Aar, and Philipstown as False Upper Karoo. The only effects of this were to add one species (*Spreo bicolor*) to the Bushmanland list; and to establish that three species (*Otis ludwigii*, *Caprimulgus pectoralis* and *Alaemon burra*) recorded from the Upper Karoo, have not been recorded from the False Upper Karoo.

The rejection of geographical subdivisions therefore seems amply justified.

Having rejected geographical divisions, it remains to consider ecological ones. As with the Winter Rainfall area, so with the Karoo—when it comes to subdivision, the botanists disagree. Pole-Evans (1936) uses two divisions only; Adamson (1938) uses six; and Acocks (1953) no less than twenty-one, five of which, however, do not occur in our area. The complications caused by these differences are illustrated in table 5, in which my chief collecting stations are classified according to each of these three. For convenience, as explained on p. 16, I have used Acocks' classification and the distribution of the characteristic Karoo birds within these subdivisions is set out in table 10.

One further ecological division of the Karoo must be mentioned before any detailed discussion of the validity of Acocks' divisions as a basis for the ecology of the birds can be made. This is the growth of thorny bushes, chiefly *Acacia* and *Rhus*, along many of the watercourses (D6 of Winterbottom & Skead). The outstanding example is along the Orange River (pl. V, fig. 1), but examples

TABLE 9
GEOGRAPHICAL DISTRIBUTION OF KAROO BIRDS

DISTRICT:	Bushman-land	Namaqualand								Upper Karoo															Lower Karoo							Little Karoo					
Species	K	N4	U	Cl1	N1	N2	N3	V	B	BW1	C1	C2	Cn	D	F	H	P	Pr	R	Su1	VW	W	BW2	BW3	Ce3	Cl2	Lg	PA	Su2	Wo3	Ct	L	M	O	Rv2	Sw2
Sagittarius serpentarius		×		×	×		×	×		×	×		×			×	×		×		×	×	×		×		×	×					×		×
Gyps coprotheres					×	×		×		×				×		×	×	×			×		×			×							×		
Falco peregrinus			×			×	×	×			×	×					×						×									×			
F. biarmicus	×	×	×		×		×	×	×	×	×	×	×	×		×	×		×		×		×						×				×		
F. rupicoloides	×	×	×		×		×	×	×	×	×	×	×	×		×	×	×	×		×		×		×		×			×					
F. tinnunculus	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Elanus caeruleus			×	×	×	×	×	×							×	×	×				×		×				×	×	×	×	×	×	×	×		
Aquila rapax										×						×	×		×		×		×										×		
Spizaetus bellicosus		×	×	×	×		×		×	×		×	×			×	×	×			×		×				×	×				×	×		
Circaetus pectoralis	×				×		×		×	×						×	×				×	×	×					×				×	×		
Buteo rufofuscus	×	×		×	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×			×	×	×		×		×	×	×		
Melierax musicus	×	×	×		×	×	×	×	×	×	×	×	×	×		×	×	×	×		×	×	×				×	×	×	×	×	×	×	×		
Circus maurus				×	×			×			×	×			×		×		×		×	×	×				×								
Francolinus africanus				×			×	×		×			×			×			×		×	×	×		×		×	×	×	×		×	×	×		
F. capensis			?	×		?		×				×			?					×					×	×		×	×			×	×		
Anthropoides paradisea									×	×				×			×		×		×		×										×	×		
Otis kori	×	×	×		×	×	×	×		×	×			×		×	×	×				×	×											×		
O. ludwigii			×										×								×		×					×								
O. denhami	×	×	×	×		×	×		×		×	×	×	×	×	×	×	×	×		×	×	×				×							×		
Eupodotis vigorsil	×	×	×	×				×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×				×	×	×	×				×		
Eupodotis caeruleseens														×		×	×		×				×													
Afrotis afra	×	×	×	×	×	×	×	×	×			×	×	×		×	×	×	×	×	×		×			×	×	×	×	×	×	×	×	×		
Burhinu seapensis	×		×	×	×		×	×				×	×	×	×	×	×		×		×	×	×				×	×		×	×		×	×		
Vanellus coronatus			×	×	×		×	×				×	×	×		×	×		×				×					×		×		×	×	×		
Cursorius rufus	×	×	×		×		×	×	×		×	×	×	×	×	×	×		×		×	×	×											×		
Rhinoptilus africanus	×	×	×	×			×	×	×				×	×	×	×	×		×		×		×		×		×	×		×	×			×		
Pteroeles namaqua	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×			×	×	×		×		×	×	×		×
Columba guinea	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×
Streptopelia capieola	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×
S. senegalensis	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×			×	×	×	×	×	×	×	×	×	×	×
Oena capensis	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×			×	×	×	×	×	×	×	×			×
Merops apiaster	×		×	×	×		×	×			×	×	×	×	×	×		×	×		×	×	×	×	×	×	×	×			×	×	×	×		
Upupa epops	×	×	×	×	×		×	×				×	×			×	×				×		×				×	×	×		×	×	×	×	×	
Tyto alba			×	×	×		×	×	×				×				×	×	×		×	×	×										×	×		
Bubo africanus	×	×	×	×	×	×	×	×		×		×	×	×		×	×	×	×		×	×	×				×	×	×		×	×	×	×		
Caprimulgus pectoralis				×	×		×						×								×		×				×	×					×			
C. rufigena	×	×	×	×			×	×	×	×			×	×	×	×	×		×		×	×	×				×	×	×						×	
Apus barbatus			×	×	×			×	×				×	×		×	×	×			×		×					×		×			×	×	×	
A. caffer		×	×	×	×		×	×	×	×		×	×	×	×		×	×	×	×	×	×	×			×	×	×	×	×	×	×	×	×	×	×

District:	Bushman-land	Namaqualand									Upper Karoo												Lower Karoo				Little Karoo					
Species	K	N_4	U	Cl_1	N_1	N_2	N_3	V	B	BW_1	C_1	C_2	Cn	D	F	H	P	Pr	R	Su_1	VW	W	BW_2	BW_3	Ce_3	Cl_2	Lg	PA	Su_2	Wo_3	Ct	L	M	O	Rv_2	Sw_2
A. affinis	×		×	×			×	×	×	×	×	×	×	×	×	×	×	×	×		×	×	×	×			×	×	×		×	×	×	×		×
Apus melba	×		×	×	×	×	×	×				×	×			×	×	×		×	×		×		×	×	×	×		×	×	×	×	×		
Colius colius	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×
C. indicus	×	×	×	×	×	×	×	×	×	×		×	×			×	×	×	×		×		×		×		×	×	×	×	×	×	×	×		×
Lybius leucomelas	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		×		×		×		×	×	×	×	×	×	×	×		
Geocolaptes olivaceus				×			×	×	×	×		×	×	×	×		×		×	×	×	×	×			×	×	×	×	×	×	×	×		×
Dendropicos fuscescens	×		×	×	×	×	×								×	×	×	×					×				×	×			×			×		
Mirafra sabota	×		×						×				×	×	×	×	×	×	×		×						×	×			×					
Calendula magnirostris	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×			×	×	×	×	×	×	×	×	×	×	
Certhilauda curvirostris	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×			×	×	×	×				×		
C. albescens			×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×
C. albofasciata	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		×		×	×	×	×	×	×	×	×		×
Alaemon burra	×	×	×								×		×					×				×													
Eremopterix verticalis	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×			×	×	×	×	×						
E. australis	×	×					×	×	×	×	×	×	×	×	×	×	×	×	×		×	×	×					×								
Calandrella cinerea	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×			×	×	×	×
C. starkii	×	×			×	×	×					×						×																		
C. sclateri	×	×	×										×			×	×					×	×													
Hirundo albigularis	×		×	×	×				×	×			×	×	×	×	×	×	×		×	×	×			×	×	×		×	×	×	×	×	×	
H. dimidiata			×	×					×		×		×			×	×	×	×		×		×			×	×	×	×	×	×	×	×	×	×	
H. cucullata			×	×			×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×		×	×	×		×	×	×	×	×	×	×
Hirundo spilodera									×	×	×		×	×	×	×	×		×		×															
H. rupestris	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×
Riparia paludicola	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×			×	×	×	×	×	×	×	×	×		
Corvus albus		×		×	×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×			×	×		
C. capensis		×		×	×		×	×				×		×			×		×	×			×		×		×	×	×	×	×	×	×	×	×
C. albicollis				×	×	×		×		×				×	×		×		×	×	×	×	×			×	×	×		×	×	×	×	×	×	
Parus afer	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×			×	×	×	×	×	×		×	×		
Anthoscopus minutus		×		×	×	×	×	×		×	×	×	×	×	×	×	×		×	×	×		×		×	×	×	×	×	×	×	×	×		
Pycnonotus nigricans	×	×	×		×	×	×		×	×			×	×	×	×	×	×			×		×	×			×	×			×	×	×			
Turdus olivaceus	×	×	×	×	×	×	×	×				×		×		×	×	×	×		×	×	×				×	×	×	×	×	×	×			
Monticola rupestris				×				×				×		×							×		×			×	×	×		×	×	×	×			
Oenanthe monticola	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×		×	×	×			
O. pileata	×		×	×	×		×	×	×			×	×	×	×	×	×	×	×	×	×	×	×			×	×					×	×			
Cercomela familiaris	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×			×	×	×	×	×	×	×	×	×	×	×
C. tractrac	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		×		×	×	×				×			
C. sinuata	×			×	×		×	×		×		×	×	×		×	×		×	×	×		×		×	×	×	×	×	×			×	×		×
C. schlegelii	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Myrmecocichla formicivora	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×			×	×		×							
Saxicola torquata				×	×		×	×				×	×	×	×	×	×	×	×		×		×			×	×	×		×			×	×	×	
Cossypha caffra	×	×	×	×	×	×	×	×				×		×	×	×	×	×	×		×		×			×	×	×	×	×	×	×	×	×	×	

TABLE 9—*continued*

GEOGRAPHICAL DISTRIBUTION OF KAROO BIRDS—*continued*

DISTRICT:	Bushman-land	Namaqualand								Upper Karoo																Lower Karoo						Little Karoo						
Species	K	N4	U	Cl1	N1	N2	N3	V	B	BW1	C1	C2	Cn	D	F	H	P	Pr	R	Su1	VW	W	BW2	BW3	Ce3	Cl2	Lg	PA	Su2	Wo3	Ct	L	M	O	Rv2	Sw2
Erythropygia coryphaeus	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×
Eremomela ieteropygialis	×		×			×	×	×	×	×		×	×	×	×	×	×	×			×	×	×		×		×	×	×		×	×	×			
E. gregalis		×		×	×	×	×	×	×			×	×		×		×		×		×	×	×				×	×	×	×	×		×	×	×	×
Sphenoeaeus afer				×				×																		×		×		×			×	×		
Apalis thoraeiea				×				×					×			×							×				×	×			×	×	×	×		
Sylvietta rufeseens	×	×	×	×	×	×	×	×	×			×	×	×	×	×	×		×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×
Euryptila subeinnamomea	×	×		×		×	×	×						×		×	×		×																	
Clstieola subrufieapilla	×	×		×	×	×	×	×	×	×			×	×	×	×		×	×	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×
Prinia peetoralis	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×			×	×	×		×	×	×	×	×	×	×		×	×		×
P. maeulosa				×	×	×	×	×	×	×	×	×	×	×	×		×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
P. flavieans	×	×	×		×				×				×	×		×	×	×																			
P. substriata	×	×	×		×	×	×	×		×		×	×	×	×	×		×		×	×		×					×	×	×		×	×	×	×		
Parisoma subcaeruleum	×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		×	×	×	×		×	×	×	×		×	×	×	×		×
P. layardi		×	×	×	×	×	×	×	×	×		×	×		×		×	×	×		×	×	×			×	×	×	×		×	×				
Bradornis infuseatus	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		×	×	×					×						×		
Slgelus silens				×			×	×		×						×	×	×			×		×					×	×		×	×	×	×	×	×	×
Batis pririt	×	×	×		×	×	×	×		×	×		×			×	×	×			×		×		×		×	×	×		×	×	×	×		×
Stenostira seita		×	×	×	×	×	×	×	×	×		×		×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		
Lanius eollaris	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Malaeonotus zeylonus	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Sturnus vulgaris				×				×				×								×						×	×	×		×	×	×	×	×			
Lamprotornis nitens	×		×			×	×									×	×	×																			
Onychognathus nabouroup	×		×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×		×	×	×			
Spreo bieolor				×	×			×	×	×		×	×	×	×	×	×	×	×	×	×	×	×			×	×	×	×	×	×	×	×	×	×	×	×
Neetarinia famosa				×	×	×	×	×				×		×	×		×		×	×	×		×			×	×	×	×	×	×	×	×	×	×		
N. ehalybea	×	×		×	×	×	×	×		×		×		×			×		×		×		×		×	×	×	×	×	×	×	×	×	×		×
N. fusea	×	×	×	×	×	×	×	×	×		×		×			×	×	×	×		×	×	×				×	×	×								
Zosterops pallidus	×	×	×		×	×	×					×				×	×	×	×																		
Ploeepasser mahali	×		×						×							×	×	×																			
Passer melanurus	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Sporopipes squamifrons	×	×	×				×									×	×	×			×		×	×				×								
Ploeeus velatus	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×					×	×	×		×	×	×	×		
P. eapensis				×	×		×	×				×											×				×	×	×		×	×	×	×	×		
Eupleetes capensis				×			×	×				×															×	×				×	×	×	×		
Amadina erythroeephala	×		×						×				×	×		×	×	×	×				×														
Estrilda astrild	×	×	×	×	×	×	×	×	×			×	×	×	×	×	×	×	×	×	×	×	×				×	×	×	×	×	×	×	×		
Serinus alario		×		×	×	×	×	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	
S. flaviventris	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		
S. albogularis	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Emberiza capensis	×	×		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
E. impetuani	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×				×		×		

nearly as dense can be found in the south (e.g. in the Traka basin north of Klaarstroom (pl. III, fig. 1)). In both these instances, the composition of the avifauna is complicated by the intrusion of species not properly belonging to the Karoo. In the case of the Orange, these are mostly birds of the tropical savannahs (e.g. *Merops hirundineus*, *Rhinopomastus cyanomelas*, *Nilaus afer* and *Lagonosticta senegala*); in the south, of the Winter Rainfall area (e.g. *Apalis thoracica*, *Tchagra tchagra*). But vegetation of this type exists much more widely, as, for instance, along the Dwyka River, on the farms Hillmore (Beaufort West) and Wagenaarskraal (Victoria West) and even in the Richtersveld. Where it occurs, this type of bush is the chief habitat of such forms as *Parisoma subcaeruleum*, *Stenostira scita* and *Batis pririt*; and its presence is probably essential to such species as *Pycnonotus nigricans*, *Turdus olivaceus*, *Cossypha caffra*, *Prinia substriata* and *Zosterops* spp.; and perhaps also to *Streptopelia capicola*, *S. senegalensis* and *Nectarinia chalybea*. Winterbottom & Skead (1962) classify it as a distinct habitat.

An additional intrusive element into the Karoo is a northern component, not dependent upon the last-mentioned habitat but restricted for the most part to the north-east corner of our area. Examples are *Mirafra sabota* (map 20), *Prinia flavicans*, *Hirundo spilodera*, *Amadina erythrocephala*, *Sporopipes squamifrons*, *Passer motitensis* and *Serinus atrogularis*, though *Sporopipes* occurs as far west as Banken and Vioolsdrif, western Bushmanland, *Serinus* to the Orange River mouth and *Amadina* has been visually recorded as far to the south-west as Saldanha Bay.

There is only one published account of bird densities on the Karoo (Winterbottom, 1946), which refers to 194 acres of the Central Upper Karoo at Melton Wold, Victoria West, during summer. To this I can add the results of censuses over 20 acres of Succulent Karoo in Vanrhysndorp in winter. (A much more comprehensive study of the population of Karroid Broken Veld near Klaarstroom is at present in progress but is not considered here.) The gross densities are 2·0 and 1·4 birds per acre, which are surprisingly close together. The most numerous species at Melton Wold were the Lark-like Bunting *Emberiza impetuani* (69) and the Black-eared Sparrow-Lark *Eremopterix australis* (48). The only other species which reached a density of 0·1 per acre were the Mossie *Passer melanurus* and the Yellow Canary *Serinus flaviventris*, though the Chat Flycatcher *Bradornis infuscatus*, White-rumped Swift *Apus affinis* and Rufous-eared Warbler *Prinia pectoralis* approached it closely. The Vanrhynsdorp figures are too small to be reliable but the most numerous species was the Spike-heeled Lark *Certhilauda albofasciata* (13), of which only fifteen were counted in the much bigger acreage at Melton Wold.

These results may be compared with Dixon's (1959) for desert scrub in Texas, where he found 10–15 and 30–31 territorial males per 100 acres. Dixon gives no formula for estimating absolute densities, but his figures should be at least doubled to obtain them. Even if this is done, it will be noted that the winter figures for South Africa (140 birds per 100 acres) are higher than Dixon's highest.

Of the 11 of Acocks' Karoo types and five of his False Karoo types which occur within the boundaries of the western Cape, adequate data for analysis of the avifauna, even in a preliminary way, exist for only nine: Strandveld (E11 of Winterbottom & Skead), Karroid Broken Veld (E3), Central Upper Karoo (E4), Arid Karoo (E6), Succulent Karoo (E8), Orange River Broken Veld (E9), Namaqua Broken Veld (E10), False Upper Karoo (E13) and False Arid Karoo (E12). It may be noted, however, that these types, between them, occupy more than two-thirds of the area of Karoo within our limits.

Of these types, Strandveld, as indicated above, may be regarded avifaunistically as a transition type between Karoo and Winter Rainfall. No fewer than twelve species, ten regular and two dominant, do not appear in any other list for Karoo habitats but eleven of them appear in one or more of the Winter Rainfall lists. Statistical analysis confirms the distinctness of the Strandveld from other Karoo habitats. A fuller treatment of six of these habitats (Strandveld, Karroid Broken Veld, Central Upper Karoo, Arid Karoo, Succulent Karoo, Namaqua Broken Veld and False Upper Karoo) has been published elsewhere (Winterbottom, 1966*e*).

Although each habitat has its peculiarities (table 11), the following species, each of which occurs in the lists for at least six habitats, can be looked upon as characteristic Karoo birds, those marked * being dominant in at least four habitats:

Melierax musicus, *Falco tinnunculus*, *Eupodotis vigorsii*, *Pterocles namaqua*, *Columba guinea*, *Streptopelia capicola*, *S. senegalensis*, *Oena capensis*, *Lybius leucomelas*, *Calendula magnirostris*, *Certhilauda curvirostris*, *C. albescens*, *C. albofasciata*, *Eremopterix verticalis*, *Calandrella cinerea*, *Bradornis infuscatus*, *Oenanthe monticola**, *Cercomela schlegelii**, *C. familiaris*, *C. tractrac*, *Myrmecocichla formicivora**, *Erythropygia coryphaea**, *Sylvietta rufescens*, *Cisticola subruficapilla*, *Prinia pectoralis*, *P. maculosa**, *Hirundo rustica*, *H. rupestris*, *Lanius collaris**, *Malaconotus zeylonus**, *Parus afer*, *Corvus albus**, *Spreo bicolor*, *Nectarinia fusca*, *Passer melanurus**, *Serinus alario*, *S. flaviventris**, *S. albogularis**, *Emberiza impetuani**, and *E. capensis**.

Almost as characteristic (present in five lists) are:

Buteo rufofuscus, *Falco rupicoloides*, *Merops apiaster*, *Colius colius*, *Pycnonotus nigricans* (if regarded as conspecific with *P. capensis*, this species belongs to the preceding group), *Oenanthe pileata*, *Onychognathus nabouroup* and *Nectarinia famosa*.

The longer list of 'characteristic Karoo birds' used for table 10, which was more subjectively compiled, includes all these species plus others which are too rare, or too limited in distribution, to find a place in table 11.

Each Karoo habitat has between 40 and 64 dominant and regular species, of which 7–17 are dominant. The full lists are set out in table 9. They belong to 30 families, 12 passerine and 18 non-passerine. The dominant family is again the Muscicapidae, with 26 species, of which 6 belong to Muscicapinae, 11 to the Turdinae and 9 to the Sylviinae. Other prominent families are the Alaudidae (9 species), Ploceidae and Fringillidae (6 each).

Within single habitats, the Muscicapidae vary from 9 species in False

TABLE 10

ECOLOGICAL DISTRIBUTION OF CHARACTERISTIC KAROO BIRDS

Species	25	26	27	28	29	30	31	32	33	34	35	36	39	40
Sagittarius serpentarius ..		×	×		×	×	×					×		
Gyps fulvus		×				×		×				×		×
Falco peregrinus.. ..						×	×					×		
F. biarmicus		×	×	×	×	×	×	×	×	×		×	×	
F. rupicoloides			×		×	×	×	×	×		×	×	×	×
F. tinnunculus	×	×	×	×	×	×	×	×	×	×	×	×	×	
Aquila rapax			×									×		
Polemaetus bellicosus ..		×	×	×	×	×		×	×		×	×	×	
Circaetus pectoralis ..		×	×		×						×	×		
Buteo rufofuscus ..		×	×	×	×	×	×	×	×	×	×	×		
Melierax musicus ..		×	×	×	×	×	×	×	×	×	×	×	×	×
Circus maurus				×			×				×			
Francolinus africanus ..		×	×	×	×		×		×	×	×	×		
Anthropoides paradisea ..		×	×			×						×		
Otis kori		×			×	×	×	×	×		×	×	×	×
Otis ludwigii			×			×						×		
O. denhami		×	×		×			×		×	×	×	×	×
Eupodotis vigorsii ..		×	×		×	×	×	×			×	×	×	×
E. caerulescens												×		
Afrotis afra		×	×	×	×	×	×	×	×	×	×	×		×
Burhinus capensis ..	×	×	×		×	×	×	×	×	×	×	×		×
Cursorius rufus		×	×		×	×		×	×		×	×		×
Rhinoptilus africanus ..		×	×		×	×	×	×	×			×		×
Pterocles namaqua ..		×	×	×	×	×	×	×	×	×	×	×	×	×
Columba guinea.. ..	×	×	×	×	×	×	×	×	×		×	×	×	×
Streptopelia capicola ..	×	×	×	×	×	×	×	×	×	×	×	×		×
S. senegalensis	×	×	×	×	×	×	×	×	×	×	×	×		×
Oena capensis	×	×	×	×	×	×	×	×	×	×	×	×		
Tyto alba		×	×		×	×			×			×		
Bubo africanus	×	×	×		×	×	×	×	×	×		×		×
Caprimulgus pectoralis ..		×	×							×				
C. rufigena		×	×		×	×	×				×	×		×
Apus barbatus		×	×		×	×	×	×		×	×	×		×
A. caffer	×	×	×	×	×	×	×	×	×	×	×	×		
A. affinis	×	×	×	×	×	×		×	×		×	×		×
A. melba	×	×	×	×	×	×	×	×	×	×		×		
Colius colius	×	×	×	×	×	×	×	×	×	×		×		×
C. indicus	×	×	×		×	×				×		×		×
Lybius leucomelas ..	×	×	×	×	×	×	×	×	×		×	×		×
Geocolaptes olivaceus ..	×	×	×	×	×		×				×	×		
Dendropicos fuscescens ..	×	×						×	×			×		
Mirafra sabota		×	×		×			×			×	×		×
Calendula magnirostris ..		×	×	×	×	×	×		×	×	×	×	×	
Certhilauda curvirostris ..		×	×	×	×	×	×	×	×	×	×	×	×	×
C. albescens		×	×	×	×	×	×		×	×	×	×		
C. albofasciata		×	×	×	×	×	×	×	×		×	×	×	×
Alaemon burra					×								×	
Eremopterix verticalis ..		×	×	×	×	×	×	×	×			×	×	×
E. australis		×	×	×	×	×	×	×			×	×	×	×
Calandrella cinerea ..		×	×	×	×	×	×	×	×	×	×	×	×	×
C. sclateri					×	×		×				×		×
C. starki					×								×	

Species	25	26	27	28	29	30	31	32	33	34	35	36	39	40
Hirundo albigularis ..	×	×	×	×	×	×	×	×		×	×	×		×
H. dimidiata	×	×	×	×		×	×	×		×				
H. cucullata	×	×	×	×	×	×	×	×	×	×	×	×		×
H. spilodera			×		×						×	×		
H. rupestris	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Corvus albus		×	×	×	×	×	×	×	×	×	×	×	×	×
C. capensis		×	×	×	×	×	×		×					
Parus afer	×	×	×	×	×	×	×	×	×	×	×	×		×
Anthoscopus minutus ..		×	×	×	×	×	×		×	×	×	×		×
Pycnonotus nigricans ..		×	×		×	×	×	×	×		×	×		×
Turdus olivaceus ..	×	×	×	×	×	×	×	×	×	×	×	×		
Monticola rupestris ..	×	×	×	×										
Oenanthe monticola ..		×	×	×	×	×	×	×	×		×	×	×	×
Oe. pileata		×	×	×		×	×	×	×	×	×	×		×
Cercomela familiaris ..	×	×	×	×	×	×	×	×	×	×	×	×		×
C. tractrac		×	×		×	×	×	×	×	×	×	×	×	×
C. sinuata		×	×	×	×	×	×			×		×	×	
C. schlegelii		×	×	×	×	×	×	×	×	×	×	×	×	×
Myrmecocichla formicivora			×	×	×	×	×	×	×	×	×	×		×
Erythropygia coryphaea ..	×	×	×	×	×	×	×	×	×	×	×	×		×
Eremomela icteropygialis		×	×		×	×	×	×	×		×	×		×
E. gregalis		×	×	×	×	×	×		×		×	×		
Sylvietta rufescens ..	×	×	×	×	×	×	×	×	×	×	×	×		×
Euryptila subcinnamomea									×			×		
Cisticola subruficapilla ..	×	×	×	×	×	×	×	×	×	×	×	×		
Prinia pectoralis ..		×	×	×	×	×	×	×	×	×	×	×	×	×
P. maculosa	×	×	×	×	×	×	×		×	×	×	×		
P. flavicans					×			×				×		
P. substriata	×	×	×	×		×	×				×			
Parisoma subcaeruleum ..	×	×	×	×	×	×	×	×	×	×	×	×		×
P. layardi		×	×	×	×		×	×	×	×	×	×		
Bradornis infuscatus ..		×	×	×	×	×	×	×		×	×	×	×	×
Sigelus silens	×	×	×			×	×			×		×		×
Batis pririt	×	×	×		×	×	×	×	×			×		×
Stenostira scita	×	×	×	×	×	×	×		×		×	×		
Lanius collaris	×	×	×	×	×	×	×	×	×	×	×	×		×
Malaconotus zeylonus ..	×	×	×	×	×	×	×	×	×	×	×	×		×
Onychognathus nabouroup		×	×	×	×	×	×	×	×		×	×		
Spreo bicolor	×	×	×	×	×	×	×			×	×	×		×
Nectarinia famosa ..	×	×	×	×		×	×		×	×		×		
N. chalybea	×	×	×	×		×	×		×	×		×		
N. fusca		×	×		×	×	×	×	×		×	×		×
Passer melanurus ..	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Sporopipes squamifrons ..			×		×	×		×				×		×
Amadina erythrocephala ..					×	×		×			×	×		×
Serinus alario	×	×	×	×	×	×	×		×	×	×	×		×
S. flaviventris		×	×	×	×	×	×	×	×	×	×	×	×	×
S. albogularis	×	×	×	×	×	×	×	×	×	×	×	×	×	
Emberiza capensis ..	×	×	×	×	×	×	×	×	×	×	×	×		
E. impetuani		×	×	×	×	×	×	×	×	×	×	×	×	×

Note.—Numbers refer to Acocks' habitats.

TABLE 11

DOMINANT AND REGULAR BIRDS IN SOME KAROO HABITATS

Species	KBV	CUK	AK	SK	ORBV	Str.	FUK	FAK	NBV
Elanus caeruleus						R			
Buteo rufofusceus		D	R	R				R	D
Melierax musicus	R	D	R	R	R				D
Falco biarmicus		R							
F. tinnunculus	R	D	R	R	R		D	R	R
F. rupicoloides			R		R		R	R	R
Francolinus africanus			R			R	R		
F. capensis						R			
Anthropoides paradisea							D		
Otis denhami			R		R				
Eupodotis vigorsii		R	R	R	R		R	D	
Afrotis afra			R		R	R			
Burhinus capensis					R	R		R	
Vanellus coronatus						R			
Cursorius rufus			R						
Rhinoptilus africanus					R				
Pterocles namaqua	R	R	D	R	R		R	R	R
Columba guinea	R	R	D	R				R	R
Streptopelia capicola	D	R	R	R	R	D	R	R	R
S. senegalensis	R	R	R		R	R		R	R
Uena capensis		R	R	R	R	R		R	R
Merops apiaster	R		R			R		R	R
Opupa epops						R			
Bubo africanus					R				
Caprimulgus rufigena								R	
C. tristigma									R
Colius colius		R	R		R	D			R
Lybius leucomelas	R	R			R		R	R	R
Geocolaptes olivaceus								R	
Apus barbatus		R						R	
A. caffer		R	R		R			R	
A. affinis	R	R	R		R		R		
Mirafra sabota			R		R		R	R	
M. apitata							R		
Calendula magnirostris	R	R	D	R		R	R	D	R
Certhilauda curvirostris	R	D	D	R	R	R	R	D	
C. albescens	R	R	R	D		D		R	R
C. allobasciata	R	D	D	R	D		D	D	
Eremopterix verticalis	R	R	R	R	R		R		R
E. australis		R	R					R	
Alaemon burra			R						
Calandrella cinerea	R	R	D	R				R	R
C. starki			R						
Pycnonotus capensis	R					D			R
P. nigricans	R	R			R		R		R
Parisoma subcaeruleum	R	R				R		R	
P. layardi			R			R			
Bradornis infuscatus	R	R	D	R	D		R	D	
Sigelus silens	R	R				R			
Batis pririt	R								
Stenostira scita	R	R						R	
Turdus olivaceus		R							
Oenanthe monticola	R	D	D	R	D		D	D	D
O. pileata		R		R	R			R	R
Cercomela schlegelii	D	D	D	D	R		D	D	D

Species	KBV	CUK	AK	SK	ORBV	Str.	FUK	FAK	NBV
C. familiaris	R	R		R	R		R	R	R
C. tractrac		R	D	R	R		R	R	R
C. sinuata		R					R		
Myrmecocichla formicivora		D	R	R	R		D	D	D
Saxicola torquata						R			R
Cossypha caffra						D			
Erythropygia coryphaeus ..	D	D	R	R	R	D	D	D	R
Eremomela icteropygialis ..		R			R				
E. gregalis	R	R	R					R	
Apalis thoracica						D			
Sylvietta rufescens ..	R	R	R	R		D		R	R
Cisticola subruficapilla ..	R	R	R	R		D		R	R
Prinia pectoralis	R	D	R	R	R		D	D	
P. maculosa	D	R	R	D		D		R	D
P. flavicans					R				
P. substriata	R	R						R	
Hirundo rustica	R	R	R		R	R	R	R	
H. albigularis	R	R						R	
H. cucullata	R	R					R	R	
H. spilodera		R					D	R	
H. rupestris	R	R	R	R	R		R	R	R
Lanius minor					R				
L. collaris	D	D	R	D	D	D	D	D	D
Malaconotus zeylonus ..	R	R	R	D	D	D	D	R	D
Parus afer	R	R	R	R		R	R	R	R
Anthoscopus minutus ..	R					R		R	
Corvus albus	D	D	R	D		R	D	D	D
C. capensis									R
C. albicollis		R							
Sturnus vulgaris						R			
Creatophora cinerea ..						R			
Onychognathus nabouroup ..		R	R		R			R	R
Lamprotornis nitens ..					R				R
Spreo bicolor	R	D		R		R	D	D	
Zosterops pallida					R				
Z. virens						R			
Nectarinia famosa ..	R	R		R		R			R
N. chalybea	R			R		D			R
N. fusca	R	R	R	R	D			R	R
Philetarius socius					D				
Plocepasser mahali ..					R			R	
Ploceus capensis						R			
P. velatus		R							
Euplectes capensis ..						R			
Passer melanurus	D	D	D	D	D	D	D	D	D
Serinus alario	R	R	R	R			D		R
S. atrogularis					R				
S. flaviventris	R	R	D	D	R	D	R	D	R
S. albogularis	R	D	D	R	R	D	D	D	D
Emberiza impetuani ..	R	D	D	R	D		D	D	R
E. capensis	R	D	R	D		D	R	R	D
Totals: Dominant ..	7	17	14	9	9	17	17	17	13
Regular ..	44	47	40	32	40	27	23	41	34
Total ..	51	64	54	41	49	44	40	58	47

Upper Karoo to 20 in Central Upper Karoo. It is curious to note that not a single species of the Muscicapinae appears in the list for Namaqua Broken Veld; and, whereas in the Winter Rainfall habitats, it was the Sylviinae which provided the largest number of species, in the Karoo it is the Turdinae.

Man-made Habitats

The extent of habitats directly due to man varies very much from one part of the area to another. In the south-west Cape, and especially in the vicinity of Cape Town, such habitats occupy most of the country except the mountains; on the other hand, in the Richtersveld, their extent is virtually nil. I do not here consider habitats indirectly due to man, such as the extension of the Karoo brought about during the last 400 years by overgrazing; nor the aquatic habitats created by dams and weirs, the avifauna of which does not differ significantly from natural waters except in being poorer, especially when the artificial waters are newly made.

It has long been known that the usual effect of human interference with the natural habitat has been to reduce the number of species of birds present but to increase the number of individuals.* This is due to the simplification of the natural communities; and its effects in respect of number are well shown in the results of my transect counts of birds from the train between Southfield and Cape Town. I have also made other counts from trains and cars in the Winter Rainfall area and on the Karoo. The sets of data are compared, month by month, in table 12, from which it is clear that, except in early summer, suburban areas hold a much denser bird population than the countryside as a whole and that the density of birds in the Winter Rainfall area is roughly double that in the Karoo.

Table 12

TRANSECT COUNTS IN WESTERN CAPE: BIRDS/MILE

Area	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Southfield—Cape Town	12·6	15·2	13·5	20·8	21·9	22·0	21·5	26·3	23·0	20·1	16·9	14·4
Other W.R. counts ..	4·4	6·8	6·4	7·9	7·2	8·2	5·7	9·6	8·8	8·8	10·3	11·7
Karoo counts	3·4	3·7	2·1	2·6	3·7	3·2	2·7	3·1	1·6	2·2	5·9	4·9

Note.—The Karoo figures include counts made in Karoo country extra-limital to the area of this check list.

Man-made habitats, as considered here, fall into two groups, woodland and open country, with some transitional habitats between the two. The woodland, of oak, pine, eucalyptus and alien acacias, is largely confined to the Winter Rainfall area. It has been inadequately studied, but the avifauna of pine and eucalyptus plantations is extremely poor, both in numbers and species, even along the edges, which are normally a rich woodland habitat. This appears to be in contrast, as far as eucalyptus goes, with the situation in California, where Robertson (1931) recorded 38 species using these trees, 17 using them as nest sites and no less than 11 eating the seeds.

* This presupposes that human predation is not excessive; where it is, of course, the generalization does not apply—e.g. transect counts over 1,000 miles in Italy in October–November 1961 gave an average of only 4·6 birds per mile, the corresponding figure for England being 20·8.

The avifauna of the acacia belts ('wattles', rooikrantz, Port Jackson—*Acacia saligna* and *A. cyclops*, H6 of Winterbottom & Skead) is also somewhat impoverished in species but those that are present are often abundant. There are few oak woods of any extent, these trees being mostly planted in avenues, hedges and gardens; and this habitat will not, therefore, be further considered here.

The wattle plantations constitute the best known of the woodlands of alien trees, as well as having the richest avifauna. Nevertheless, it must be borne in mind that true woodland is an alien habitat in the western Cape, the natural habits being open country, scrub and forest. Even the Macchia, the poorest of the Winter Rainfall habitats, supports thirty regular species, of which eleven are dominant. As against this, wattles have only twenty-eight regular species, eleven being dominant. They are:

Elanus caeruleus, *Francolinus capensis*, **Streptopelia capicola, Streptopelia senegalensis,** *Colius striatus*, *Colius colius*, *Lybius leucomelas*, **Pycnonotus capensis,** *Turdus olivaceus*, **Cossypha caffra,** *Apalis thoracica*, **Prinia maculosa,** *Sigelus silens*, **Lanius collaris,** *Laniarius ferrugineus*, **Malaconotus zeylonus,** *Corvus albus*, **Sturnus vulgaris,** *Spreo bicolor*, **Zosterops virens,** *Nectarinia famosa*, *Nectarinia chalybea*, *Promerops cafer*, **Ploceus capensis,** *Euplectes capensis*, *Estrilda astrild*, **Passer melanurus,** *Serinus flaviventris*.

This is a curious mixture of forms, including forest species like *Turdus olivaceus* and *Laniarius ferrugineus*, as well as others more characteristic of the sclerophyll. Three of the dominant species (*Streptopelia senegalensis*, *Sturnus vulgaris*, *Ploceus capensis*) are not dominant in any of the indigenous bush types. They represent fourteen families, ten of them passerine. The families best represented are the Muscicapidae (5 species, 1 Muscicapinae, 2 each Turdinae & Sylviinae), the Ploceidae (4 species, 2 Ploceinae, 1 each Estrildinae & Passerinae) and the Laniidae (3 species).

Though much more restricted in extent and less thoroughly studied, a word may be added about the plantations of black wattle *Acacia mollissima* (H5) at Ruiterbos, Mossel Bay District. Here the avifauna is derived from that of the Temperate Forest and an astonishing number of forest species have adapted themselves to this alien vegetation. They include *Cossypha dichroa*, *Dryoscopus cubla* and *Oriolus larvatus*, which are not known, even from true forest, farther west; as well as *Muscicapa adusta*, *Batis capensis*, *Terpsiphone viridis*, *Turdus olivaceus*, *Cossypha caffra*, *Laniarius ferrugineus*, *Estrilda melanotis* and *Serinus scotops*, which are more widely distributed. It will be noted, however, that only four of these species appear in the wattle list above. It may be added that the *Muscicapa*, *Batis*, *Turdus*, *Cossypha caffra*, *Laniarius* and *Estrilda* were all recorded in black wattle in Bain's Kloof in May 1959; together with *Serinus leucopterus*, a species of dense protea bush.

There are thirty-two cards for pine plantations in the Cape Bird Club files and the poverty of this environment is brought out by the list of four dominant and four regular species:

Buteo rufofuscus, Streptopelia capicola, *Indicator indicator, Corvus albicollis, Onychognathus morio,* **Zosterops virens,** *Serinus tottus* and **S. canicollis.**

Of these, the *Buteo, Corvus, Onychognathus* and *Serinus tottus* are probably merely stragglers from the more open mountain-sides adjoining the plantations, most of which are in mountainous country.

There are only twelve cards for gum plantations and the only species occurring on more than two of them are *Streptopelia capicola, Zosterops virens* and *Serinus canicollis,* also dominant species in pines.

Although pure stands of single alien tree species are usually unfavourable to bird life, stands of mixed exotics (H1) may be less so. Examples are the mixed woodlands of conifers, oaks, gums, poplars and other species near the old Manor House at Tokai and near the Forest Station at Newlands. Forty-five lists exist in the Cape Bird Club files for this and similar woodlands in the Winter Rainfall area. The dominant and regular species are:

Francolinus capensis, Streptopelia semitorquata, **Streptopelia capicola,** *Streptopelia senegalensis, Colius striatus, Pycnonotus capensis, Andropadus importunus, Muscicapa adusta, Batis capensis, Terpsiphone viridus,* **Turdus olivaceus, Cossypha caffra,** *Prinia maculosa,* **Laniarius ferrugineus,** *Malaconotus zeylonus, Onychognathus morio,* **Zosterops virens,** *Nectarinia famosa, Nectarinia violacea, Nectarinia chalybea, Ploceus capensis, Fringilla coelebs,* **Serinus canicollis,** *Emberiza capensis.*

It will be noted that, in point of fact, this assemblage of six dominant and twenty regular species is more impoverished than that for wattles; and that it is further biased towards forest forms, for in addition to the *Turdus* and *Laniarius* of the wattles list, it includes also *Andropadus importunus, Muscicapa adusta, Batis capensis* and *Terpsiphone viridis*; and *Turdus* and *Laniarius* are here dominant, not just regular. The species fall into 11 families, of which eight are passerine, those best represented being the Muscicapidae, with six species (3 Muscicapinae, 3 Turdinae, 1 Sylviinae) and the Columbidae, Nectarinidae and Fringillidae, with 3 each.

Intermediate between woodland and open country are gardens (I 14 of Winterbottom & Skead), which, in effect, reproduce the 'woodland edge' habitat on an extended scale. They suffer from their floristic composition, being mostly of alien species; and from the activities of man and his parasites (especially domestic cats). Nevertheless, they contain a surprising variety of birds. An inquiry organized by the writer for the Cape Bird Club in 1955–6 produced 120 reports, mostly from the Cape Peninsula but including gardens from as far afield as Swellendam in the east, Ceres in the north-east and Piketberg in the north. A full report has been produced (Winterbottom, 1956*d*) and the detailed data are filed in the Percy FitzPatrick Institute of African Ornithology. Altogether, 113 species were recorded, of which 16 occurred in over 50% of the gardens and a further 4 in 40–50%. The list of dominant and regular species is based on this and subsequent data.

Ardeola ibis, Burhinus capensis, Larus dominicanus, Larus novaehollandiae,

Streptopelia semitorquata, **Streptopelia capicola, Streptopelia senegalensis,** *Cuculus solitarius*, *Upupa epops*, *Colius striatus*, *Colius colius*, *Apus barbatus*, *Apus melba*, *Apus caffer*, **Motacilla capensis,** *Pycnonotus capensis*, *Turdus olivaceus*, **Cossypha caffra,** *Prinia maculosa*, *Hirundo rustica*, *Hirundo cucullata*, *Hirundo rupestris*, **Lanius collaris,** *Laniarius ferrugineus*, **Malaconotus zeylonus,** *Corvus albus*, **Sturnus vulgaris, Onychognathus morio,** *Spreo bicolor*, **Zosterops virens,** *Nectarinia famosa*, *Nectarinia chalybea*, *Ploceus capensis*, *Estrilda astrild*, **Passer melanurus,** *Fringilla coelebs*, **Serinus canicollis** (11 dominant, 26 regular).

The assembly covers 19 families, 11 of them passerine, and 7 are represented by 3 species each, a curious pattern shown by no other environment analysed here.

The total of 37 species, 11 dominant, emphasizes the relatively rich avifauna of this habitat—richer than that of Macchia. The species are drawn from three sources, Sclerophyll (*sensu lato*), Forest and Aquatic habitats. Detailed studies of a single garden habitat have been published (Winterbottom, 1962*d*, 1966*f*) and a comparative study of the birds in this habitat, in Rhodesian townships and in some types of indigenous bush (Winterbottom, 1960*g*) has shown that the number of dominant species in this garden habitat is less than half that in the indigenous bush (17 to 35); but that the proportions between the different groups classified by food (insect-eaters, seed-eaters, fruit-eaters, birds of mixed diet) are virtually unaltered, though predators have been eliminated (table 13). Markus (1966) found a similar situation in Pretoria.

There is inadequate information about garden birds on the Karoo, but the species indicated on p. 31 as favouring dense streamside cover seem to provide the chief source. To them can be added the Masked Weaver *Ploceus velatus*, the Mossie *Passer melanurus* and the Fiscal *Lanius collaris*. Fruit attracts the Pied Barbet *Lybius leucomelas* and the Pale-winged Starling *Onychognathus nabouroup*.

Another intermediate habitat is orchards, which have trees like woodland but little undergrowth. Winterbottom & Skead (1962) divide them in two, citrus orchards (I 9) and orchards of deciduous fruits (I 8). Unfortunately, only seven Field Cards are available in the Cape Bird Club files.

TABLE 13

PERCENTAGE COMPOSITION OF DOMINANT SPECIES IN EACH FOOD TYPE

Area	Predators	Insect-eaters	Seed-eaters	Fruit-eaters	Mixed Diet
Sasmeer Township ..	0	41	24	11	24
Indigenous bush on Flats..	6	42	23	6	23

(Data from Winterbottom, 1960*g*.)

A third 'intermediate' habitat is vineyards (I 7). For these, 26 Field Cards exist, mostly due to my colleague Mrs. M. K. Rowan, who filled them

in in the course of her studies of frugivorous birds. The list of 4 dominant and 19 regular species is:

Ardeola ibis, *Elanus caeruleus*, *Francolinus capensis*, *Numida meleagris*, **S. capicola, S. senegalensis,** *Colius striatus*, *Upupa epops*, *Turdus olivaceus*, *Motacilla capensis*, *Dicrurus adsimilis*, *Lanius collaris*, **Malaconotus zeylonus,** *Sturnus vulgaris*, *Spreo bicolor*, *Zosterops virens*, **Passer melanurus,** *Ploceus capensis*, *P. velatus*, *Estrilda astrild*, *Vidua macroura*, *Serinus tottus*, *S. canicollis*.

In view of the small number of records on which it was based, too much importance should not be attached to this list.

In the category of open country are included such habitats as pastures (I 2), lucerne fields (I 5), grainfields (I 3), ploughed land (I 1) and market gardens (I 13). The avifauna of these habitats is chiefly derived from that of the opener parts of surrounding indigenous bush; but certain species have found some of these habitats so favourable that they now occupy them almost exclusively; while others have undoubtedly been able to increase in numbers to an extent that would have been impossible without man's activities. It appears probable that certain species are wholly dependent on such environments, the existence of which has been the reason why they have been able to penetrate the western Cape. For instance, the Fan-tailed Warbler *Cisticola juncidis* was unknown in the area when Vincent compiled his *Check list* (published, 1952); and that it was not found by Lynes (1935) when he explored the south-west Cape specially for species of this genus in 1934 is strong presumptive evidence that it had not reached there then. The first authentic record was in 1950 (Feely, 1950), though MacLeod (1952) believes that it had reached the south-west Cape earlier. It is now widely distributed in pastures, cornfields and lucerne lands, not only in the Winter Rainfall area but also in at least some places on the Karoo (e.g. Klaarstroom, Montagu, Vioolsdrif, Fraserburg Road).

Also inhabiting lucerne lands on the Karoo is another Cisticola, *C. aridula*, which I have collected at Beaufort West and Klaarstroom; it is not otherwise known south of the northern Cape.

The invasion of the western Cape by the Cattle Egret *Ardeola ibis* is probably another example. Though it has not been documented in the same way as in the eastern Cape (Skead, 1952), Stark & Sclater (1900–6) report only a single record from the Cape Town area and Gill (1952) notes that it first bred on the Berg River in 1925 and in the Peninsula in 1931 (summary in Winterbottom, 1964*c*).

The European Starling *Sturnus vulgaris* is another species whose distribution seems to depend on man-made environments. It spread across the farming areas of the south-west Cape pretty rapidly, but was held up for eleven years by the big block of indigenous forest between Knysna and Humansdorp, only reaching Port Elizabeth, where it is now numerous, in 1955, Grahamstown in 1958 and King William's Town in 1961; and it has only recently begun to penetrate the Karoo (Winterbottom & Liversidge, 1954; McLachlan, 1955;

Winterbottom, 1957*c*, 1958*g*, 1959*e*, 1964*e*; Blignaut, 1958; Skead, 1962; Liversidge, 1962). The House Sparrow *Passer domesticus* is also dependent on human settlement (Winterbottom, 1961*a*, 1964*e*; Cole, 1962; Clancey, 1963*c*; Rowan, 1964; Schmidt, 1965).

Other species which have greatly profited by man's clearance of the land include the Thick-billed and Red-capped Larks *Calendula magnirostris* and *Calandrella cinerea*, the Tawny Pipit *Anthus novaeseelandiae*, the Mossie *Passer melanurus* and the Crowned Plover *Vanellus coronatus*; while the creation of dams on the Karoo has perhaps been the factor enabling the Blacksmith Plover *V. armatus* to extend its range southwards across that habitat into the Winter Rainfall area, where it was first reported in 1939 (Broekhuysen, 1942) and is now widely distributed.

Unfortunately data are inadequate for the detailed analysis of most of these habitats, even in the Winter Rainfall area. Outside it, only lucerne fields are of sufficient extent to be important. They have a limited avifauna of larks (*Calendula magnirostris*, *Calandrella cinerea*); pipits (*Anthus* spp.) and warblers (*Cisticola juncidis*, *C. aridula*, *Prinia maculosa*), with occasional plovers (*Vanellus* spp.); and, as foragers only, Pied Starlings *Spreo bicolor*, Fiscals *Lanius collaris*, storks *Ciconia* spp., swallows *Hirundo* spp. and swifts *Apus* spp.

There is no published data on bird densities in these habitats, but I have available censuses of my own and others made under my supervision at the P.F.I.A.O. Field Courses. Of these, the most substantial relates to pastures, for which censuses aggregating 88½ acres, all in the Bredasdorp District, are available. They relate to the months of September, October and December and comprise 359 birds of 37 species, giving an average of 4·1 birds per acre. The most numerous species is the Red-capped Lark *Calandrella cinerea*, with 71 individuals. Next come the Crowned Plover *Vanellus coronatus* (51), the Tawny Pipit *Anthus novaeseelandiae* (36), the Mossie *Passer melanurus* (28) and the Yellow Canary *Serinus flaviventris* (28). Other species reaching an average of 0·1 per acre are, in order of abundance, the White-throated Seed-eater *Serinus albogularis*, the Cape Weaver *Ploceus capensis*, Kittlitz's Plover *Charadrius pecuarius*, and the Cape Turtle Dove *Streptopelia capicola*.

The absolute density here recorded is closely similar to the figure I obtained over 198½ acres on the Kafue Flats, Zambia (Winterbottom, 1955) and considerably in excess of the populations found in Albany, the Transkei and Basutoland (Skead, 1946; Winterbottom, 1947 and unpublished), which ranged from 0·7 to 1·4 birds per acre; but does not approach the 40 birds per acre found by Lack (1937) in Tanganyika, though the latter was not a really representative sample. Mitchell (1961) found densities of 0·2–0·5 breeding birds per acre in five plots at various stages in the succession from cultivation to prairie in Minnesota; but he omitted to count the numbers of 17 species which used parts of the areas but did not breed there. It is evident from Mitchell's discussion, however, that this was a very impoverished habitat. Graber & Graber (1963) record 1·3–2·9 birds per acre from pastures in

summer in Illinois, using methods directly comparable with those used here; Finzel (1964) found 5·9–17·5 birds per acre in herbaceous communities in Wyoming during the breeding season but this fell to 0·1–1·2 during the post-breeding season (late July—end of September) and to less than 0·1 during the winter.

Within the Winter Rainfall area, the files of the Cape Bird Club contain 196 Field Cards on pastures, 73 on grain fields, 51 on ploughed fields and a few on other open country habitats. The dominant and regular species in the first three habitats are set out in table 14. For pastures, there are 35 species, of which 9 are dominants, almost as many species as for Gardens (37), but with 2 fewer dominants. The list for grain fields numbers 32 (5 dominants) and no fewer than 26 of them occur in the list for pastures too, though not always in the same categories. As might be expected, the avifauna of ploughed lands is a poor one. There are 14 regular and only 1 dominant species. All occur in one or other of the other two lists and all but one in both.

The list for pastures contains representatives of 16 families, 9 of them passerine; for grainfields of 14, 9 passerine; and for ploughed land 9, 7 passerine. The superior adaptability of the passerines to extreme environments is clearly shown. The family represented by most species is the Ploceidae, with 5 (4 each in pastures and grainfields). The Muscicapidae are represented by 4 species, all of which occur in pastures and 3 in each of the other habitats; and the Hirundinidae also by 4, all of which occur in pastures, 2 in grain and none in plough.

Finally, while not exactly a habitat, a word should be said about the influence of telegraph and telephone poles and wires. The poles provide nesting sites for a number of species which might otherwise find suitable sites scarce or entirely absent. This applies especially to the Social Weaver *Philetarius socius*, which has been able to extend its range southwards into treeless areas by utilizing telegraph poles for its nests (Rudebeck, 1956). Other species which commonly make use of the poles are the Pied and Black Crows *Corvus albus* and *C. capensis* and the Mossie *Passer melanurus*. As look-out perches, both poles and wires are widely used by many species of raptors, from the Martial Eagle *Spizaëtus bellicosus* to the Lesser Kestrel *Falco naumanni* and Black-shouldered Kite *Elanus caeruleus*, by the Fiscal *Lanius collaris* and, less regularly, by members of the genus *Cercomela*, especially the Karoo Chat *C. schlegelii*. They are also used as perches by a very wide variety of other birds, amongst the most regular being the various swallows *Hirundo* spp., especially the European *H. rustica*, the European Bee-eater *Merops apiaster*, the Cape Canary *Serinus canicollis*, the Fork-tailed Drongo *Dicrurus adsimilis* and many others.

Except in the Winter Rainfall area, the only permanent, natural aquatic habitat in the western Cape is the Orange River (pl. V, fig. 1); but some of the temporary ones, such as Brandvlei in the Calvinia District, may be of considerable importance in the economy of water birds; and the natural habitats have been enormously augmented by dam-construction, especially in

TABLE 14
DOMINANT AND REGULAR BIRDS IN SOME ARTIFICIAL OPEN COUNTRY HABITATS

Species	Plough	Pasture	Grain
Ardea melanocephala		R	
Ardeola ibis		D	D
Alopochen aegyptiaca		R	
Elanus caeruleus		R	R
Buteo buteo			R
Circus ranivorous			R
Numida meleagris		R	R
Coturnix coturnix			R
Charadrius pecuarius		R	
Vanellus coronatus	R	D	R
Larus novaehollandiae		R	
Streptopelia capicola	R	R	R
S. senegalensis	R	R	R
Oena capensis			R
Upupa epops		R	
Calendula magnirostris	R	D	D
Eremopterix verticalis		R	R
Calandrella cinerea	R	D	R
Motacilla capensis	R	D	R
Anthus novaeholla diae	R	D	R
Macronyx capensis		R	R
Oenanthe pileata	R	R	R
Cercomela sinuata	R		R
Saxicola torquata	R	R	R
Cisticola textrix		R	R
Hirundo rustica		R	R
H. albigularis		R	
H. cucullata		R	R
Riparia paludicola		R	
Lanius collaris	R	D	D
Malaconotus zeylonus		R	R
Corvus albus		R	R
Sturnus vulgaris		D	R
Spreo bicolor	R	D	R
Ploceus capensis	R	R	D
Euplectes orix			R
E. capensis		R	D
Vidua macroura		R	
Passer melanurus	R	D	D
Serinus canicollis		R	
S. flaviventris	R	R	R

recent years. This has undoubtedly led to a considerable extension in the breeding range of some water birds (e.g. Spoonbills *Platalea alba* and Grey Herons *Ardea cinerea* breeding in the Victoria West District, Winterbottom, 1958*e*). On the other hand, the deepening of certain vleis (e.g. Voëlvlei, near Gouda; Brandvlei, near Worcester; and Zeekoe Vlei, near Cape Town) for irrigation or boating has very adversely affected the water-bird population.

The water habitats in the south-west Cape have been the subject of intensive study for many years, though many of the results have not been published. The earliest study was confined to the Palaearctic waders and

European Swallow *Hirundo rustica* (Broekhuysen & Meiklejohn, 1941). The 1952–8 series has been written up by Winterbottom (1960*e*); the Rondevlei situation is revealed in the Warden's Annual Reports (Middlemiss, 1952 onwards); and a study of the tidal Langebaan Lagoon has been published by Liversidge, Broekhuysen & Thesen (1958).

Broadly speaking, aquatic habitats may be divided into two groups, flowing rivers and streams; and static pools, dams and vleis. The former may be further subdivided according to the nature of the banks and the size of the channel—a very broad river, such as the lower Berg River, approximates in its conditions for birds to a static vlei; a rapidly flowing stream, such as the upper Olifants or the Wemmershoek River, has a quite different—and much more restricted—fauna. A few species, of which the Black Duck *Anas sparsa* and perhaps the Giant Kingfisher *Ceryle maxima* are the most notable, are virtually confined to rivers. But our river birds have been inadequately studied and generalizations would be inaccurate. It may be noted, however, that the avifauna of the Orange River is exceedingly poor, probably owing to its heavy burden of silt (Winterbottom, 1959*d*).

Static waters have, generally speaking, a much richer avifauna than flowing waters; and the richness is correlated directly with the extent of the shallows and inversely with the acidity and turbidity of the water. For instance, I attribute the general scarcity of kingfishers on western Cape waters, as compared with those of Zambia, for example, to the turbidity of nearly all Cape rivers, dams and vleis; and the heavy burden of silt present in the water of most Karoo dams is also very unfavourable to bird life. Acid waters, such as dams and reservoirs in the mountains, carry very few birds too. This is probably because such waters do not support the same wealth of invertebrate life as alkaline and neutral waters. There are no published data to support this, but Dr. A. D. Harrison (pers. comm.) states, 'on the whole, I found the fauna densest in the alkaline vleis which were altogether more productive when the algae and water weeds were considered as well'.

Shelter on the shores is another important factor, but it affects different groups to different extents, being of negative significance for the Charadriidae but vital for the Rallidae (except the coot *Fulica cristata* out of the breeding season). The vegetation bordering our vleis has been classified by Schelpe (1959) into seven types, as under:

1. Bare shore
2. Low salt bush
3. Low grass-reeds (2 ft.)
4. Tall reeds (± 6 ft.)
5. Low scrub (less than 20 ft.)
6. Islands of reeds
7. Trees at water's edge

Data are at present inadequate to characterize the birds of each of these habitats, but they are obviously important.

Another important aspect is the depth of the water, the richness of the avifauna varying inversely with the depth (see above), which partly accounts for the sparse bird life found, for instance, on most reservoirs. Correlated with this is the permanence or impermanence of the vlei itself, permanent vleis (e.g. Rondevlei, pl. I, fig. 1) having a somewhat different fauna from temporary vleis (e.g. Rietvlei, pl. I, fig. 2). And a further factor influencing the bird life is the absolute size of the water area—certain species, like the White Pelican *Pelecanus onocrotalus*, White-breasted Cormorant *Phalacrocorax carbo*, Darter *Anhinga anhinga* and Sea Eagle *Haliaeetus vocifer*, are virtually confined to large bodies of water, probably because these alone contain aquatic vertebrates of adequate size to serve as food.

A detailed discussion of the distribution of water birds in the south-western corner of the Winter Rainfall area has already been published (Winterbottom, 1960*e*); and the data on some of the species of Anatidae over the whole continent, with special reference to southern Africa, also exist (Middlemiss, 1958*a*, for *Netta erythrophthalma*; Rowan, 1963*b*, for *Anas undulata*; Winterbottom & Middlemiss, 1960, for *Anas smithii*).

Considering first the avifauna of vleis, these may be divided into permanent (B1 of Winterbottom & Skead) and temporary (B2); and the latter further divided into those of the Winter Rainfall area and those of the Karoo (there are no truly permanent vleis on the Karoo). Permanent vleis have a regular and dominant summer population of 54 species, of which 20 are dominant; temporary Winter Rainfall vleis have 56 regular and dominant summer species, 23 being dominant; and for Karoo vleis the figures are 28 and 8 respectively. It must be added, however, that the summary for the Karoo is based on only 97 lists, 40% of which are from Melton Wold in the summer of 1943–4 (Winterbottom, 1945, 1962*n*). The detailed lists are set out in table 15.

Comparing first the two Winter Rainfall types, 17 dominant and 19 regular species are common to both. Eight species are regular or dominant on permanent vleis but do not appear in the temporary vleis list; and ten are in the temporary vlei list but not the permanent vlei list. Four species dominant on permanent vleis are only regular on temporary vleis; and six dominant on temporary vleis are only regular on permanent vleis. Consideration of the species involved suggests that, generally speaking, those which are more conspicuous on permanent vleis are birds of open water (e.g. *Podiceps cristatus*, *Phalacrocorax carbo*), of reed cover (e.g. *Ardea purpurea*, *Nycticorax nycticorax*, *Bradypterus babaecalus*) or of mud (e.g. *Tringa glareola*); whereas the species which predominate on temporary vleis are most often birds of the water's edge (e.g. *Egretta* spp., *Charadrius pecuarius*, *Cisticola juncidis* and visitors like *Sturnus vulgaris*). Not fitting into any of these explanations are the Lesser Flamingo *Phoenicopterus minor*, regular on permanent but not on temporary vleis; and Red-billed Teal *A. erythrorhyncha*, a dominant bird on temporary vleis but only regular on permanent ones.

Turning now to the Karoo vleis, it is clear from the most cursory glance at table 15 that they resemble the Winter Rainfall temporary vleis more than the permanent ones. This is to be expected; but they differ from all Winter Rainfall vleis in a number of important particulars. Thus none of the Ardeidae species are dominant; the dominant Anatidae are the tadornines *Alopochen* and *Tadorna*, not species of *Anas*; the most frequent species of *Acrocephalus* is *baeticatus* (which does not quite reach regular status), not *gracilirostris* as in the Winter Rainfall habitats; of the eight dominant species, four are not dominant in either of the other divisions and *Charadrius pecuarius* and *Tringa glareola*, the mud-loving Wood Sandpiper, in only one of them; and there are no fewer than six regular species not in the Winter Rainfall temporary vlei list at all.

The birds in the lists fall into seventeen families for permanent vleis (4 passerine), twenty for temporary vleis (6 passerine) and eleven for Karoo vleis (1 passerine); and the big predominance of non-passerine families in these habitats as compared with land habitats is very striking. The following families provide seven species each in one or more habitats: Ardeidae (7, 5 and 2 species respectively), Anatidae (7, 7, 7), and Scolopacidae (7, 6, 6)—all non-passerine families.

It may be noted that for the anatids, the general pattern is for concentration on the larger bodies of water during the dry season and dispersal to smaller pools in the rains. I (Winterbottom, 1960*e*) have suggested that this is connected with breeding; but Mrs. Rowan (1963*a*) has convincingly argued that, for the Yellow-billed Duck *Anas undulata* at least, it is a question of exploiting newly available food resources. The pattern is not confined to the Winter Rainfall area, where the bulk of the duck population are species of *Anas*, but is found also among the tadornine species on the Karoo. After the heavy rains of 1962–3, it was noticeable on a trip from Cape Town to Bloemfontein and back in April that the big dams were almost devoid of ducks, whereas many Shelduck *Tadorna cana* and Egyptian Geese *Alopochen aegyptiaca* were to be found on small roadside pools.

The only other aquatic habitat for which data enough exist for even a preliminary list is for reed-beds (B5), in the Winter Rainfall area only. There are only seventy such lists, however, and the nature of the environment makes identification of many of the species so difficult that it is probable that most, if not all, are seriously incomplete. The total number of regular and dominant species is twenty-four, of which only three are dominant—confirmation of the incompleteness of the lists. These species are:

Ardea cinerea, *A. melanocephala*, *A. purpurea*, *Anas undulata*, *Circus ranivorus*, *Limnocorax flavirostra*, *Porphyrio porphyrio*, *Gallinula chloropus*, *Fulica cristata*, *Centropus superciliosus*, *Alcedo cristata*, *Cossypha caffra*, *Acrocephalus baeticata*, *A. gracilirostris*, *Bradypterus babaecalus*, **Cisticola tinniens,** *Prinia maculosa*, *Motacilla capensis*, *Macronyx capensis*, *Spreo bicolor*, **Ploceus capensis,** *Euplectes orix*, *E. capensis*, **Estrilda astrild.**

Among the species obviously underestimated by this method are the

TABLE 15
DOMINANT AND REGULAR VLEI BIRDS

Species	Permanent Vleis	Temporary W.R. Vleis	Karoo Vleis
Podiceps cristatus	R		
P. ruficollis	D	R	
Phalacrocorax carbo	D	R	R
P. africanus	D	D	
Anhinga anhinga	R	R	
Pelecanus onocrotalus	R	R	
Ardea cinerea	D	D	R
A. melanocephala	R	R	R
A. purpurea	R		
Egretta intermedia	R	D	
E. garzetta	R	D	
Ardeola ibis	D	D	
Nycticorax nycticorax	R		
Scopus umbretta			R
Ibis ibis			R
Threskiornis aethiopica	R	R	R
Platalea alba			R
Phoenicopterus roseus	R	R	
P. minor	R		
Alopochen aegyptiaca	R	R	D
Tadorna cana		R	D
Anas undulata	D	D	R
A. capensis	D	D	R
A. erythrorhyncha	R	D	R
A. smithii	D	D	R
Netta erythrophthalma	R	R	
Plectropterus gambensis	R		
Oxyura punctata			R
Haliaetus vocifer		R	
Circus ranivorus	R	D	
Porphyrio porphyrio	R	R	
Gallinula chloropus	D	R	
Fulica cristata	D	D	R
Himantopus himantopus	D	D	R
Recurvirostra avosetta	R	R	R
Charadrius hiaticula	(D)	(D)	
C. alexandrinus	R	R	
C. pecuarius	R	D	D
C. tricollaris	R	R	D
Vanellus armatus	R	R	D
Tringa hypoleucos	(R)		
T. stagnitilis	(R)	(R)	
T. nebularia	(D)	D	D
T. glareola	(D)	R	D
Calidris ferruginea	(D)	(D)	R
C. minuta	(D)	D	R
Philomachus pugnax	(D)	(D)	R
Larus dominicanus	D	D	
L. cirrocephalus			R
L. novaehollandiae	R	D	
Sterna hirundo		(R)	
Chlidonias leucoptera	(D)	(D)	
Ceryle rudis		R	

Species	Permanent Vleis	Temporary W.R. Vleis	Karoo Vleis
Apus barbatus	R	R	
A. melba		R	
Calandrella cinerea		R	
Motacilla capensis	D	D	D
Anthus novaeseelandiae		R	
Acrocephalus gracilirostris	R	R	
Bradypterus babaecalus	R		
Cisticola juncidis		R	
C. tinniens	R	R	
Hirundo rustica	(D)	(D)	
H. albigularis	(R)	R	
H. cucullata	(R)	(R)	
Riparia paludicola	R	R	
Corvus albus		R	
Sturnus vulgaris		R	
Estrilda astrild	R		

Note.—Symbols enclosed in brackets and referring to migrant species indicate that the species falls into that category if summer lists alone are considered.

rallines *Limnocorax*, *Porphyrio* and *Gallinula* and the Swamp Warbler *Bradypterus*. The Red Bishop *Euplectes orix* is often enormously abundant in reeds while it is breeding, but forsakes them for the rest of the year; and the same is true to a lesser extent for the Cape Weaver *Ploceus capensis*.

The species represent ten families and, in contradistinction to the state of affairs in open vleis, half of them are passerines. The best represented family is also passerine, the Muscicapidae, with six species (1 Turdinae, 5 Sylviinae). There are four species of Rallidae, four of Ploceidae (3 Ploceinae, 1 Estrildinae) and three of Ardeidae; but only one anatid.

Migration and Movements

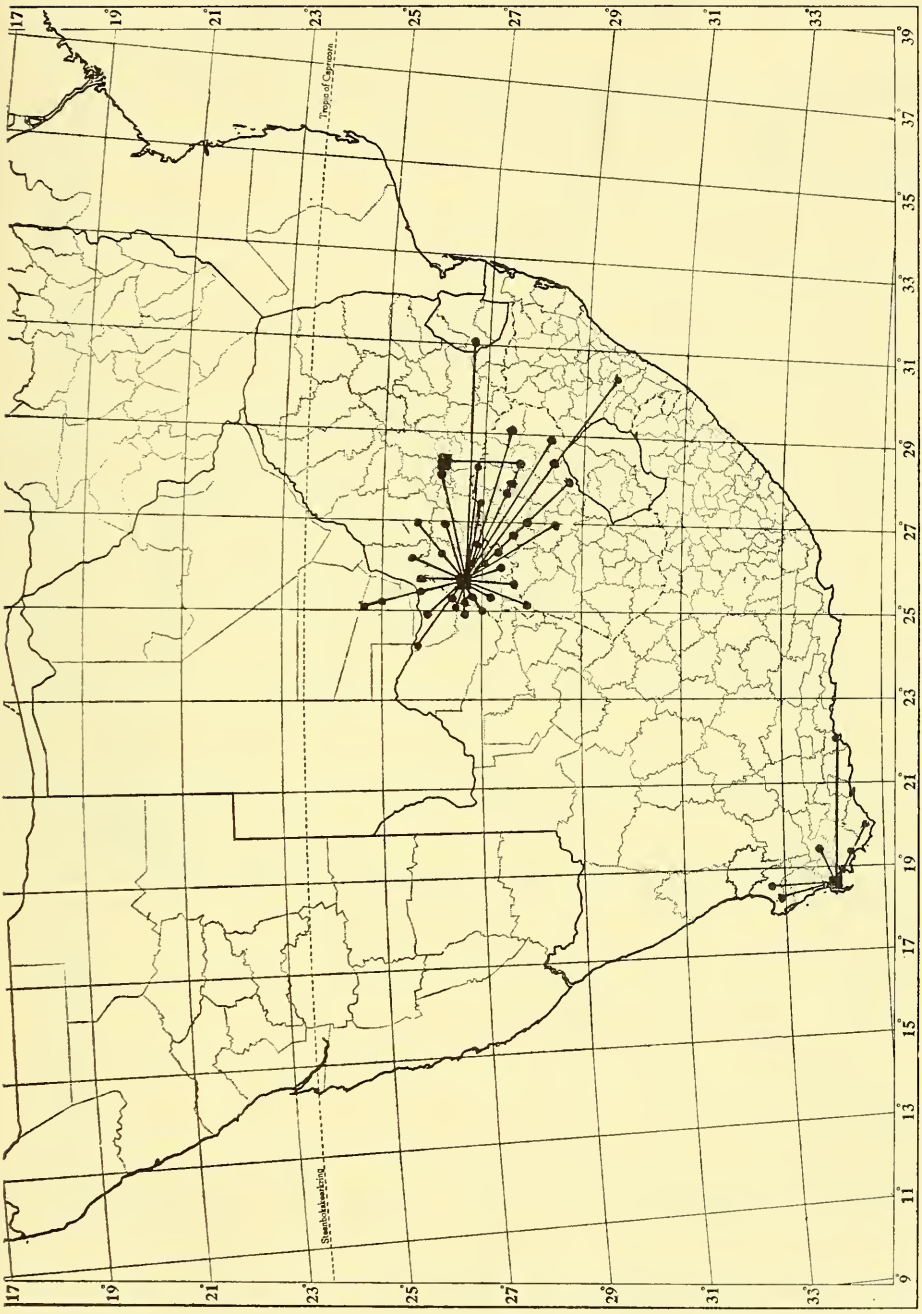
Comparatively little is known about migration and movements within the western Cape, chiefly because most of it is a sparsely populated area without resident ornithologists. In the extreme south-west, a good deal has been done, both by direct observation and by ringing; but little has been learnt about the movements in and through the area further north. Of the Palaearctic-breeding migrants, the most numerous and widely distributed are the European Swallow *Hirundo rustica*, Steppe Buzzard *Buteo buteo vulpinus*, Lesser Kestrel *Falco naumanni*, White-winged Black Tern *Chlidonias leucoptera* and such waders as *Calidris ferruginea*, *C. minuta*, *Philomachus pugnax*, *Charadrius hiaticula*, *Tringa nebularia*, *T. glareola* and *T. stagnitilis*. Unfortunately little is known about where in the Palaearctic these birds breed, though it has recently been shown that most of the swallows come from Asiatic Russia (McLachlan, 1964). Nor is anything much known about the routes they follow to reach their winter quarters. It is considered probable, however, that the same birds follow the same routes to the same places—it has been proved, for example, that individual Little

Stints *Calidris minuta* and other waders return year after year to Rondevlei Bird Sanctuary (Middlemiss, 1961, 1962); and there is circumstantial evidence that Curlew Sandpipers *C. ferruginea* reach the Cape Peninsula via the Langebaan Lagoon of Saldanha Bay (Winterbottom, 1960*e*), apparently travelling via the east shore of the Caspian Sea (McLachlan, 1964). Moreau (1960) refers to ringing results in Tunisia, where the same birds have been taken at the same place during different migrations; and this may have been the case with a Common Sandpiper *Tringa hypoleucos* captured at Entebbe, Uganda, in August and October (Ashton, 1954).

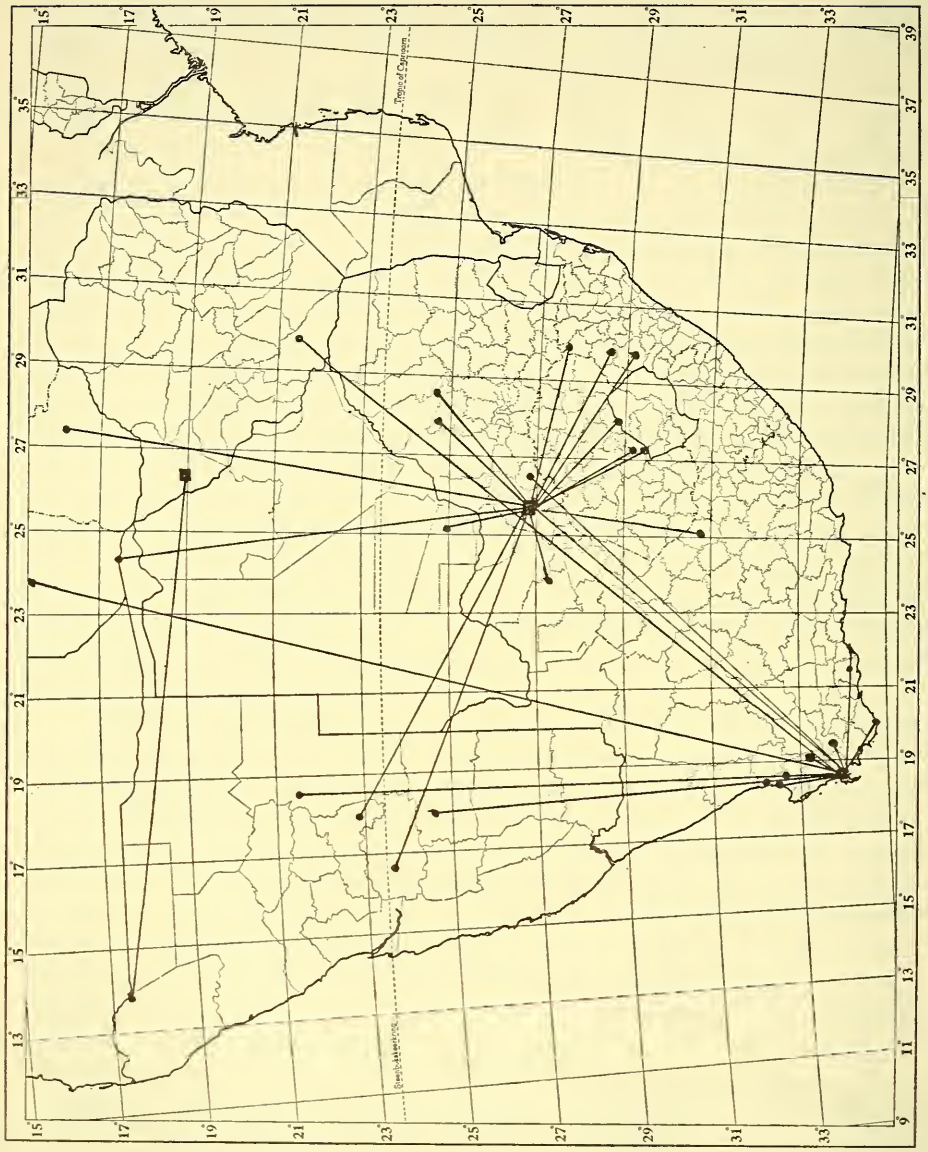
An even darker riddle concerns birds known to be breeding migrants both in the Palaearctic and in the western Cape. The best-known example of this is the European Bee-eater *Merops apiaster*. It remains to be proved whether Palaearctic-breeding birds ever reach the western Cape, though they undoubtedly do reach more northern and eastern parts of South Africa; and it is quite unknown where the Cape-breeding birds, which disappear from their nesting haunts in January, spend the rest of the year. Very similar comments apply to the Avocet *Recurvirostra avosetta*. Though this species is never entirely absent from our area, it does move considerable distances, as shown by the recovery of a bird ringed at Rondevlei at Pearston, about 450 miles east. It is not known whether Palaearctic-breeding birds of this species, and of the Black-winged Stilt *Himantopus himantopus* ever reach South Africa (despite the statement in Mackworth-Praed & Grant, 1962), but the idea that South African stilts are subspecifically distinct from those of the Mediterranean cannot be sustained (Winterbottom, 1962*j*). It is now known that the young of South African-breeding White Storks *Ciconia ciconia* migrate north, though whether they reach Europe is not yet proved (McLachlan, 1963).

Of birds which migrate, or move about, within the Ethiopian Region, more is known about our ducks than about any other group. Thus it now seems probable, from the results of ringing (map 6) and census work, that the Yellow-billed Duck *Anas undulata* is a local wanderer—or, as Keast (1961) would say, is nomadic (Winterbottom, 1964*c*; Rowan, 1963*b*) and the same is probably true of the Wigeon *A. capensis*; that the Red-billed Teal *A. erythrorhyncha* is chiefly a breeding visitor (map 7); that the Pochard *Netta erythrophthalma* has a small, resident, breeding population and a much larger one of non-breeding summer visitors (Middlemiss, 1958, Winterbottom, 1964*c*); and that the Shoveller *A. smithii* breeds chiefly in the southern Cape but then disperses all over the sub-continent and perhaps East Africa too (Winterbottom & Middlemiss, 1960).

Other prominent migrants which do not pass beyond the Ethiopian Region include the Red-chested and Didric Cuckoos *Cuculus solitarius* and *Chrysococcyx caprius*, all the breeding Hirundinidae except *H. rupestris* and *Riparia paludicola*, all the breeding swifts (*Apus barbatus*, *A. melba*, *A. affinis*, *A. caffer*, *A. horus*), the Paradise and Dusky Flycatchers *Terpsiphone viridis* and *Muscicapa adusta* and the Black Kite *Milvus migrans parasitus*. We have no



MAP 6. Ringing Recoveries, *Anas undulata*.



MAP 7. Ringing Recoveries, *Anas erythrorhyncha*.

adequate data on off-season quarters for any of these. In addition to their true migrations, the swifts, at least, make considerable weather movements even when breeding (Winterbottom, 1960*d*).

Probable local wanderers, in addition to the ducks already cited, include several of the larks (see White, 1959). The numbers of *Eremopterix verticalis*, *E. australis* and *Calandrella sclateri*, for instance, fluctuate enormously in any single area; and the presence of the northern subspecies *Calandrella cinerea witputzi* within the normal range of *C.c. cinerea* in the Caledon district, as shown by a specimen in the South African Museum, is proof of another species' wandering habits. Clancey (1959*f*) reports collecting two different subspecies of *Eremopterix verticalis* at the same water-point at Kalkrand, South West Africa; and both he and I have had the same experience with *Calandrella starki* in Bushmanland. Similarly, examples of the South West African breeding subspecies of the Black-headed Canary *Serinus alario leucolaema* have been recorded as far south as St. Helena Bay (Rowan, 1961) and as far east as Philipstown. Study of the Australian desert avifauna (Keast, 1958, 1961; Serventy & Marshall, 1957; Immelmann, 1963) has shown that a very high percentage of the species is nomadic, moving and breeding in response to the incidence of rainfall; and it is highly probable that the same will be found to hold good for many of the birds of the Karoo and the Kalahari. Thus, the late S. F. Townsend (MS.) notes, under 'Melton Wold/86': 'After some heavy rains in March, many birds began to build'; and again, in respect of the same place and under the Karoo Robin *Erythropygia coryphaeus*: '3 eggs. April 3/87 after heavy rains.' The point is further discussed below.

Some reference has already been made to species which are extending their range; and the subject has been more fully discussed elsewhere, both in general (Gill, 1952) and in the case of particular species (e.g. Skead, 1962; Winterbottom & Liversidge, 1954; Winterbottom, 1961*a*, 1964*c*). Comments will be found under the appropriate species in the systematic list below and it is not necessary to say more here. It appears likely, too, that adverse climatic conditions may cause temporary recession of range in some species. Thus, during the prolonged drought of the late 1950's, the Lark-like Bunting *Emberiza impetuani* disappeared from the Beaufort West area (W. F. Quinton, pers. comm.); and the European Starling *Sturnus vulgaris* appears to have lost much of its foothold on the Karoo. By contrast, when the drought broke in 1961, certain species, not normally inhabitants of the Karoo, took advantage of the unusual conditions to invade that area, as with Tawny Pipits *Anthus novaeseelandiae* and Quails *Coturnix coturnix* found numerous and breeding near the temporarily running streams in the east of the Laingsburg District in August of that year.

Discussion of changes of range, however, is handicapped in several ways: (i) our knowledge of past bird distribution in the western Cape is scanty, even for the south-western corner, and virtually non-existent for the rest of the area before the First World War; (ii) it is impossible to disentangle the various

factors involved, which include long-term and short-term climatic fluctuations, the direct effect of agricultural and other human activities, the indirect effects of progressive deterioration of the veld similarly caused by man, the effects of man as a predator and wanton destroyer of wild life by shooting, trapping and poisoning. To these we may hope to add in the future the effects of man as a conservationist, both of the soil and of the wild life, though so far his efforts in this direction have been slight and too recent to show results. Not the least of the purposes of this 'check list' is to enable future ornithologists to see the position as it was in the mid-twentieth century and to assess the changes that have subsequently taken place.

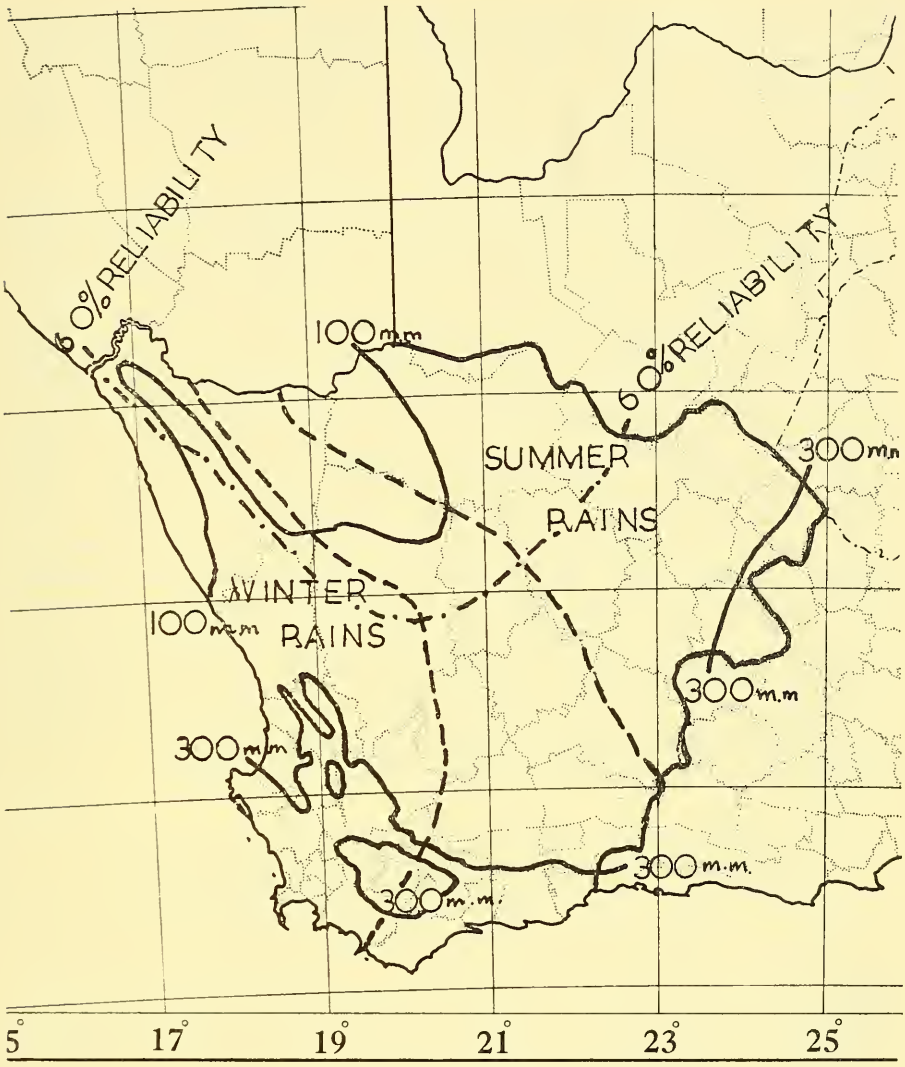
Breeding Seasons

The incidence of breeding seasons of birds in Africa generally has been discussed by Moreau (1950), who concluded, in respect of South Africa: 'In the S.W. Cape they [i.e. the birds] breed at the end of the rains; in the transitional area in the wettest time of the year; in Natal in the first half of the rains; and north of Natal breeding begins two months before the rains and ends almost in the first month.' This quotation refers to birds other than those of grasslands and fresh waters; and it may be mentioned that Moreau's 'transitional area' refers to an area between Humansdorp and Grahamstown, extending for about 100 miles inland. He had no data for the Karoo nor from the northern Cape. These areas are now more adequately covered and the extent to which they fit in Moreau's pattern has been discussed elsewhere (Winterbottom & Rowan, 1962; Winterbottom, 1963*f*).

In the western Cape, the rainfall pattern is complicated. Most rain falls in the south and east (Claremont, 54 in.; Stellenbosch–Bosboukloof, 43 in.; Ceres, 41 in.; Swellendam, 30 in.; Cape Town, 25 in.; Agulhas, 18 in.; Mossel Bay, 17 in.) and least in the north and north-west (11¾ in. at De Aar, 9 in. at Beaufort West and Sutherland, 6 in. at Fraserburg, Prieska and Upington, falling to 2 in. at Goodhouse and less than 2 in. at Port Nolloth). But local conditions may modify this picture. Thus Worcester, in the rain-shadow of the mountains, receives only 11½ in. and Oudtshoorn, for the same reason, only 9¼ in. Roughly speaking, the 300 mm. isohyet marks the boundary between Macchia and Karoo in the south.

In addition to a consideration of how much rain falls, it may also be important to know when it falls. In the west and south-west, from Namaqualand to Bredasdorp and inland to western Calvinia and the whole Ceres District, 60% or more of the rain falls in winter; in the north and north-east, 60% or more falls in summer; and in the centre of the country, the rainfall is more evenly distributed (map 7) over the months, but, in the northern part, very erratically from year to year. The question is more fully discussed by Wellington (1955).

Data are quite inadequate for the winter rainfall, intermediate and summer rainfall parts of the Karoo to enable variations in the breeding seasons to be



Map 8. Western Cape: Rainy seasons and rainfall.

worked out; but there is a mass of data for the south-western area here called 'Winter Rainfall', though too little of it is from the parts east of Bredasdorp and Worcester to make it practicable to pronounce whether the more even spread of the rainfall has affected the breeding season there (see below).

As between the Winter Rainfall and Karoo areas defined in this list, however, the peak of the breeding season is at very much the same time in the two areas, being September and October, during each of which months 20% or more of all nests found are recorded and 40% or more of the species are

breeding on the Karoo; and 20% of the nests and 60% of the species in the Winter Rainfall area (Winterbottom, 1963*f*). There is a slight recrudescence of breeding in the Karoo in March which needs further investigation but is believed to be a direct response so rain in those years in which normal rainfall is delayed until autumn. (Cf. J. T. Marshall, 1963, on the response of *Pipilo aberti* to late rains in Arizona.)

Within the Winter Rainfall area, there are now sufficient reliable records for the Cape Peninsula and the Somerset West–Stellenbosch areas, which are some 30 miles apart, to enable comparisons to be made, both of the general breeding season and of the breeding seasons of certain individual species. These have been considered in detail elsewhere (Winterbottom, 1962*k*, 1963*f*; Broekhuysen, 1963). It is enough here to indicate that they reveal that the breeding on the Peninsula tends to be somewhat later than in the Hottentots-Holland and that there are differences in the extent to which the breeding season is concentrated in any one species, though the latter varies according to species, being greater in one area in some and in the other in others. There is also a subjective opinion among local ornithologists that breeding is earlier in the north-west (Clanwilliam, Piketberg, Hopefield) than further south on the Cape Flats and earlier on the Cape Flats than in the Rûens (Caledon, Bredasdorp) east of the Hottentots-Holland Mountains. This is interesting because it reverses the trend deduced by Macdonald (1957) for the west coast from Little Namaqualand north. The probability that the trend is real, however, is supported by the data extracted from the Nest Record Cards for the south-west Cape and presented in table 16 below. They are based on between 1307 (for the western districts) to 4468 (for Peninsula) records.

TABLE 16

BREEDING RECORDS (CALCULATED DATES OF CLUTCH COMPLETION) FOR VARIOUS AREAS OF THE SOUTH-WEST CAPE, AS PERCENTAGES OF TOTAL NESTS FOUND

Area	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Western districts[1] ..	1	1	1	1	1	1	4	23	41	17	7	2
Peninsula	5	2	1	1	1	2	5	17	22	22	14	8
Hottentots-Holland ..	1	1	1	9	5	4	8	16	24	20	10	1
Eastern districts[2] ..	3	6	4	2	1	1	4	3	13	31	27	5

[1] Clanwilliam, Hopefield, Malmesbury, Piketberg, Vanrhynsdorp.
[2] Bredasdorp, Caledon, Robertson, Swellendam.

A further factor is difference from year to year. Again subjective opinion is that this occurs; and the statistics that exist confirm this but are not really adequate to enable one to pronounce that the results are not due, at least in part, to sampling errors. Thus, assuming that the suggestions in table 16 are correct, a relatively high proportion of records for any one year from the western districts would simulate an early season; and a relatively high proportion from the eastern districts, a late one. Ignoring this possible complication, we may divide the years from 1951 to 1962 into three categories:

TABLE 17

PERCENTAGE NESTS BY YEARS AND MONTHS IN SOUTH-WEST CAPE FOR 37 SPECIES

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Remarks
1951	0	0	0	2	4	13	4	7	26	19	12	13	Late
2	7	4	1	2	3	1	2	11	23	22	10	11	Late
3	5	2	1	1	4	2	6	18	25	21	5	10	
4	1	3	1	5	3	2	6	19	31	16	8	5	
5	4	1	2	6	3	2	6	21	26	20	8	3	
6	3	3	2	3	5	3	8	26	17	17	8	5	Early
7	1	1	1	7	2	4	7	21	26	17	9	5	
8	6	1	1	3	3	3	5	22	23	21	7	6	
9	5	2	2	6	3	2	12	14	28	20	10	5	Late
1960	2	2	0	3	2	1	8	30	23	19	5	3	Early
1	1	0	1	2	1	3	8	26	30	17	8	3	
2	1	1	1	1	2	1	8	17	35	18	7	8	
3	1	1	0	1	1	0	3	12	31	33	10	5	Late
Totals	3	2	1	3	3	3	7	20	27	19	8	5	

(i) Years in which the peak of the breeding, as measured by the percentage of total nests found, is in August. These would be early seasons and are 1956 and 1960.

(ii) Years in which the peak of the breeding is in September and the percentage of nests recorded in October exceeds that in August by more than 5%. These would be late seasons—1951, 1952, 1959 and 1963 (very late—peak in October).

(iii) The rest, which can be regarded as normal seasons. The detailed figures are set out in table 17, and are based on records for 37 common species.* If we group the four late seasons and take the average figure and do the same with the two early seasons, the contrast comes out very well. The percentage figures for the period July to December are:

	July	Aug.	Sept.	Oct.	Nov.	Dec.
Late	5	11	22	$23\frac{1}{3}$	$10\frac{1}{3}$	$8\frac{1}{2}$
Early	8	28	20	18	$6\frac{1}{2}$	4
All seasons	6	19	26	20	8	6

It will be seen that in the late seasons, about 10% of the nests were found in each of the months November and December, whereas in the early seasons nesting tails off in these months even more than it does in normal seasons; and the amount of nesting in August in early seasons is more than $2\frac{1}{2}$ times that in late seasons.

Totals for individual species are usually too small to be reliable, but the Red-knobbed Coot *Fulica cristata* is late in late years and early in early years; though it was also early in 1961; the Cape Wagtail *Motacilla capensis* was also late in late years, but not particularly early in early ones, whereas the Cape Robin *Cossypha caffra* showed the opposite phenomenon. The Fiscal *Lanius collaris* agreed with the general average except in 1959, when it was early instead of late (and in 1958, when it was early instead of normal).

Sources of Information

A full bibliography of works dealing with the birds of the western Cape will be published separately. In this check list, I propose to deal with the sources used for each district.

The area south and west of the Olifants and Breede rivers is covered by the *Check list of the birds of the S.W. Cape* (1963), edited by the writer and issued by the Cape Bird Club. It will be referred to here as *C.B.C. check list* and the

* *Anas undulata, A. smithii, Burhinus capensis, Fulica cristata, Himantopus himantopus, Charadrius alexandrinus, C. pecuarius, Vanellus coronatus, V. armatus, Streptopelia capicola, S. senegalensis, Calandrella cinerea, Motacilla capensis, Anthus novaeseelandiae, Pycnonotus capensis, Turdus olivaceus, Saxicola torquata, Cossypha caffra, Erythropygia coryphaeus, Cisticola subruficapilla, C. tinniens, Prinia maculosa, Hirundo albigularis, Lanius collaris, Malaconotus zeylonus, Promerops cafer, Nectarinia famosa, N. violacea, N. chalybea, Zosterops virens, Passer melanurus, Ploceus capensis, Euplectes capensis, Serinus canicollis, S. flaviventris* and *Emberiza capensis*, representing 17 families, 12 passerine and 5 non-passerine.

information contained in it will be broadly summarized only in this list. There is no other general work on the region, but a good many localities in the western Cape are listed in Layard (1867), in Stark & Sclater (1900–6) and in Shelley (1900–12). There are also a few such localities in Hewitt (1931); and the type-localities cited in Vincent (1952) have also been useful.

During the course of this study 2,600 bird skins have been collected by the author and his helpers and deposited in the South African Museum; and all the material in that institution has been examined. I also collected and examined the 132 skins in the Morrison Collection, most of which are now in the Museum of Comparative Zoology, Harvard. In connection with the collecting, I am deeply grateful to my wife, who skinned many of the specimens; to the Divisional Council of the Cape and their Chief Warden of Nature Reserves (Mr. E. H. J. Middlemiss), who were always ready to make available the services of the skinner attached to Rondevlei Bird Sanctuary; and to those who accompanied me on collecting trips and helped with the collecting (C. Booth, the late B. Carp, J. G. R. MacLeod, A. N. B. Masterson, E. H. J. Middlemiss, R. Rau, R. Winterbottom).

In critical cases, where material in the South African Museum was inadequate to elucidate the problems, additional material has been borrowed from the following museums, to the authorities of which my grateful thanks are due: Albany Museum, Grahamstown; British Museum (Natural History); Durban Museum & Art Gallery; East London Museum; Kaffrarian Museum, King William's Town; Museum Dr. Alvaro de Castro, Lourenço Marques; Natal Museum, Pietermaritzburg; National Museum of Southern Rhodesia, Bulawayo; Port Elizabeth Museum; Transvaal Museum, Pretoria. The Director of the Durban Museum & Art Gallery (Mr. P. A. Clancey) also made helpful comments on the text of this list.

I am deeply grateful, too, to the following ladies and gentlemen who have put unpublished field records at my disposal:

E. Ashforth; H. J. v. d. H. Barry, Carl Battenhaussen, Sir Charles Belcher, Dr. G. Beven, Dr. and Mrs. G. J. Broekhuysen, H. W. Bromly, R. K. Brooke, R. M. Cary, Mrs. C. E. Chaundy, P. A. Clancey, Miss M. Courtenay-Latimer, Mrs. M. de Villers (the records of her father, the late S. F. Townsend), Rev. W. R. Duxbury, the late Miss F. F. T. Frere, H. L. Hare, J. H. Hofmeyr, P. K. Hofmeyr, Mrs. Littlewood, R. Liversidge, P. Lor, Dr. G. R. McLachlan, G. L. Maclean, J. G. R. MacLeod, J. Martin, R. Martin, H. K. Morgan, Mrs. Moore (also for the records of her father, the late S. Tapson), A. Morris, C. d'C. Murray, Dr. J. E. Nel, T. N. Pocock, W. F. Quinton, Misses C. St. C., E. & J. R. Robinson, Andrew Rowan, Mrs. M. K. Rowan, R. K. Schmidt, C. J. Skead, W. P. Stanford, Mrs. I. Taylor, P. Tongue, G. D. Underhill, A. van der Plaat, T. J. R. von Etzdorf, P. Wheeler, the late A. H. Wilson, C. H. F. Woolley;

to the following for permission to collect on their farms and for much kindness and hospitality:

G. Battenhaussen, the late Senator J. W. Butler, J. M. Connan, M.P., J. J. Douglas, P. J. du Plessis, C. J. Hodgson, W. Laurence, J. MacRobert, Rev. Father M. Malery, O.S.F.S., P. G. Marais, C. P. Marincowitz, G. A. O. Marincowitz, M. Melck, H. L. Normand, W. F. Quinton, A. J. Roux, John Roux, James Roux, Jurgens Schoeman, W. M. G. Smit, D. H. Torr, R. H. Torr, H. van Breda, G. W. A. van Heerden, D. J. Visser, D. O. Wright; and for similar permission to the Departments of Forestry and Water Affairs, the National Parks Board, the Cape Department of Nature Conservation, the Cape Town City Council, the Kenhardt Municipality, the Smartt Irrigation Board, Monazite & Mineral Ventures Ltd., Searles Ltd., Cape Blue Mines Ltd., David Graaff Foods Ltd.; to Dr. A. D. Harrison for information on the comparative productivity of fresh-water vleis; and to Dr. De Winter and the Botanical Survey of South Africa, Mr. John Voelcker and the Trustees of the South African Bird Book Fund, Mr. C. J. Skead and Mr. Walter Stanford, C.B.E., for the use of photographs.

Finally, I must gratefully acknowledge the support received from the South African Council for Scientific and Industrial Research, whose award of a Senior Bursary during the years 1956–60 inclusive enabled this work to be started and who gave a grant towards the publication costs of this paper.

The field work on which this list is based was closed on 31 December 1964; and no systematic or distributional data have been used after November 1966.

In the systematic list, the districts from which each form has been recorded are listed in the last line under the abbreviations given below, those in heavy type indicating that the author has examined at least one specimen from that area. For the definitions of the sub-districts, see below under the district concerned.

B – Britstown
BW 1, 2, 3 – Beaufort West
C 1, 2 – Calvinia
Ce 1, 2, 3 – Ceres
Cl 1, 2 – Clanwilliam
Cn – Carnarvon
Ct – Calitzdorp
D – De Aar
F – Fraserburg
H – Hopetown
K – Kenhardt
L – Ladismith
Lg – Laingsburg
M – Montagu
MB – Mossel Bay
N 1, 2, 3, 4 – Little Namaqualand
O – Oudtshoorn
P – Philipstown
PA – Prince Albert
Pr – Prieska
R – Richmond
Rb – Robertson
Rv 1, 2 – Riversdale
S – South-west Cape (see footnote on p. 61)
Su 1, 2 – Sutherland
Sw 1, 2 – Swellendam
T – Tulbagh
U – Gordonia
V – Vanrhynsdorp
VW – Victoria West
W – Williston
Wo 1, 2, 3 – Worcester

Beaufort West

Abbreviations*: BW 1, BW 2, BW 3. Classification: Karoo

The author collected at Hillmore, 20 miles south-east of Beaufort West and in BW 2, 18–25 September 1955 and on odd days subsequently.

The district may be divided into three sections, one north of the Nieuweveld Mountains (BW 1); one centring on Merweville, with the Koekemoers River as its eastern boundary (BW 3); and the rest of the district (BW 2). Of these BW 3 consists of Karroid Broken Veld; BW 2, partly of this, but with Central Lower Karoo in the east (including my collecting station, Hillmore); and BW 1 includes both of these plus *Danthonia* Mountain Veld replaced by Karoo and Central Upper Karoo (all terms after Acocks, 1953). There is no body of permanent fresh water in the district, but the municipal dam at Beaufort West itself may carry a considerable population of aquatic birds when it holds water.

Bellville

Abbreviation: S†; Classification: Winter Rainfall

The *C.B.C. check list* summarizes all information on this district. Additional details on the birds of Rietvlei will be found in K. M. F. Scott (1954) and Winterbottom (1960*e*).

Bredasdorp

Abbreviation: S; Classification: Winter Rainfall

The *C.B.C. check list* summarizes all information on this district. Supplementary information on the Cape L'Agulhas region will be found in Robinson, Robinson and Winterbottom (1957, 1960) and on De Hoop in Winterbottom (1958*d*) and Smit (1961). The author has collected at Cape L'Agulhas and Zoetendalsvlei, where Roberts also made a collection, on various occasions.

Britstown

Abbreviation: B; Classification: Karoo

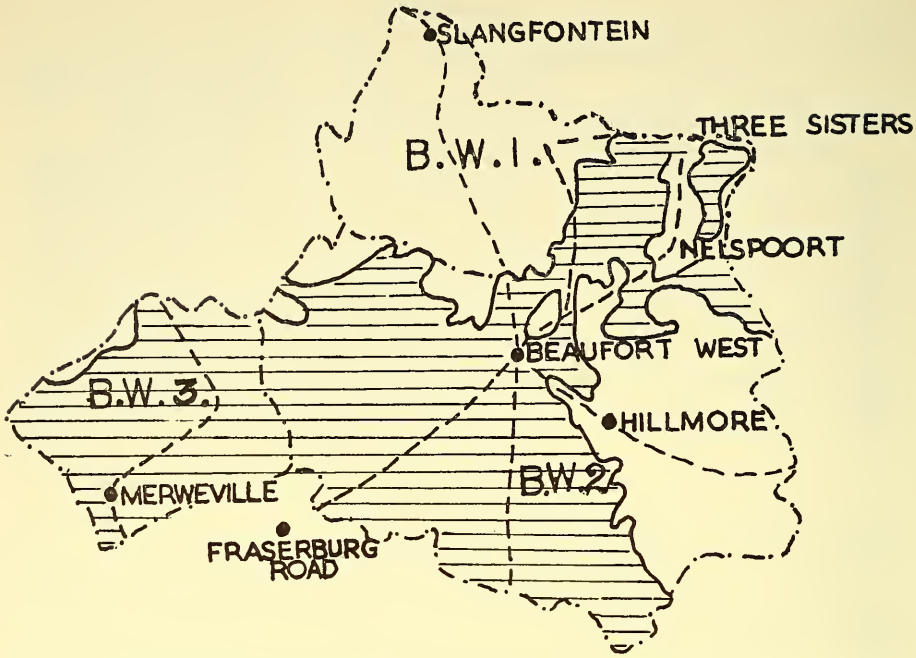
The author and J. G. R. MacLeod collected at the Smartt Syndicate Dam, where also the East London Museum has made a collection, 22–24 February 1960.

The vegetation is classified as Central Upper Karoo in the east and False Arid Karoo in the west. The chief body of fresh water is the Smartt Syndicate Dam, which, however, is not permanent.

* As used in the systematic list.

† This is used for the following districts, which are wholly contained in the area covered by the *C.B.C. check list* (see p. 58):

Bellville	Cape Town	Paarl	Somerset West	Wynberg
Bredasdorp	Hopefield	Piketberg	Stellenbosch	
Caledon	Malmesbury	Simonstown	Wellington	



Map 9. Beaufort West District. Horizontal lines: Central Lower Karoo; broken lines: author's routes; dot-dash lines: boundaries.

Caledon

Abbreviation: S; Classification: Winter Rainfall

The *C.B.C. check list* summarizes all information on this district. For more details on the birds of Hermanus, see Ashton (1945) and Scott, Harrison & MacNae (1952).

Calitzdorp

Abbreviation: Ct; Classification: Karoo

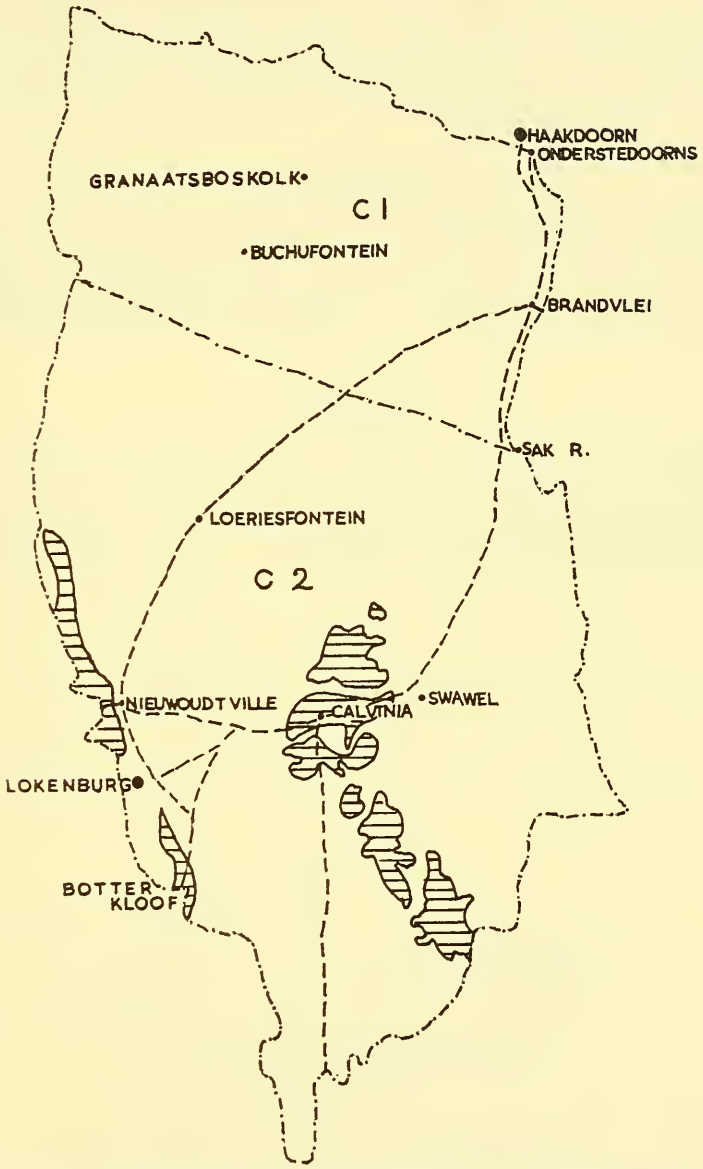
The author collected at Matjesvlei, about 7 miles north of Calitzdorp and in the foothills of the Swartberg Mountains, 15–20 November 1960; and published the more interesting of the results (1961*h*). Valuable additional information has been supplied by Mr. T. N. Pocock.

Apart from False Macchia high up on the Swartberg, the vegetation of the district is classified by Acocks (1953) as Succulent Mountain Scrub in the north, Karroid Broken Veld in the centre and Succulent Karoo in the south-east.

Calvinia

Abbreviations: C 1, C 2; Classification: Karoo

The author collected at Lokenburg, on the western border of the district (C 2), 20–24 October 1956. Lists made available to me by Mrs. M. K. Rowan,



Map 10. Calvinia. Horizontal lines: Winter Rainfall types of vegetation; broken lines: author's routes.

Miss M. Courtenay-Latimer, Dr. G. R. McLachlan, C. J. Skead and R. Liversidge, plus my own notes made while travelling through the district, are the other chief sources.

The district may be divided into two sections, keeping the area of the big vleis in the north-east (C 1) separate from the rest (C 2). The vegetation is chiefly Arid Karoo in the north and east and Western Mountain Karoo in the west and south; but, especially in the south-west, there are smaller areas of other types of vegetation—Macchia and Mountain Renosterbosveld, Succulent and False Succulent Karoo. The periodically flooded vleis are another important environment.

Cape Town

Abbreviation: S; Classification: Winter Rainfall

The *C.B.C. check list* summarizes all information on this district. Additional information on the water birds will be found in Winterbottom (1960*e*) and on those of the Public Gardens in Winterbottom (1966*f*). The author has resided in the district from 1960.

Carnarvon

Abbreviation: Cn; Classification: Karoo

The author and R. Rau collected on the farm Jagersberg, between Vanwyksvlei and Carnarvon, 12–16 March 1961.

The vegetation of the district is classified by Acocks (1953) as Arid Karoo in the west and False Arid Karoo in the east.

Map 11. Ceres District. Author's routes: – – – – –

Ceres

Abbreviations: Ce 1, Ce 2, Ce 3; Classifications: Ce 1, 2—Winter Rainfall, Ce 3—Karoo

The *C.B.C. check list* summarizes the information (practically non-existent) on the narrow slip of this district west of the upper Olifants River. I myself collected on the farm Hoop-en-Uitkoms, in the Cold Bokkeveld, 3–11 October 1953, and published the results (Winterbottom, 1956*b*). Other sources are a list for the area near Ceres itself by John Martin; others for the Cold Bokkeveld by Mrs. Taylor and Mr. A. Morris; and my own notes. These are summarized in Winterbottom (1966*g*).

The district falls naturally into three divisions, the Warm Bokkeveld, the Cold Bokkeveld and the Karoo, whose limits are indicated on Map 11. The two Bokkevelds belong floristically to the Winter Rainfall area, the Warm Bokkeveld being Coastal Renosterbosveld and the Cold, Macchia. Succulent Karoo, replaced on the mountains of the eastern border by Western Mountain Karoo, occupies the rest of the district.

Clanwilliam

Abbreviations: Cl 1, Cl 2; Classification: Cl 1—Winter Rainfall, Cl 2—Karoo

That part of the district west of the Olifants River is covered by the *C.B.C. check list* and I have published a list for the whole district (Winterbottom, 1963*e*). The author collected at Citrusdal, 17–22 October 1955; at Leipoldtville and Lambert's Bay, 21–26 November 1956; and at Bulshoek, 30 November—2 December 1956.

The district may be divided geographically into two sections, one (Cl 1) west of the Cedarberg Mountains and the other (Cl 2) east of them; but the major vegetational division is between the Macchia of the south and east and the Karoo types of the west (Strandveld) and north (Succulent Karoo and Western Mountain Karoo). The Olifants River provides a considerable body of fresh water, especially in the dams at Clanwilliam itself and at Bulshoek; and there is a big vlei south of Lambert's Bay.

De Aar

Abbreviation: D; Classification: Karoo

The author and J. G. R. MacLeod collected at Nuwejaarsfontein, 16 miles south of De Aar and on the Richmond border, 16–21 February 1960.

The vegetation of the district is classified by Acocks (1953) as False Upper Karoo in the south and Arid Karoo in the north.

Fraserburg

Abbreviation: F; Classification: Karoo

The author collected at Perdegrasvlei, 32 miles north-east of Fraserburg, 9–14 November 1958. The East London Museum has done some collecting

in the district and there are a number of references in Burchell (1922). My own notes made while travelling in the district have also been used.

The vegetation is Arid Karoo in the west and north-west, False Arid Karoo in the north-east, Central Upper Karoo in the south-east, and Mountain Karoo in the south, with Mountain Renosterbosveld along the crest of the Nieuweveld Mountains on the Beaufort West border.

Gordonia

Abbreviation: U; Classification: Karoo

Only the small section of the district south of the Orange River falls within our limits. The South African Museum possesses a number of skins collected last century by Dr. Bradshaw at Upington and Olyvenhout Drift; and the author collected at Virginia and Grassridge, Louisvale, 7–12 March 1962.

The vegetation is classified as Orange River Broken Veld; and the Orange River and its wooded banks and the irrigated farmlands along its valley are other important bird habitats.

Hopefield

Abbreviation: S; Classification: Winter Rainfall

All information for this district is summarized in the *C.B.C. check list.* Additional information on the birds, especially the water birds, of the Saldanha Bay area is given in Liversidge, Broekhuysen & Thesen (1958). The author and R. W. Rankine have collected at Schrywershoek, near the south end of the Saldanha Bay lagoon, on odd days.

Hopetown

Abbreviation: H; Classification: Karoo

The author and R. Rau collected at Kareekloof in the west of the district, 5–12 March 1961. The late S. F. Townsend's notes have been particularly valuable for this district. A list of birds recorded from the district has recently been published (Winterbottom, 1965*a*).

The vegetation of the district is False Arid Karoo, replaced by False Orange River Broken Veld in the Orange River valley.

Kenhardt

Abbreviation: K; Classification: Karoo

The author collected at Kenhardt, where the Durban Museum has also collected, 8–11 December 1964. The Durban Museum has also collected at Pofadder and Bladgrond.

The vegetation of the district is classified by Acocks (1953) as Orange River Broken Veld in the north-east, Namaqualand Broken Veld in the north-west and Arid Karoo in the south, with a patch of False Succulent Karoo south of Pofadder.

Ladismith

Abbreviation: L; Classification: Karoo

No regular collecting has been done in this district but the author has traversed most of it from time to time and his notes are the main source of information.

The vegetation is Succulent Mountain Scrub, replaced on the higher levels by False Macchia and in the south-west corner by Karroid Broken Veld.

Laingsburg

Abbreviation: Lg; Classification: Karoo

The author has spent odd days collecting round Matjesfontein, on several occasions; and collected at Dikbome, in the north-east of the district, 16–21 August 1961.

The bulk of the district is Karroid Broken Veld, with Succulent Karoo in the river valleys, and False Macchia on the southern mountains. In the extreme north is a patch of Western Mountain Karoo; and there is Mountain Renosterbosveld on the northern mountains.

Malmesbury

Abbreviation: S; Classification: Winter Rainfall

All information for this district is summarized in the *C.B.C. check list.* The author spent odd days collecting at Mamre, Ysterfontein and Modderfontein.

Montagu

Abbreviation: M; Classification: Karoo

The South African Museum possesses a small collection made in the neighbourhood of Montagu itself by H. J. v. d. H. Barry in 1960. Other sources include lists by H. K. Morgan, P. Lor and J. M. Feely and my own notes.

The vegetation is mostly Karroid Broken Veld, with Mountain Renosterbosveld, Macchia and False Macchia in the mountains.

Mossel Bay

Abbreviation: MB; Classification: Winter Rainfall

The author collected at Ruiterbos, at the foot of the Robinson Pass between Mossel Bay and Oudtshoorn, 27 September–3 October 1958; and at Great Brak River, 10–15 November 1960 (Winterbottom, 1961*l*). Valuable information for the Gouritz River valley between the National Road and the sea has been provided by Major C. H. F. Woolley; and T. N. Pocock and T. J. R. von Etzdorf have also supplied many records for the District. A complete list of the birds, by T. J. R. von Etzdorf and the author, is in the press.

The vegetation of the district is very complex and no brief summary

would be intelligible. Suffice it to say that the Ruiterbos area is Temperate Forest; the area north-west of Cloete Pass, Little Karoo; and the rest, various varieties of the Macchia of the Winter Rainfall area.

Namaqualand

Abbreviations: N 1, N 2, N 3, N 4. Classification: Karoo

There is a good deal of published and unpublished information on the birds of this district. It is summarized, with a bibliography, in Winterbottom & Courtenay-Latimer (1961), where the district is divided into four sections, Coastal (N 1), Richtersveld (N 2), Main Plateau (N 3), and Bushmanland (N 4). The author collected in the Richtersveld, 23–29 March 1958 (Winter-

Map 12. Little Namaqualand. Vertical lines: Arid Karoo; horizontal lines: Namaqualand Broken Veld; stipple: Strandveld of the West Coast; broken lines: author's routes.

bottom, 1959*d*); with A. N. B. Masterson in the Kamiesberg, 24–25 July 1958; in the vicinity of Garies, 30 June–6 July 1959; with J. G. R. MacLeod at Pella, 22–26 August 1959; at Silverfontein, 5–9 November 1962; at Banken, 9–16 November 1962 (Winterbottom, 1963*d*); but has done no full-scale collecting in N 1, where, however, the East London Museum has collected recently (Courtenay-Latimer, 1963) and C. H. B. Grant (Sclater, 1911–12) in the first decade of this century. Additional information on the birds of Bushmanland has also been published (Winterbottom, 1965*c*).

Botanical subdivisions do not seem to fit in with the bird distribution particularly well. Acocks (1953) divides the district into the following zones, roughly parallel with the coast: Strandveld, Succulent Karoo, Orange River Broken Veld and False Succulent Karoo, with Arid Karoo in the north-east corner and Mountain Renosterbosveld on the Kamiesberg.

Oudtshoorn

Abbreviation: O; Classification: Karoo

Information for this district has been summarized by Pocock & Winterbottom (1958) and Pocock, Pocock & Winterbottom (1961). Unpublished 'relative counts' of Karoo bush, made in 1944 by Dr. G. Beven, have also been used. The author collected at Oudtshoorn, 8–12 April 1956; and at De Rust, 13–18 May 1963 (Winterbottom, 1964*a*).

Although the district is classified as Karoo, a considerable amount of typical Winter Rainfall flora, with such characteristic associated fauna as *Promerops cafer*, *Nectarinia violacea*, *Sphenoeacus afer*, etc., occurs on the mountains, especially the Swartberg.

Paarl

Abbreviation: S; Classification: Winter Rainfall

All information for this district is summarized in the *C.B.C. check list.*

Philipstown

Abbreviation: P; Classification: Karoo

An account of the birds of this district was produced by H. L. Hare (1915) who kindly sent me a MS. list, amplifying this and bringing it up to date. The author collected at Washbank, 9 miles south-west of Philipstown, 1–6 May 1959. The vegetation of the whole district is False Upper Karoo; and the Orange River in the north provides a body of permanent fresh water.

Piketberg

Abbreviation: S; Classification: Winter Rainfall

All information for this district is summarized in the *C.B.C. check list.* The author collected at Kersefontein, on the Berg River, 16–20 February 1959, and with R. Rau, 17–19 August 1960; and at Vensterklip, on the Piketberg itself, 19–22 September 1962.

Prieska

Abbreviation: Pr; Classification: Karoo

The author collected at Koegasbrug on the Orange River some 35 miles below Prieska, 12–16 March 1962. The Durban Museum has a collection from Prieska itself.

The vegetation of the district is classified as Orange River Broken Veld in the north, Arid Karoo in the south-west and False Arid Karoo in the south-east. The Orange River, with its wooded banks, and the irrigated farm-lands adjacent to it are other major habitats.

Prince Albert

Abbreviation: PA; Classification: Karoo

The author collected at Rondawel, near Klaarstroom, in the east of the district, 3–8 November 1957 and has worked there and on neighbouring farms on several visits in 1965 and 1966. The bulk of the district is covered with Karroid Broken Veld, but the Swartberg Mountains, which form its southern boundary, carry Succulent Mountain Scrub at lower levels and False Macchia above; and Succulent Karoo occurs along the Dwyka and Gamka Rivers. The eastern part of the district has more luxuriant vegetation than the western; and a feature of the Karoo area in the Traka basin is the extent of acacia scrub along the watercourses, which carries not only the species usual in such vegetation all over the Karoo but others normally characteristic of the Winter Rainfall area, such as *Tchagra tchagra* and *Apalis thoracica*.

Richmond

Abbreviation: R; Classification: Karoo

The extensive collections made at Deelfontein by Grant & Seimund are dealt with by Sharpe (1904).

The vegetation of the district is classified by Acocks (1953) as False Upper Karoo, with Karroid *Danthonia* Mountain Veld on the Sneeuberg Mountains in the extreme south.

Riversdale

Abbreviations: Rv 1, Rv 2; Classifications: Rv 1—Winter Rainfall; Rv 2—Karoo

I collected at Still Bay, where Roberts had also made a collection, in November 1959. Other sources used have been a list of Afrikaans names published by Muir (1940), which however cannot be taken as meaning that all the species listed occur in the district; isolated records in Roberts (1941*a*) and Stark & Sclater (1900–6); a list for Road's End Farm compiled by the late Miss Frere; and my own notes made on various journeys through the district. These are co-ordinated in Winterbottom (1966*c*).

The vegetation falls into four zones, running roughly parallel from east to west. These are, from north to south: Karroid Broken Veld, north of the Langeberg Mountains; False Macchia on the mountains; Coastal Renosterbosveld along the foothills; and Coastal Macchia in the south. In addition, there is a patch of Valley Bushveld along the Gouritz River between the national road bridge and the mountains and of Mountain Renosterbosveld north of the range. Of these, the Karroid Broken Veld and Mountain Renosterbosveld constitute Rv 2.

Robertson

Abbreviation: Rb; Classification: Winter Rainfall

Information on the area south of the Breede River is summarized in the *C.B.C. check list*; and a complete list of the birds of the whole district has also been published (Winterbottom, 1965*b*) which includes the results of collecting at Vrolijkheid, between Robertson and McGregor, 26 October–2 November 1959 (Winterbottom, 1961*b*).

Most of the Breede River valley lies in the rain-shadow of the Riviersonderend Mountains and is botanically Karroid Broken Veld. A few typical Karoo species, not normally found in the Winter Rainfall area, such as the Fairy Flycatcher *Stenostira scita* and Karoo Chat *Cercomela schlegelii*, and a few Karoo subspecies, such as *Certhilauda curvirostris gilli* and *Serinus flaviventris quintoni*, occur; but so many of the typical Karoo forms are absent or are represented by Winter Rainfall subspecies that it is considered best to classify the whole district in the latter zone. The mountain flora is Macchia.

Simonstown

Abbreviation: S; Classification: Winter Rainfall

All information for this district is summarized in the *C.B.C. check list.* Additional information on the water birds will be found in Winterbottom (1960*e*).

Somerset West

Abbreviation: S; Classification: Winter Rainfall

All information for this district is summarized in the *C.B.C. check list.* Supplementary information will be found in MacLeod, Murray & Murray (1951–2).

Stellenbosch

Abbreviation: S; Classification: Winter Rainfall

All information for this district is summarized in the *C.B.C. check list.*

Sutherland

Abbreviations: Su 1, Su 2; Classification: Karoo

The district falls into two sections, one north (Su 1) and the other south

(Su 2) of the Roggeveld Mountains. The vegetation is Western Mountain Karoo, with much Mountain Renosterbosveld on the mountains; a long finger of Arid Karoo along the valley of the Riet River in the north; and Succulent Karoo in the Tanqua River valley in the south. The author collected at Blouheuwel, in the Tanqua valley, 19–22 March 1963.

Swellendam

Abbreviations: Sw 1, Sw 2; Classifications: Sw 1—Winter Rainfall; Sw 2—Karoo

A list of the birds of the district has been published (Winterbottom, 1962*m*). I have collected from Barrydale as a base, 13–15 April 1956, and in the Bontebok National Park, 5 miles south of Swellendam, 12–16 and 21–24 August 1961 and 15–19 January 1962 (Winterbottom, 1962*l*); and have travelled a good deal over the district. There are a number of lists in the Cape Bird Club files, those of P. Zoutendyk, C. H. F. Woolley and Mrs. Taylor for the Cape Infanta area and of John Martin for Barrydale being particularly useful. More recently (1965–6), I have done additional work in the Bontebok Park.

The district is divided into two by the Langeberg Mountains, the area north of this range (Sw 2) being part of the Little Karoo, while that to the south belongs to the Winter Rainfall area. The vegetation north of the range is Karroid Broken Veld, with Mountain Renosterbosveld on the Warmwaterberg. The Langeberg is covered with False Macchia, the Breede River valley with Coastal Renosterbosveld and there is a narrow strip of Coastal Macchia on the Potberg, along the southern boundary.

Tulbagh

Abbreviation: T; Classification: Winter Rainfall

Information for the south-western part of this district is summarized in the *C.B.C. check list.*

The vegetation of the district is classified by Acocks (1953) as Macchia, with a narrow belt of Coastal Renosterbosveld in the west.

Vanrhynsdorp

Abbreviation: V; Classification: Karoo

I have collected at Doornbaai, Papendorp and Liebendal in November 1956; and, with A. N. B. Masterson, at the Monazite Mine, 50 miles north of Vanrhynsdorp, and at Widouw's River, between Vanrhynsdorp and Klaver, in July 1958. A list of the birds of the district is given by Winterbottom (1966*b*).

The vegetation of the district falls into three main divisions: Strandveld along the coast; Macchia in the mountains of the south and east; and Succulent Karoo elsewhere. There are no big bodies of fresh water, but at the mouth of the Olifants River (Papendorp) there is a large tidal lagoon. The Olifants

itself is the only permanent river in the district and along its banks are irrigated farms.

Victoria West

Abbreviation: VW; Classification: Karoo

I have published information on some of the birds of this district, based on a two-month stay at Melton Wold in 1943–4 (Winterbottom, 1945, 1946, 1962*n*); and have collected at Wagenaarskraal, in the south of the district, 2–6 October 1957; and with J. G. R. MacLeod, 24–26 February 1960; and at Beyersfontein, Pampoenpoort, 3–7 March 1962. Other sources, besides my own notes made while travelling through the district, have been MS. lists of the birds of Melton Wold made by Sir Charles Belcher in October 1952, by Mrs. Isobel Taylor in August 1957, and by Mr. A. R. Brown in September–October 1960; and the MS. notes of the late S. F. Townsend, who was in the district 1886–7 (Winterbottom, 1962*e*).

The vegetation of the district is classified by Acocks as Central Upper Karoo, with some False Upper Karoo in the east and False Arid Karoo in the extreme north. There is no body of permanent fresh water in the district, but the larger farm dams carry appreciable populations of aquatic birds and waders when full.

Wellington

Abbreviation: S; Classification: Winter Rainfall

All information for this district is summarized in the *C.B.C. check list.*

Williston

Abbreviation: W; Classification: Karoo

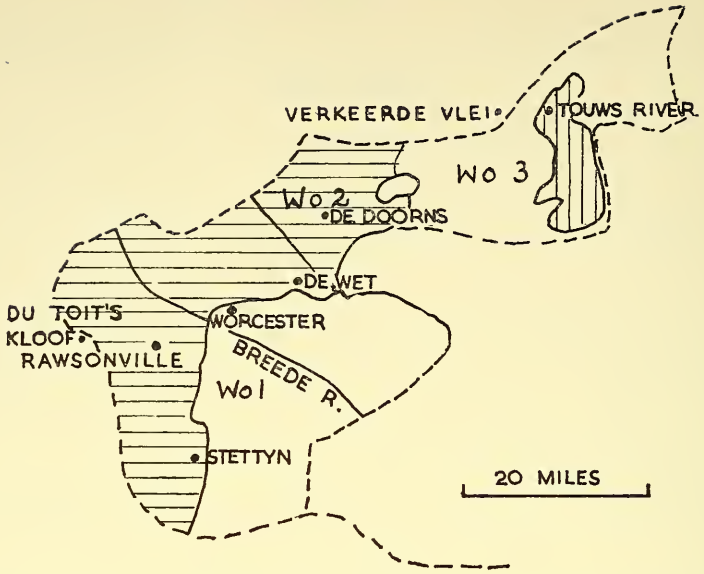
The author with J. G. R. MacLeod, collected at Banksfontein, 24 miles east of Williston, 27 August–2 September 1959; and valuable additional records for this area have been supplied by J. Martin.

The vegetation of the district is classified by Acocks (1953) as Arid Karoo.

Worcester

Abbreviations: Wo 1, Wo 2, Wo 3; Classifications: Wo 1, Wo 2, Winter Rainfall; Wo 3, Karoo

Information for the part of the district south of the Breede River is summarized in the *C.B.C. check list* and for the whole District in Winterbottom (1962*p*). The district falls into three sections, the Breede River valley (Wo 1), the Hex River valley (Wo 2) and the plateau centred on Touws River (Wo 3). The South African Museum possesses a fair number of skins from this latter section, collected by Dr. Kirkman at the beginning of the century and by the author on odd days more recently; and also a collection made in the first section by Butler in the 1880's. A list of the birds in the second section by H. L.



Map 13. Worcester District. Horizontal hatching: Macchia; vertical hatching: Succulent Karoo.

Hare, who resided there for three months in 1953, has also been most valuable.

Much of the Breede River valley lies in the rain-shadow of the Hottentots-Holland Mountains, but, for the same reasons as are set out for the Robertson District, the area is considered faunistically part of the Winter Rainfall area, as is the Hex River valley. The southern, western and northern parts of the district, including the mountain ranges, are covered with Macchia. In the rain-shadows, this gives place to Mountain Renosterbosveld; but in the Breede River valley from Worcester east, Renosterbosveld is replaced by Karroid Broken Veld. Around Touws River, and extending a long finger southward, is a patch of Succulent Karoo. This very varied terrain is still further diversified by the seasonally flooded marshes along the Breede River and by the reservoirs of Verkeerdevlei, west of Touws River (Winterbottom, 1964*b*), and Brandvlei, near Worcester.

Wynberg

Abbreviation: S; Classification: Winter Rainfall.

All information for this district is summarized in the *C.B.C. check list.* The author resided in the district, 1950–60. Additional information on the birds of Rondevlei Bird Sanctuary will be found in the Warden's Reports (Middlemiss, 1952 onwards); on the water birds in Winterbottom (1960*e*); and on the birds of the Sasmeer Estate in Winterbottom (1962*d*).

Systematic List

The sequence and families are based on Mayr & Amadon (1951), but the sequence of families in the order Passeriformes follows Wetmore (1934).

The original description of each form is cited in full. In addition, the names used in the following works, cited in abbreviated forms as shown, are also included:

Alexander, W. B. 1955. *Birds of the ocean.* 2nd ed.
Alexander, 1955.

Cape Bird Club. 1963. *Check list of the birds of the south western Cape.*
C.B.C., 1963.

Delacour, J. 1954–59. *The waterfowl of the world.* **1–3.**
Delacour, 1954, 1956, 1959.

Friedmann, H. 1955. The honeyguides. *Bull. U.S. natn. Mus.* **208.**
Friedmann, 1955.

Friedmann, H. 1960. The parasitic weaverbirds. *Bull. U.S. natn. Mus.* **223.**
Friedmann, 1960.

Macdonald, J. D. 1957. *Contribution to the ornithology of western South Africa.*
Macdonald, 1957.

Mackworth-Praed, C. W. & Grant, C. H. B. 1962–63. *Birds of the southern third of Africa.* **1–2.**
Praed & Grant, 1962, 1963.

McLachlan, G. R. & Liversidge, R. 1957. *Roberts' Birds of South Africa.* Rev. ed.
McLachlan & Liversidge, 1957.

Skead, C. J. 1960. *The canaries, seed-eaters and buntings of southern Africa.*
Skead, 1960.

Swann, H. K. 1930–45. *A monograph of the birds of prey.* **1–2.**
Swann, 1930, 1945.

Vincent, J. 1952. *A check list of the birds of South Africa.*
Vincent, 1952.

Any other citations are given in full.

Family **Struthionidae**

Genus struthio L.

Struthio camelus australis Gurney — Ostrich

Struthio australis Gurney, Ibis, 1868: 253. S. Africa (restricted to Naarip Plain, near Walvis Bay, Vincent, Ostrich, 20, 1949: 148).

Struthio camelus australis; Vincent, 1952: 1; McLachlan & Liversidge, 1957: 1; Praed & Grant, 1962: 1; C.B.C., 1963: 10.

Struthio camelus; Macdonald, 1957: 43.

Probably extinct as a wild bird throughout our area. Domestic and feral birds are widely distributed.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.			1						2	1		

Family **Podicipidae**

Genus PODICEPS Lath.

Podiceps cristatus infuscatus Salvad. Great Crested Grebe

Podiceps infuscatus Salvadori, Annali. Mus. civ. Stor. nat. Genova (2), 1, 1884: 251. Lago Kilole, S. Abyssinia.

Podiceps cristatus infuscatus; Vincent, 1952: 1; McLachlan & Liversidge, 1957: 3; Praed & Grant, 1962: 5; C.B.C., 1963: 10.

Status uncertain. In the Winter Rainfall area, a breeding resident, in fluctuating number, on the bigger sheets of water. Elsewhere, recorded only from the southern Victoria West District, from Kraankuil, Hopetown District.

Ce 1, Ce 2, Cl 1, H, MB, **S**, Sw 1, T, VW, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1								1	4	4	3

Podiceps nigricollis gurneyi (Roberts) Black-necked or Eared Grebe

Proctopterus nigricollis gurneyi Roberts, Ann. Transv. Mus., 6, 1919: 118. Lambert's Bay, Cape Province; McLachlan & Liversidge, 1957: 4.

Podiceps caspicus gurneyi; Vincent, 1952: 2; Praed & Grant, 1962: 6.

Podiceps nigricollis gurneyi; C.B.C., 1963: 10.

Probably a summer visitor, chiefly to fresh waters in the Winter Rainfall area, where, however, it is decidedly local. Recorded also from five Karoo districts. Winters offshore, chiefly from Little Namaqualand north.

C 1, Ce 1, Ce 2, Ce 3, Cl 1, Cn, N 1, O, R, Rb, **S**, T, U, W.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										2	18	

Podiceps ruficollis capensis Salvid. Dabchick

Podiceps capensis; Salvadori, Annali Mus. civ. Stor. nat. Genova (2), 1, 1884: 252. Rugghiè and L. Cialalaka, Shoa.

Podiceps ruficollis capensis; Vincent, 1952: 2; Macdonald, 1957: 43; McLachlan & Liversidge, 1957: 4, Praed & Grant, 1962: 7; C.B.C., 1963: 10.

The most abundant and widely distributed of the grebes, occurring even on temporary waters on the Karoo.

B, **BW 2**, C 1, C 2, Ce 1, Ce 2, Cl 1, Cn, Ct, F, H, L, Lg, M, MB, O, P, PA, Rb, Rv 1, **S**, Sw 1, Sw 2, T, U, V, VW, Wo 1, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	2	1	1					3	7	40	17	12

Family **Phalacrocoracidae**

Genus PHALACROCORAX Briss.

Phalacrocorax carbo lucidus (Licht.) White-breasted Cormorant

Halieus lucidus Lichtenstein, Verzeichniss der Doubletten . . . , 1823: 86. Cape of Good Hope.

Phalacrocorax carbo lucidus; Vincent, 1952: 6; Alexander, 1955: 190; McLachlan & Liversidge, 1957: 18; Praed & Grant, 1962: 44, C.B.C., 1963: 14.

Phalacrocorax carbo; Macdonald, 1957: 44.

Chiefly on the larger sheets of water, where it is generally distributed, even on the Karoo.

B, BW 2, C 1, Ce 1, Ce 2, Cl 1, Cn, Ct, D, F, L, Lg, M, MB, N 1, O, P, PA, Rb, Rv 1, Rv 2, S, Su 2, Sw 1, T, V, VW, W, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.												
Col.	1									1	1	
Ind.		1					2	10	1		1	18

Phalacrocorax africanus africanus (Gmel.) Reed Cormorant

Pelecanus africanus Gmelin, C. a Linne . . . Systema naturae, ed. 13, 1, (2), 1789: 577. Africa (restricted to R. Nile, Egypt, Grant & M. Praed, Bull. Br. Orn. Club, 53, 1933: 210).

Phalacrocorax africanus africanus; Vincent, 1952: 6; McLachlan & Liversidge, 1957: 19; Praed & Grant, 1962: 47; C.B.C., 1963: 15.

Halietor africanus africanus; Alexander, 1955: 198.

Phalacrocorax africanus; Macdonald, 1957: 44; C.B.C., 1963: 15.

P.a. coronatus (Wahlb.) is purely marine and is therefore omitted from consideration in this list. *P.a. africanus* is widely and generally distributed on fresh water in the Winter Rainfall area and Little Karoo but does not penetrate far into the Great Karoo except as an uncommon straggler.

Ce 1, Ce 2, Cl 1, Cl 2, Cn, Ct, L, M, MB, N 1, O, PA, R, Rb, Rv 1, S, Sw 1, Sw 2, T, V, Wo 1, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.												
Col.									1			
Ind.									4	2	2	4

Genus ANHINGA Briss.

Anhinga anhinga rufa (Lacép. & Daud.) Darter

Plotus rufus Lacépède & Daudin, in Buffon's Histoire naturelle . . . (Didot) Quadrupèdes, 14, 1802: 319; and Oiseaux, 17, 1802: 81. Senegal.

Anhinga rufus rufus; Vincent, 1952: 6; C.B.C., 1963: 15.
Anhinga rufa; Macdonald, 1957: 44.
Anhinga rufa rufa; McLachlan & Liversidge, 1957: 20; Praed & Grant, 1962: 49.

Common on the larger bodies of water in the Winter Rainfall area; elsewhere recorded only from the Orange River and Little Karoo.

Ce 2, Cl 1, L, M. MB, N 1, N 2, O, Rb. Rv 1, **S**, Sw 1, T, Wo 1, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1	2				7		5	2	2	2	4

Family **Pelecanidae**

Genus PELECANUS L.

Pelecanus onocrotalus L. White Pelican

Pelecanus onocrotalus Linnaeus, Systema naturae, ed. 10, 1758: 132. Caspian Sea (Grant & M.–Praed, Bull. Br. Orn. Club, 53, 1933: 189); Vincent, 1952: 7; McLachlan & Liversidge, 1957: 15; Praed & Grant, 1962: 52; C.B.C., 1963: 15.
Pelecanus onocrotalus onocrotalus; Alexander, 1955: 174.

Recorded only from the Winter Rainfall area, where it is common in the extreme south-west; and from the Orange River mouth.

Cl 1, N 1, Rv 1, **S**, V.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	21					2						

Pelecanus rufescens Gmel. Pink-backed Pelican

Pelecanus rufescens Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 571. West Africa; Vincent, 1952: 7; Alexander, 1955: 174; McLachlan & Liversidge, 1957: 15; Praed & Grant, 1962: 53; C.B.C., 1963: 15.

A rare straggler, recorded only from the extreme south-west.

S.

Family **Ardeidae**

Genera and arrangement in this family follow Bock (1956), except where otherwise noted.

Genus BOTAURUS Stephens

Botaurus stellaris capensis (Schleg.) Bittern

Ardea stellaris capensis Schlegel, Muséum d'histoire naturelle des Pays–Bas . . ., 5, 1863: 48. South Africa (restricted to Wynberg, Cape Province).
Botaurus stellaris capensis; Vincent, 1952: 9; McLachlan & Liversidge, 1957: 31; Praed & Grant, 1962: 73; C.B.C., 1963: 16.

Recorded only from the Winter Rainfall area, where its status is uncertain; but it seems to have become rare now even in the big reedbeds which are its chosen haunt.

M, MB, **S**, T.

Genus IXOBRYCHUS Bilb.

On the limits of this genus, see also South African Ornithological Society, List Committee Report (1958).

Ixobrychus minutus payesii (Hartl.) Little Bittern

Ardea payesii Hartlaub, J. Orn., Lpz., 1858: 42. Casamanse, Senegal.
Ixobrychus minutus payesii; Vincent, 1952: 8; McLachlan & Liversidge, 1957: 29; Praed & Grant, 1962: 71.
Ixobrychus minutus; Macdonald, 1957: 45.
Ixobrychus minutus payessii (*sic*); C.B.C., 1963: 17.

A rare species, recorded only from the Winter Rainfall area, where it appears to be a breeding summer visitor to reed-beds.

Ce 1, **S**, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									1			

Ixobrychus sturmii (Wagl.) Dwarf Bittern

Ardea sturmii Wagler, Systema avium, Ardea, 1827: no. 37. Senegambia.
Ardeiralla sturmii; Vincent, 1952: 8.
Ardeirallus sturmii; McLachlan & Liversidge, 1957: 28; Praed & Grant, 1962: 72.
Ixobrychus sturmii; C.B.C., 1963: 60.

Stark & Sclater's record from the Orange–Vaal confluence and records from Paarl, Malmesbury and Cape Town last century are the only records.

H, S.

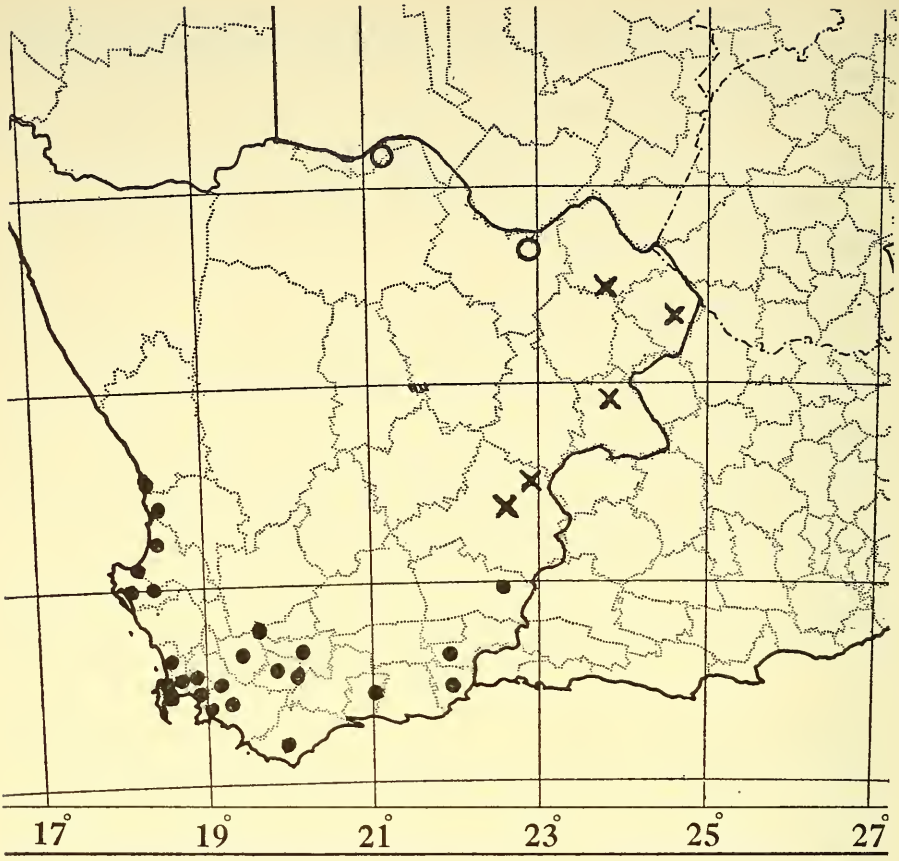
Genus NYCTICORAX Forst.

Nycticorax nycticorax nycticorax (L.) Night Heron

Ardea nycticorax Linnaeus, Systema naturae, ed. 10, 1758: 142. South Europe.
Nycticorax nycticorax nycticorax; Vincent, 1952: 8; McLachlan & Liversidge, 1957: 30; Praed & Grant, 1962: 69; C.B.C., 1963: 17.
Nycticorax nycticorax; Macdonald, 1957: 45.

Locally common in the south; but only one record from north of Calitzdorp (Map 14). Juveniles, at least, move considerable distances, one ringed at Rondevlei having been recovered at Fort Beaufort, 475 miles away, three years later.

Cl 1, Ct, M, MB, O, PA, Rb, Rv 1, **S**, Sw 1, Sw 2, V, Wo 1, Wo 2.



MAP 14. Distribution in the Western Cape of *Nycticorax nycticorax*, *Aquila rapax* and *Poliohierax semitorquatus*. Dots: *N. nycticorax*; crosses: *A. rapax*; open circles: *P. semitorquatus*.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R. Col.									2	1		
Ind.									2	2	5	

Genus BUTORIDES Blyth

[**Butorides striatus atricapillus** (Afz.) Green-backed Heron

Ardea atricapillus Afzelius, K. Svenska VetenskAkad. Handl. (n.s.), 25, 1804: 264. Sierra Leone.

Butorides striata atricapilla; Vincent, 1952: 8.

Butorides striatus atricapillus; McLachlan & Liversidge, 1957: 25; Praed & Grant, 1962: 67.

Praed & Grant (1962) give the range of this species throughout as southern Africa, but I know of no records from within western Cape limits.]

Genus ARDEOLA Boie

On the limits of this genus, see also South African Ornithological Society, List Committee Report (1958).

Ardeola ibis ibis (L.) Cattle Egret

Ardea ibis Linnaeus, Systema naturae, ed. 10, 1758: 144. Egypt.
Bubulcus ibis ibis; Vincent, 1952: 8.
Bubulcus ibis; Macdonald, 1957: 45; McLachlan & Liversidge, 1957: 24; Praed & Grant, 1962: 64.
Ardeola ibis ibis; C.B.C., 1963: 16.

Clancey (1959*a*) has proposed to separate birds from the Ethiopian Region as *A.i. ruficrista* (Bp.), on the ground that they do not show a seasonal change of colour of the soft parts. I do not feel that this is sufficient reason by itself for such a step, however, nor is it universally true of South African birds. See also South African Ornithological Society, List Committee Report (1960).

A common breeding resident in the Winter Rainfall area; much more sporadic on the Karoo, where a casual visitor only except on the big vleis, when these hold water. Young birds disperse widely (see McLachlan, 1966).

BW 2, C 1, C 2, Ce 1, Ce 2, Cl 1, Cl 2, Cn, Ct, L, Lg, M, MB, N 1, O, P, PA, R, Rb, Rv 1, Rv 2, **S**, Su 2, Sw 1, Sw 2, T, U, V, VW, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R. Col.									7	4		
Ind.											3	
Karoo											1	

[**Ardeola rufiventris** (Sund.) Rufous-bellied Heron

Ardea rufiventris Sundevall, Öfvers. K. VetenskAkad. Förh. for 1850, 1851: 110. Mooi River, near Potchefstroom.
Erythrocnus rufiventris; Vincent, 1952: 8; McLachlan & Liversidge, 1957: 28; Praed & Grant, 1962: 68.

White (1950) places this species in the genus *Butorides* Blythe, a proceeding accepted in the South African Ornithological Society, List Committee Report (1958). I have followed Bock (1956), since I do not now agree that *rufiventris* is particularly similar to other *Butorides* species.

Praed & Grant (1962) record it as 'throughout [Southern Africa] except the Cape Peninsula', but I know of no records from our area.]

Ardeola ralloides (Scop.) Squacco Heron

Ardea ralloides Scopoli, Annus I historico naturalis, 1769: 88. Carniola.
Ardea ralloides; Vincent, 1952: 8, McLachlan & Liversidge, 1957: 24; Praed & Grant, 1962: 65; C.B.C., 1963: 17.

A rare straggler recorded only from the south-west and from Upington. S, U.

Genus EGRETTA Forst.

On the limits of this genus, see White (1950) and the South African Ornithological Society, List Committee Report (1958). Bock (1956) places *ardesiaca* in *Hydranassa* Baird, but his reasons for the retention of this genus do not seem to me very convincing.

Egretta ardesiaca (Wagl.) Black Heron

Ardea ardesiaca Wagler, Systema avium, Ardea, 1827: no. 20. Senegambia.
Melanophoyx ardesiaca; Vincent, 1952: 8; McLachlan & Liversidge, 1957: 28; Praed & Grant, 1962: 62; C.B.C., 1955: 13.
Egretta ardesiaca; C.B.C., 1963: 16.

An uncommon summer visitor to the south coast as far as False Bay. Elsewhere, there is only a single record for the Beaufort West District.

BW 2, MB, S.

Egretta garzetta garzetta (L.) Little Egret

Ardea garzetta Linnaeus, Systema naturae, ed. 12, 1, 1766: 237. In Oriente (restricted to Malalbergo, N. Italy, Grant & M.-Praed, Bull. Br. Orn. Club, 53, 1933: 194).
Egretta garzetta garzetta; Vincent, 1952: 8, McLachlan & Liversidge, 1957: 23; Praed & Grant, 1962: 63; C.B.C., 1963: 16.
Egretta garzetta; Macdonald, 1957: 45.

Common in the Winter Rainfall area and Little Karoo; elsewhere, recorded only from the Orange River, Steinkopf and Vanwyksvlei.

Ce 1, Ce 2, Cl 1, Ct, L, M, MB, N 1, N 3, O, PA, R, Rb, Rv 1, Rv 2, **S**, Sw 1, T, U, V, Wo 1, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R. Col.	1								6	2		2
Ind.									1			

Egretta intermedia brachyrhynchos (Brehm) Yellow-billed Egret

Herodias (Egretta) brachyrhynchos Brehm, J. Orn., Lpz., 1858: 471. Blue Nile.
Mesophoyx intermedia brachyrhynchos; Vincent, 1952: 7; Praed & Grant, 1962: 61.
Mesophoyx intermedia; Macdonald, 1957: 45.
Mesophoyx intermedius brachyrhynchus; McLachlan & Liversidge, 1957: 24.
Egretta intermedia brachyrhynchos; C.B.C., 1963: 16.

Common in the Winter Rainfall area and Little Karoo; elsewhere, recorded only from Upington and, as a stray, from the Beaufort West and Philipstown districts.

BW 2, Cl 1, Cn, Ct, MB, O, P, Rb, S, Sw 1, T, U, V, Wo 1, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R. Col.									6	2		

Egretta alba melanorhyncha (Wagl.) Great White Egret

Ardea melanorhyncha Wagler, Systema avium, Addit., 1827: (last page). Senegambia.

Casmerodius alba melanorhynchos; Vincent, 1952: 7.

Casmerodius albus; Macdonald, 1957: 44.

Casmerodius albus melanorhynchus; McLachlan & Liversidge, 1957: 23.

Casmerodius albus melanorhynchos; Praed & Grant, 1962: 61.

Egretta alba melanorhyncha; C.B.C., 1963: 16.

A rare straggler, recorded only from the extreme south-west.

S.

Genus ARDEA L.

Ardea purpurea purpurea L. Purple Heron

Ardea purpurea Linnaeus, Systema naturae, ed. 12, 1, 1766: 236. In Oriente (restricted to France, Stresemann, Avifauna macedonica, 1920: 226); Macdonald, 1957: 44.

Ardea purpurea purpurea; Vincent, 1952: 7; McLachlan & Liversidge, 1957: 22; C.B.C., 1963: 16.

Pyrrherhodia purpurea purpurea; Praed & Grant, 1962: 60.

Widely distributed in reed-beds in the Winter Rainfall area; elsewhere, recorded only from Oudtshoorn and Upington.

Ce 2, Cl 1, M, O, Rb, **S**, Sw 1, T, U, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1	1	3		

Ardea cinerea cinerea L. Grey Heron

Ardea cinerea Linnaeus, Systema naturae, ed. 10, 1758: 143. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1903–23); Macdonald, 1957: 44.

Ardea cinerea cinerea; Vincent, 1952: 7; McLachlan & Liversidge, 1957: 21, Praed & Grant, 1962: 57; C.B.C., 1963: 15.

Widely and generally distributed where there is water. All districts except BW 1, BW 3, H and U.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1	1					7	38	15	1	1	7
Karoo								1				

Ardea melanocephala Vig. & Childr. Black-headed Heron

Ardea melanocephala Vigors & Children, in Denham & Clapperton's Narrative of travels . . . in northern and central Africa, 2, App. 21, 1826: 201. Near Lake Chad; Vincent, 1952: 7; McLachlan & Liversidge, 1957: 21; Praed & Grant, 1962: 58; C.B.C., 1963: 16.

Widely and generally distributed within reach of water. Although often foraging on dry land, some sort of water must be available in the vicinity.

B, BW 2, C 1, C 2, Ce 1, Ce 2, Cl 1, Cl 2, Cn, Ct, D, K, L, Lg, M, MB, N 1, N 2, N 3, N 4, O, P, PA, Pr, R, Rb, Rv 1, S, Su 1, Su 2, Sw 1, Sw 2, T, U, V, VW, W, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	2					2	2	5	9	11	1	8
Karoo											1	1

Ardea goliath Cretzsch. Goliath Heron

Ardea goliath Cretzschmar, in Rüppell's Atlas zu der Reise im nördlichen Afrika, 1826: 39, pl. 36. Bahr-el-Abiad—White Nile; Vincent, 1952: 7; McLachlan & Liversidge, 1957: 21; Praed & Grant, 1962: 59; C.B.C., 1963: 16.

A rare straggler, recorded from the extreme north and south only.

P, S, U.

Family **Scopidae**

Genus SCOPUS Briss.

Scopus umbretta umbretta Gmel. Hamerkop

Scopus umbretta Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 618. Senegal (Sclater, Systema avium ethiopicarum, 1, 1924: 31); Macdonald, 1957: 45.

Scopus umbretta umbretta; Vincent, 1952; McLachlan & Liversidge, 1957: 32; C.B.C., 1963: 17.

Scopus umbretta bannermani; Praed & Grant, 1962: 76.

Generally distributed and common wherever there is water.

BW 1, BW 2, C 2, Ce 1, Ce 2, Cl 1, Cn, Ct, D, F, L, Lg, M, MB, N 1, N 2, N 3, O, P, PA, R, Rb, Rv 1, Rv 2, S, Su 2, Sw 1, Sw 2, T, U, V, VW, W, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1	2	3	2	1

Family **Ciconiidae**

Genus CICONIA Briss.

On the limits of this genus, see White (1950).

Ciconia ciconia ciconia (L.) White Stork

Ardea Ciconia Linnaeus, Systema naturae, ed. 10, 1758: 142. Europe, Asia, Africa (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1903–23).

Ciconia ciconia ciconia; Vincent, 1952: 9; McLachlan & Liversidge, 1957: 3; Praed & Grant, 1962: 78; C.B.C., 1963: 17.

A non-breeding, summer visitor from the Palaearctic, chiefly in the east, but reaching the Cape Peninsula in the south-west and the lower Orange in the north-west. A pair bred in the Oudtshoorn District for eight years (Roberts, 1941*a*, 1941*b*, 1942) until the tree holding the nest collapsed; and another pair in the Bredasdorp District in 1961–2–3 (and, according to local information, for several years before that) (Martin, Martin & Robinson, 1962). One of the young of the 1962 brood was recovered in north-eastern Rhodesia. By 1964, three nests were known in the Bredasdorp District; and subsequently a nest was located in the Mossel Bay District by Professor C. J. Uys (1966).

BW 2, C 1, Ca 1, Ce 2, Cl 1, Cn, Ct, D, L, Lg, M, MB, N 1, O, P, PA, R, Rb, Rv 2, S, Sw 1, V, VW, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									1	2		

Ciconia nigra (L.) Black Stork

Ardea nigra Linnaeus, Systema naturae, ed. 10, 1758: 142. North Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen, Fauna, 1903–23).

Ciconia nigra; Vincent, 1952: 9; Macdonald, 1957: 45; McLachlan & Liversidge, 1957: 36; Praed & Grant, 1962: 79; C.B.C., 1963: 18.

Widely, but sparingly distributed, even on the Karoo. Breeds in the Williston District (MacLeod & Martin).

BW 2, C 1, Ce 2, Ce 3, Cn, Ct, Lg, M, MB, O, P, PA, Rb, **S**, Su 2, Sw 1, T, VW, W, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo								1				

[**Ciconia episcopus microscelis** Gray Woolley-necked Stork

Ciconia microscelis Gray, The genera of birds, 3, 1848: 561, pl. 151. South Africa.

Dissoura episcopus microscelis; Vincent, 1952: 9; Roberts, 1957: 35; Praed & Grant, 1962: 80.

Praed & Grant (1962) give the range as 'Cape Province but not Cape Peninsula'. I know of no records from within our area, however.]

Ciconia abdimii Licht. White-bellied Stork

Ciconia abdimii Lichtenstein, Verzeichniss der Doubletten . . . , 1823: 76. Near Dongola.

Sphenorhynchus abdimii; Vincent, 1952: 9; McLachlan & Liversidge, 1957: 35; Praed & Grant, 1962: 81.

An intra-African, non-breeding migrant that occasionally reaches the north-east part of our area.

BW 2, P, U.

Genus ANASTOMUS Bonnat.

Anastomus lamelligerus lamelligerus Temm. African Open-bill

Anastomus lamelligerus Temminck, Nouveau recueil de planches coloriées d'oiseaux, 40, 1823: pl. 236. Senegal.

Anastomus lamelligerus lamelligerus; Vincent, 1952: 9; McLachlan & Liversidge, 1957: 33; Praed & Grant, 1962: 82; C.B.C., 1963: 60.

There is an old record of Verreaux from the Berg River; and it probably occurs in the north-east as a straggler.

S.

Genus EPHIPPIORHYNCHUS Bp.

Ephippiorhynchus senegalensis (Shaw) Saddle-billed Stork

Mycteria senegalensis Shaw, Trans. Linn. Soc. Lond., 5, 1800: 35, pl. 33. Senegal.

Ephippiorhynchus senegalensis; Vincent, 1952: 9; McLachlan & Liversidge, 1957: 34; Praed & Grant, 1962: 83.

Once recorded from the Beaufort West District (Quinton, 1956).

BW 2.

Genus LEPTOPTILOS Less.

Leptoptilos crumeniferus (Less.) Marabou

Ciconia crumeniferus Lesson, Traité d'ornithologie, 1831: 585. Senegal.

Leptoptilos crumeniferus; Vincent, 1952: 9; Macdonald, 1957: 46; McLachlan & Liversidge, 1957: 32; Praed & Grant, 1962: 84.

Twice recorded from the Philipstown District (Hare, 1932; and G. Battenhaussen, personal communication) and once from Oudtshoorn (Duxbury, pers. comm.). A rare straggler from further north and east.

O, P.

Genus IBIS Lacép.

Ibis ibis (L.) Wood Ibis

Tantalus ibis Linnaeus, Systema naturae, ed. 12, 1, 1766: 241. Egypt.

Ibis ibis; Vincent, 1952: 9; Macdonald, 1957: 46; McLachlan & Liversidge, 1957: 34; Praed & Grant, 1962: 85; C.B.C., 1963: 18.

Frequent on dams and vleis on the Karoo; occasionally straggling into the Winter Rainfall area.

BW 2, Ce 2, Ct, D, F, MB, N 1, O, P, PA, Pr, Rb, Rv 1, S, VW, Wo 1, Wo 3.

Family **Threskiornithidae**

Genus THRESKIORNIS Gray

Threskiornis aethiopica aethiopica (Lath.) Sacred Ibis

Tantalus aethiopicus Latham, Index ornithologicus, 2, 1790; 706. Egypt.

Threskiornis aethiopicus aethiopicus; Vincent, 1952: 10; McLachlan & Liversidge, 1957: 37; Praed & Grant, 1962: 86; C.B.C., 1963: 18.

Widely distributed where large bodies of water are available.

B, BW 2, Cl, Ce 1, Ce 2, Cl 1, Cn, F, L, M, MB, N 1, O, P, PA, R, Rb, Rv 1, **S**, Su 2, Sw 2, T, V, VW, W, Wo 1, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R. Col.	1								1	2	2	2
Ind.	1									10	2	
Karoo											2	

Genus GERONTICUS Wagl.

Geronticus calvus (Bodd.) Bald Ibis

Tantalus calvus Boddaert, Table des planches enluminéez . . . , 1783: 52. Cape of Good Hope.

Geronticus calvus; Vincent, 1952: 10; McLachlan & Liversidge, 1957: 37; Praed & Grant, 1962: 87; C.B.C., 1963: 60.

A mountain bird, probably now extinct in our area.

Ce 1, **H**, N 1, P, S.

Genus BOSTRYCHIA Reichenbach

Bostrychia hagedash hagedash (Latham) Hadedah

Tantalus hagedash Latham, Index ornithologicus, 2, 1790: 709. Cape of Good Hope.

Hagedashia hagedash hagedash; Vincent, 1952: 10; McLachlan & Liversidge, 1957: 39; Praed & Grant, 1962: 88.

Recorded only from Oudtshoorn; but may well occur, at least occasionally, in eastern Mossel Bay.

O.

Genus PLEGADIS Kaup

Plegadis falcinellus falcinellus (L.) Glossy Ibis

Tantalus falcinellus Linnaeus, Systema naturae, ed. 12, 1, 1766: 241. Austria, Italy (restricted to Austria).

Plegadis falcinellus falcinellus; Vincent, 1952: 10; McLachlan & Liversidge, 1957: 38; Praed & Grant, 1962: 89; C.B.C., 1963: 18.

A rare visitor, recorded only from the extreme south-west, where, however, it has attempted to breed.

S.

Genus PLATALEA L.

Platalea alba Scop. African Spoonbill

Platalea alba Scopoli, Deliciae florae et faunae insubricae, 2, 1786: 92. Luzon (corrected to Cape of Good Hope, W. L. Sclater, Systema avium ethiopicarum, 1, 1924: 38); Vincent, 1952: 10; Macdonald, 1957: 46; McLachlan & Liversidge, 1957: 39; Praed & Grant, 1962: 90; C.B.C., 1963: 18.

Widely distributed but apparently very local. Breeding recorded on the Berg River, at Reinerskraal (Bredasdorp) and in the Victoria West and Sutherland districts. Appears to be increasing in the south-west and in 1966 nested for the first time at Rondevlei.

B, BW 2, Ce 1, Ce 2, D, F, P, **S**, Su 2, V, VW, Wo 1, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R. Col.									2	1		1
Ind.									9	12	6	
Karoo Col.									1		1	

Family **Phoenicopteridae**

Genus PHOENICOPTERUS L.

On the limits of this genus, see White (1951: 25).

Phoenicopterus roseus Pall. Greater Flamingo

Phoenicopterus roseus Pallas, Zoographia Rosso–Asiatica, 2, 1811: 207. Europe (restricted to mouth of River Volga).

Phoenicopterus ruber roseus; Vincent, 1952: 10; McLachlan & Liversidge, 1957: 41; Praed & Grant, 1962: 92; C.B.C., 1963: 18.

I consider it is misleading to place *roseus* as a subspecies of the American *ruber* L.

A visitor to large vleis, salt pans and lagoons, in fluctuating numbers; a breeding colony found near De Hoop vlei, Bredasdorp District, in 1960 is the first definite record of large-scale breeding within the borders of South Africa (Uys *et al.*, 1963). Breeding again in same area in 1961, 1962 and 1963.

B, BW 2, C 1, Cl 1, Cn, D, MB, N 1, P, Rv 1, **S**, Sw 1, V, VW.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R. Col.										2	2	1

Phoenicopterus minor Geoffr. Lesser Flamingo

Phoenicopterus minor Geoffroy, Bull. Sci. Soc. philomatique, Paris, 1 (2), 13, 1798: 98. Senegal.

Phoeniconaias minor; Vincent, 1952: 10; McLachlan & Liversidge, 1957: 41; Praed & Grant, 1962: 93; C.B.C., 1963: 18.

A non-breeding visitor to fresh and salt water, chiefly near the coast, but also recorded from northern Calvinia.

BW 2, C 1, Cl 1, Cn, N 1, **S**, T, V, VW.

Family **Anatidae**

Arrangement and genera within this family follow Delacour & Mayr (1945) and Delacour (1954–9).

Genus DENDROCYGNA Swains.

Dendrocygna bicolor (Vieill.) Fulvous Tree Duck

Anas bicolor Vieillot, Nouvelle dictionnaire d'histoire naturelle, 5, 1816: 136. Paraguay.

Dendrocygna bicolor; Vincent, 1952: 11; Delacour, 1954: 41; McLachlan & Liversidge, 1957: 51; Praed & Grant, 1962: 109; C.B.C., 1963: 19.

Only recorded from the extreme south-west, where it appears to be an irregular visitor, which, however, has bred there.

S.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1				

Dendrocygna viduata (L.) White-faced Duck

Anas viduata Linnaeus, Systema naturae, ed. 12, 1, 1766: 205. Cartagena, Venezuela.

Dendrocygna viduata; Vincent, 1952: 10; Delacour, 1954: 45; Macdonald, 1957: 47; McLachlan & Liversidge, 1957: 51; Praed & Grant, 1962: 108; C.B.C., 1963: 19.

A rare straggler, recorded only from the extreme south-west and north-west of the area.

N 1, S.

Genus TADORNA Boie

Tadorna cana (Gmel.) African Shelduck

Anas cana Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 510. Cape of Good Hope.

Tadorna cana; Vincent, 1952: 11; Delacour, 1954: 235; McLachlan & Liversidge, 1957: 45; C.B.C., 1963: 19.

Casaca cana; Macdonald, 1957: 47; Praed & Grant, 1962: 114.

Generally distributed in the Karoo; less general in the Winter Rainfall area, where it is chiefly a summer visitor, apparently in increasing numbers.

All districts except BW 3, N 4, Pr and Sw 2. Coll.: **BW 2, S.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1			1	
Karoo									4			

Genus ALOPOCHEN Stejneger

Alopochen aegyptiacus (L.) Egyptian Goose

Anas aegyptiaca Linnaeus, Systema naturae, ed. 12, 1, 1766: 197. Egypt.

Alopochen aegyptiaca; Vincent, 1962: 11; Delacour, 1954: 235; Macdonald, 1957: 47; Praed & Grant, 1962: 112; C.B.C., 1963: 19.

Alopochen aegyptiacus; McLachlan & Liversidge, 1957: 44.

Widely and generally distributed wherever there is water; but in the south-west, relatively more abundant on large, comparatively barren vleis (e.g. Brandvlei, near Worcester) than on the richer vleis (e.g. Rondevlei, Rietvlei), and especially where there is good grazing in the vicinity.

All districts except Pr and Rv 2. Coll.: **S.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1				1		7	18	19	13	5	6
Karoo									3		2	

Genus ANAS L.

Anas sparsa sparsa Eyton Black Duck

Anas sparsa Eyton, A monograph on the Anatidae, 1838: 142. South Africa (restricted to the Olifants River, Cape Province); Macdonald, 1957: 46.

Anas sparsa sparsa; Vincent, 1952: 11; Delacour, 1956: 25; McLachlan & Liversidge, 1957: 48; Praed & Grant, 1962: 103; C.B.C., 1963: 19.

A river duck rare on ordinary vleis and dams and never present anywhere in large numbers; but not confined to tree-lined rivers, for it occurs on the Karoo as well as in the Winter Rainfall area (e.g. in De Aar, Fraserburg and Williston).

BW 2, C 2, Ce 1, Cl 1, D, F, H, K, Lg, M, MB, N 4, O, P, PA, R, Rb, S, Su 1, Su 2, Sw 1, T, U, VW, W, Wo 1, **Wo 2.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								5			3	

[**Anas platyrhynchos** L. Mallard

Anas platyrhynchos Linnaeus, Systema naturae, ed. 10, 1758: 125. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1903–23); C.B.C., 1963: 60.

Feral birds are occasionally encountered in the south.]

Anas undulata undulata Dub. Yellow-billed Duck

Anas undulata Dubois, Ornithologische Gallerie, 1, 1837: 119, pl. 77. Cape of Good Hope (sometimes unnecessarily amended to Piketberg).

Anas undulata undulata; Vincent, 1952: 11; Delacour, 1956: 69; McLachlan & Liversidge, 1957: 49; Praed & Grant, 1962: 102; C.B.C., 1963: 19.

On the general distribution and biology of this species, see Rowan (1963*b*).

A nomadic species, often extremely abundant in pre- and post-breedino flocks on vleis in the Winter Rainfall area. Much less common on the Karog and no records at all from the north-west.

B, BW 1, BW 2, C 1, C 2, Ce 1, Ce 2, Cl 1, Cl 2, Cn, Ct, D, F, H, L, Lg, M, MB, O, P, PA, Rb, Rv 1, **S**, Su 2, Sw 1, Sw 2, T, V, VW, W, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.			1			12	23	40	40	30	5	1

Anas erythrorhyncha Gmel. Red-billed Teal

Anas erythrorhyncha Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 517. Cape of Good Hope; Vincent, 1952: 11; Delacour, 1956: 136; Macdonald, 1957: 47; McLachlan & Liversidge, 1957: 49; Praed & Grant, 1962: 106; C.B.C., 1963: 20.

Chiefly a breeding visitor to the Winter Rainfall area, where it may be numerous at times, especially on permanent vleis; and a bird of passage on the Karoo.

B, BW 2, C 1, C 2, Ce 1, Ce 2, Cl 1, Cn, D, F, H, M, MB, N 1, N 3, O, P, PA, R, Rb, Rv 1, **S**, Su 2, Sw 1, T, **U**, VW, Wo 1, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	2			1		4	3	5	5	8	6	3
Karoo										1		

Anas capensis Gmel. Cape Wigeon

Anas capensis Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 527. Cape of Good Hope; Vincent, 1952: 11; Delacour, 1956: 144; Macdonald, 1957: 46; McLachlan & Liversidge, 1957: 50; Praed & Grant, 1962: 104; C.B.C., 1963: 19.

Widely and generally distributed on inland waters and much more tolerant of brak conditions than most species of *Anas*. A resident, or at most nomadic, species, which seems to have greatly increased in numbers in Winter Rainfall area over the past decade.

B, BW 2, C 1, Cl 1, Cn, D, F, H, K, MB, N 1, N 3, P, PA, R, Rb, **S**, Su 1, Su 2, T, V, VW, W, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1		3	1	3	4	7	11	14	8	8	1
Karoo			1			3	4			3		

Anas hottentota (Eyton) Hottentot Teal

Queriquedula hottentota Eyton, A monograph on the Anatidae, 1838: 129. Orange River.

Anas punctata punctata; Vincent, 1952: 11.

Anas punctata; Delacour, 1956: 149; McLachlan & Liversidge, 1957: 50.

Anas hottentota; Praed & Grant, 1962: 105; C.B.C., 1963: 61.

The name *punctata* properly belongs to the Maccoa Duck, see Ride & Cain (1954).

A very rare straggler to our area for which there are no recent records. BW 2, N 1, S.

Anas smithii (Hart.) Cape Shoveller

Spatula smithii Hartert, Katalog der Vogelsammlung . . . , 1891: 331. No locality (Cape District, Grant & M.-Praed, Bull. Br. Orn. Club, 53, 1933: 242).

Spatula capensis; Vincent, 1952: 11; McLachlan & Liversidge, 1957: 47; Praed & Grant, 1962: 101.

Anas smithii; Delacour, 1956: 179; C.B.C., 1963: 20.

On the suppression of the genus *Spatula*, the specific name *capensis* Eyton, 1838, is preoccupied by *Anas capensis* Gmelin, 1789.

A breeding partial migrant in the south (breeding as far north as Vanwyksvlei); elsewhere, an off-season visitor and passage migrant (Winterbottom & Middlemiss, 1960).

B, C 1, C 2, Ce 1, Ce 2, Cl 1, Cn, F, H, MB, N 1, O, P, PA, **S**, Su 2, Sw 1, T, W, Wo 1, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.		1		2			14	70	89	54	15	2
Karoo									1			

Anas clypeata L. European Shoveller

Anas clypeata Linnaeus, Systema naturae, ed. 10, 1758: 124. Europe (restricted to S. Sweden); Delacour, 1956: 187; C.B.C., 1963: 20.

Spatula clypeata; Vincent, 1952: 11; McLachlan & Liversidge, 1957: 46; Praed & Grant, 1962: 100.

Apparently a rare straggler from the Palaearctic to the extreme south; but some of the records may be due to escapes from captivity—see Winterbottom & Middlemiss (1960) for discussion.

S.

Genus AYTHYA Boie

[**Aythya ferina** (L.) European Pochard

Anas ferina Linnaeus, Systema naturae, ed. 10, 1758: 126. Europe (restricted to Sweden, Hartert, Die Vögel der Paläarktischen Fauna, 1903–23).
Aythya ferina; C.B.C., 1963: 61.

Records from the Cape Peninsula vleis, even if substantiated by specimens, would be open to question as escapes from captivity.]

Genus NETTA Kaup

Netta erythrophthalma brunnea (Eyton) Southern Pochard

Nyroca brunnea Eyton, A monograph on the Anatidae, 1838: 161, pl. 23. Southern Africa.
Netta erythrophthalma; Vincent, 1952: 11; McLachlan & Liversidge, 1957: 52.
Aythya erythrophthalma; Macdonald, 1957: 46; Praed & Grant, 1962: 99.
Netta erythrophthalma brunnea; Delacour, 1959: 55; C.B.C., 1963: 20.

On the status and distribution of this species in Africa generally, see Middlemiss (1958*a*); on the subspecific distinctness of *brunnea*, see Scott (1957) and Delacour (1954–9).

There appear to be two populations of this bird in the south-west, a small, resident, breeding one and a much larger, non-breeding one of summer visitors (Middlemiss, 1958; Winterbottom, 1964*c*). Status beyond the south-west uncertain and there are comparatively few records. It prefers water of moderate depth and is rare in shallow pans.

C 1, Ce 1, Ce 2, Cl 1, Cl 2, F, MB, O, P, PA, R, Rb, S, T, Sw 2, VW, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.							1	1	2	8	1	3

Genus NETTAPUS Brandt

Nettapus auritus (Bodd.) Pygmy Goose

Anas aurita Boddaert, Table des planches enluminéez . . . , 1783: 48. Madagascar.
Nettapus auritus; Vincent, 1952: 11; McLachlan & Liversidge, 1957: 46; Delacour, 1959: 111; Praed & Grant, 1962: 110; C.B.C., 1963: 61.

Stark & Sclater give a record for Mossel Bay, and Townsend records it once from Kraankuil, Hopetown District. The map of its distribution given

in Delacour (1954–9) is definitely misleading. There is an old skin in the South African Museum labelled 'Cape Flats', but the possibility of this being an escape from captivity cannot be excluded.

H, MB.

Genus SARKIDIORNIS Eyton

Sarkidiornis melanotos melanotos (Penn.) Knob-nosed Duck

Anser melanotus Pennant, Indian zoology, 1769: 12, pl. 11. Ceylon.

Sarkidiornis melanotos melanotos; Vincent, 1952: 12; Delacour, 1959: 121; C.B.C., 1963: 20.

Sarkidiornis melanotos; Macdonald, 1957: 47; McLachlan & Liversidge, 1957: 45; Praed & Grant, 1962: 111.

Recorded as a rare straggler in the Cape Peninsula, Mossel Bay and Oudtshoorn and possibly one intermediate locality. No other records. The map in Delacour (1954–9), showing it to be a regular inhabitant of the western Cape, is incorrect.

MB, O, S.

Genus PLECTROPTERUS Steph.

For another view of the systematic position of this genus, see Woolfenden (1961).

Plectropterus gambensis (L.) Spur-winged Goose

Anas gambensis Linnaeus, Systema naturae, ed. 12, 1, 1766: 195. Gambia.

Plectropterus gambensis; Vincent, 1952: 12; McLachlan & Liversidge, 1957: 44; Praed & Grant, 1962: 113; C.B.C., 1963: 20.

Plectropterus gambensis niger; Delacour, 1959: 139.

Most African workers do not now recognize the race *niger* P. L. Sclater (Proc. zool. Soc. Lond., 1877: 47—Zanzibar (said to be an error for Cape Province)), though this is upheld by Scott (1957) and Delacour (1954). See, however, the evidence presented by Haagner (1909) for a contrary view.

Widely distributed, commonest in the south but occurring also on the larger bodies of water on the Karoo, despite Delacour's statement (1959) that it does not occur in the south and west. In view of this, a map (Map 15) showing recorded localities in the western Cape is given.

C 1, C 2, Ce 2, Cn, F, H, Lg, MB, O, PA, R, Rb, Rv 1, S, Sw 1, T, VW, Wo 1, Wo 2, Wo 3.

Breeding

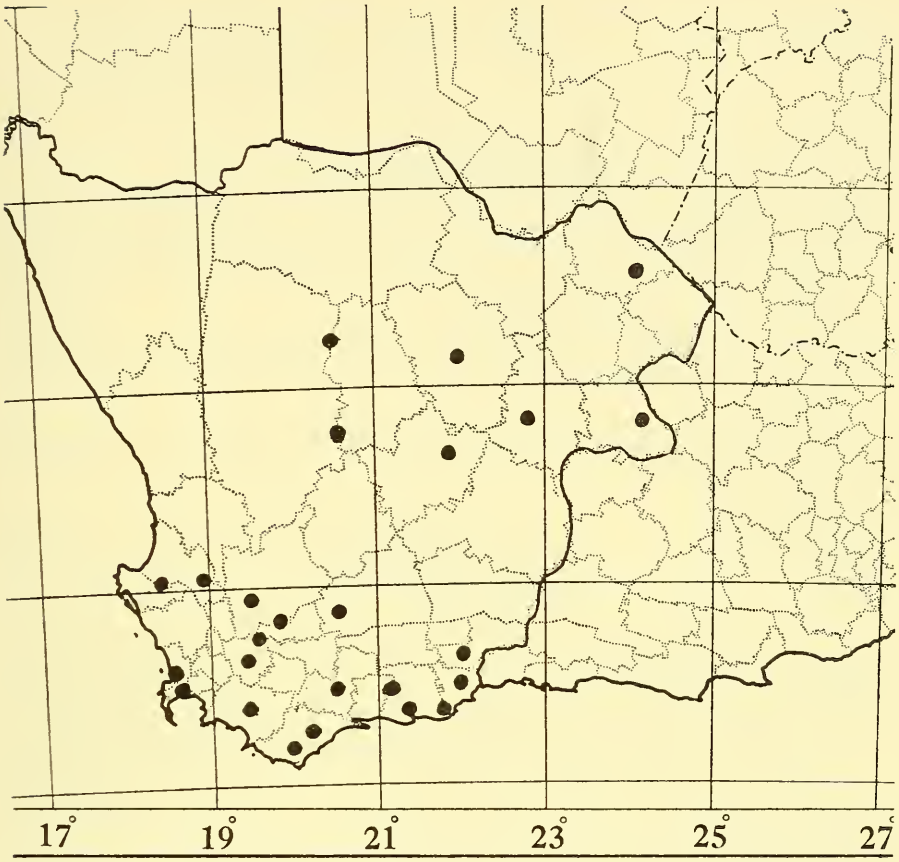
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										2		

Genus OXYURA Bp.

Oxyura punctata (Burchell) Maccoa Duck

Anas punctata Burchell, Travels in the interior of southern Africa, 1, 1822: 283.

Zak R., Fraserburg District.



Map 15. Distribution in the Western Cape of *Plectropterus gambensis*

Oxyura jamaicensis maccoa; Vincent, 1952: 12.
Oxyura maccoa; McLachlan & Liversidge, 1957: 53; Delacour, 1959: 237.
Oxyura punctata; Praed & Grant, 1962: 97.
Oxyura jamacensis punctata; C.B.C., 1963: 21.

The name *punctata* has priority over *maccoa* (Eyton)—see Ride & Cain (1954). Delacour & Mayr (1945) keep *australis* (Gould) as a separate species from *jamaicensis* (Gmel.) and place the Maccoa Duck as a subspecies of that; Scott (1957) and Delacour (1954–9) regard it as a full species; Vincent (1952) fuses it with *jamaicensis*. After seeing *O. jamaicensis* in life, I am unable to agree with this last view and have followed Scott & Delacour.

An enigmatic species, whose status is difficult to assess. Sometimes present in considerable numbers, especially on the Karoo. Very local in the Winter Rainfall area and subject to considerable fluctuations in numbers, disappearing without obvious reason from vleis where it had formerly been abundant.

C 1, C 2, Ce 1, Ce 2, Cl 1, Cn, D, F, L, N 1, P, **R**, **S**, Su 2, T, VW.
Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1							1	2	6	8	1

Genus THALASSORNIS Eyton

Thalassornis leuconotus leuconotus Eyton White-backed Duck

Thalassornis leuconotus Eyton, A monograph on the Anatidae, 1838: 168. South Africa (restricted to Verlorenvlei, Piketberg, C.P., Grant & M.-Praed, Bull. Br. Orn. Club, 53, 1933: 242).

Thalassornis leuconotus leuconotus; Vincent, 1952: 12; McLachlan & Liversidge, 1957: 54; Delacour, 1959: 254; Praed & Grant, 1962: 98; C.B.C., 1963: 21.

An uncommon species, recorded only from the south-west and, long ago, from Vanwyksvlei.

B, Cn, **S**, Sw 1.

Family **Accipitridae**

Genus AEGYPIUS Savig.

On the limits of this genus, see White (1951).

Aegypius tracheliotus (Forst.) Lappet-faced Vulture

Vultur tracheliotus Forster, in Levaillant's Reisen in das innere von Afrika, 3, 1796: 362, pl. 12. Great Namaqualand (Winterbottom, Ostrich, 36, 1965: 91).

Torgos tracheliotus; Vincent, 1952: 12; Macdonald, 1957: 48; McLachlan & Liversidge, 1957: 56; C.B.C., 1963: 61.

Torgos tracheliotus tracheliotus; Swann, 1930: 46; Praed & Grant, 1962: 127.

Formerly widely distributed but now killed out in most of the settled areas and the only recent record is from the Hopetown District.

BW 2, D, H, N 2, P, PA, **S**, Sw 1.

[**Aegypius occipitalis** (Burch.) White-headed Vulture

Vultur occipitalis Burchell, Travels in the interior of southern Africa, 2, 1824: 329. Makkwari River, near Kuruman.

Trigonoceps occipitalis; Swann, 1930: 53; Vincent, 1952: 12; McLachlan & Liversidge, 1957: 56; Praed & Grant, 1962: 128.

May occur as a straggler in the north-east.]

Genus GYPS Savig.

Gyps coprotheres (Forst.) Cape Vulture

Vultur coprotheres Forster, in Levaillant's Naturgeschichte der afrikanischen Vögel, 1798: 35, pl. 10. South Africa (restricted to Cape Town, Winterbottom, Ostrich, 36, 1965: 91).

Gyps coprotheres; Vincent, 1952: 12; McLachlan & Liversidge, 1957: 55; Praed & Grant, 1962: 125; C.B.C., 1963: 21.
Gyps fulvus coprotheres; Swann, 1930: 30.

Formerly probably generally distributed but its numbers have now been drastically reduced, though it is still the commonest vulture in the area. There is a breeding colony on the Potberg, Bredasdorp–Swellendam border, and another in the Philipstown District.

BW 1, BW 2, Cl 2, D, H, MB, N 1, N 2, O, P, Pr, Rb, Rv 1, **S**, Sw 1, V, VW.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R. Col.							1	1				

Genus NEOPHRON Savig.

For limits of this genus, see White (1950).

Neophron percnopterus percnopterus (L.) Egyptian Vulture

Vultur perenopterus(sic) Linnaeus, Systema naturae, ed. 10, 1758: 87. Egypt.
Neophron percnopterus percnopterus; Vincent, 1952: 12.
Neophron percnopterus; C.B.C., 1963: 61.
Neophron percnopterus percnopterus; Swann, 1930: 55; McLachlan & Liversidge, 1957: 57; Praed & Grant, 1962: 129.

Formerly probably widespread but there are no recent records and the species is now extinct, or virtually so, in the western Cape.

BW 2, S, Sw 1.

Neophron monachus pileatus (Burch.) Hooded Vulture

Vultur pileatus Burchell, Travels in the interior of Southern Africa, 2, 1824: 195. Hopetown District, Cape Province.
Necrosyrtes monachus pileatus; Swann, 1930: 61; Vincent, 1952: 13; McLachlan & Liversidge, 1957: 57; Praed & Grant, 1962: 130.

Probably never extended beyond the north-east corner of our area and there are no recent records even from there.

BW 2, H, Pr.

Genus MILVUS Lacép.

Milvus migrans (Bodd.) Black Kite

a. *Milvus migrans migrans* (Bodd.).
Falco migrans Boddaert, Table des planches enluminéez . . . , 1783: 28. France.
Milvus migrans migrans; Swann, 1945: 232; Vincent, 1952: 13; McLachlan & Liversidge, 1957: 69; Praed & Grant, 1962: 147; C.B.C., 1963: 21.
Milvus migrans; Macdonald, 1957: 49.

A migrant which occasionally penetrates our area in summer from further north.

BW 2, S.

b. *Milvus migrans parasitus* (Daud.)

Falco parasitus Daudin, Traité . . . d'ornithologie, 2, 1800: 150. South Africa (restricted to Peddie, Cape Province, Grant & M.–Praed, Bull. Br. Orn. Club, 54, 1934: 109, and corrected to middle Sundays River, Grant & M.–Praed, Ostrich, 29, 1958: 47).

Milvus aegyptius parasitus; Vincent, 1952: 13; McLachlan & Liversidge, 1957: 70; C.B.C., 1963: 21.

Milvus migrans parasitus; Swann, 1945: 237; Praed & Grant, 1962: 147.

A breeding summer migrant, chiefly to the south-west (Berg River) but also on the Karoo (Nelspoort); and a passage migrant, chiefly to the west and south.

BW 2, C 2, Ce 1, Cl 1, F, H, Lg, M, N 1, N 2, N 4, O, P, R, **Rb**, **S**, Sw 1, T, U, V, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									1	30	15	

Genus ELANUS Savig.

Elanus caeruleus caeruleus (Desf.) Black-shouldered Kite

Falco caeruleus Desfontaines, Mém. Acad. r. Paris for 1787, 1789: 503. Near Algiers.

Elanus caeruleus caeruleus; Swann, 1945: 261; Vincent, 1952: 13; McLachlan & Liversidge, 1957: 70; Praed & Grant, 1962: 149; C.B.C., 1963: 21.

Widely distributed but rare in the drier areas though a common resident in the Winter Rainfall area, where it is the most abundant raptor of the flatter places.

BW 2, Ce 1, Ce 2, Cl 1, Ct, F, **H**, K, L, Lg, M, MB, N 1, N 2, N 3, O, P, PA, Rb, Rv 1, Rv 2, **S**, Su 2, Sw 1, T, U, V, VW, **Wo 1**, **Wo 2**, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.			1	1	1		1	7	10	6	3	

Genus MACHEIRHAMPHUS Bp.

For the use of this name, see Deignan (1960).

[**Macheirhamphus alcinus anderssoni** (Gurney) Bat Hawk

Stigonyx anderssoni Gurney; Proc. zool. Soc. Lond., 1865: 618. Otjimbingwe, Damaraland.

Machaerhamphus anderssoni; Swann, 1945: 306.

Machaerhamphus alcinus anderssoni; Vincent, 1952: 13; McLachlan & Liversidge, 1957: 71; Praed & Grant, 1962: 150; C.B.C., 1963: 61.

A sight record from the Berg River needs confirmation.]

Genus PERNIS Cuv.

[**Pernis apivorus apivorus** (L.) Honey Buzzard

Falco apivorus Linnaeus, Systema naturae, ed. 10, 1758: 91. Sweden.

Pernis apivorus apivorus; Vincent, 1952: 13; McLachlan & Liversidge, 1957: 71; Praed & Grant, 1962: 151.

Praed & Grant (1962) record it throughout southern Africa in the non-breeding season; but I know of no records from the western Cape.]

Genus AQUILA Briss.

For limits of this genus, see White (1951).

Aquila verreauxi Less. Black Eagle

Aquila verreauxi Lesson, Centurie zoologique, 1830: 105, pl. 38. Interior of the Cape of Good Hope; Swann, 1945: 16; Vincent, 1952: 13; Macdonald, 1957: 49; McLachlan & Liversidge, 1957: 71; Praed & Grant, 1962: 152; C.B.C., 1963: 22.

A mountain species, widely distributed but much persecuted and now rarely seen except on the Cape Peninsula, where a few pairs still remain in comparative safety.

BW 2, Ce 2, Cl 1, Cl 2, Cn, Ct, K, L, Lg, M, MB, N 3, O, P, PA, Rb, Rv 1, **S**, Sw 1, T, V, W, **Wo 1**, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.					2	4	3					

Aquila rapax rapax (Temm.) Tawny Eagle

Falco rapax Temminck, Nouveau recueil de planches coloriées d'oiseaux, 76, 1828: pl. 455. South Africa.

Aquila rapax rapax; Swann, 1945: 50; Vincent, 1952: 13; McLachlan & Liversidge, 1957: 72; Praed & Grant, 1962: 153.

Aquila rapax; Macdonald, 1957: 50.

Largely shot out; and probably never extended beyond the eastern parts of the Karoo (Map 14).

BW 1, **BW 2**, H, O, P, R, VW.

[**Aquila wahlbergi** Sund. Wahlberg's Eagle

Aquila wahlbergi Sundevall, Öfvers. K. VetenskAkad. Förh. for 1850, 1851: 109. Mohapoani, western Transvaal (Gyldenstolpe, Ibis, 1934: 264–92);

Vincent, 1952: 14; McLachlan & Liversidge, 1957: 73; Praed & Grant, 1962: 156.

Hieraeëtus wahlbergi; Swann, 1945: 85.

Records from Oudtshoorn (Pocock & Winterbottom, 1958) are probably referable to the last species. May possibly occur in the north-east.]

Aquila fasciata spilogaster (Bp.) Hawk Eagle

Spizaëtus spilogaster Bonaparte, Revue. Mag. Zool., 1850: 487. Abyssinia.
Hieraaëtus spilogaster; Swann, 1945: 75; Praed & Grant, 1962: 156.
Hieraaëtus fasciata spilogaster; Vincent, 1952: 14.
Hieraëtus spilogaster; McLachlan & Liversidge, 1957: 75.
Hieraaëtus fasciatus spilogaster; C.B.C., 1963: 22.

Only recorded from the south and there largely shot out.
O, **S**.

Aquila dubia (Smith) Ayres' Hawk Eagle

Morphnus dubius A. Smith, S. Afr. Q.J., 1830: 117. Western Cape Province (Heere Logement, Vanrhynsdorp District—vide Roberts, Ann. Transv. Mus., 18, 1936: 322).
Hieraaëtus ayresii; Swann, 1945: 83.
Hieraaëtus dubius; Vincent, 1952: 14; McLachlan & Liversidge, 1957: 74; Praed & Grant, 1962: 157; C.B.C., 1963: 61.

Only known from the west and south; and there almost extinct today.
Cl 1, N 3, N 4, O, **S**, V.

Aquila pennata (Gmel.) Booted Eagle

Falco pennatus Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (1), 1788: 272. No locality. (France, Swann, A synopsis of the Accipitres, 1922: 113.)
Hieraaëtus pennatus pennatus; Swann, 1945: 77.
Hieraaëtus pennatus; Vincent, 1952: 14; McLachlan & Liversidge, 1957: 74; Praed & Grant, 1962: 158; C.B.C., 1963: 61.

A non-breeding visitor from the Palaearctic, which probably rarely penetrates our area. It is, however, difficult to distinguish in the field from *A. fasciata*.

BW 2, C 2, Cl 1, P, **Rb**, **S**, Sw 1.

Genus SPIZAETUS Vieill.

On the limits of this genus, see Swann (1945).

Spizaetus bellicosus (Daud.) Martial Eagle

Falco bellicosus Daudin, Traité . . . d'ornithologie, 2, 1800: 38. Great Namaqualand, between 28°S. and the Tropic.
Spizaëtus bellicosus; Swann, 1945: 105.

Polemaëtus bellicosus; Vincent, 1952: 14; McLachlan & Liversidge, 1957: 75; Praed & Grant, 1962: 159.
Polomaëtus bellicosus; C.B.C., 1963: 22.

Of all the larger birds of prey, this species has best held its own against relentless persecution and may still be seen almost anywhere on the Karoo, though virtually extinct in the Winter Rainfall area.

B, BW 1, BW 2, C 2, Cl 1, Cn, H, Lg, M, MB, N 1, N 3, N 4, O, **P**, **PA**, Pr, **S**, Sw 1, U, VW.

Spizaetus coronatus (L.) Crowned Eagle

Falco coronatus Linnaeus, Systema naturae, ed. 12, 1766: 124. Guinea.
Spizaëtus coronatus; Swann, 1945: 107.
Stephanoaëtus coronatus; Vincent, 1952: 14; McLachlan & Liversidge, 1957: 76; Praed & Grant, 1962: 160; C.B.C., 1963: 61.

A forest eagle of which there is a specimen from French Hoek in the South African Museum. May occur as a straggler in the south-east but there are no other definite records.

S.

Genus LOPHAETUS Kaup

[**Lophaetus occipitalis** (Daud.) Long-crested Eagle

Falco occipitalis Daudin, Traité . . . d'ornithologie, 2, 1800: 40. George District.
Lophaetus occipitalis; Swann, 1945: 125; Vincent, 1952: 14; McLachlan & Liversidge, 1957: 73.
Lophoaëtus occipitalis; Praed & Grant, 1962: 161.

Praed & Grant (1962) record it as 'throughout, except Cape Peninsula' but there appear to be no records from the western Cape, though it may occur in the Brak River area of Mossel Bay.]

Genus CIRCAETUS Vieill.

[**Circaetus cinereus** Vieill. Brown Snake-Eagle

Circaëtus cinereus Vieillot, Nouvelle dictionnaire d'histoire naturelle, 23, 1818: 445. Senegal; Swann, 1945: 140; Vincent, 1952: 14; McLachlan & Liversidge, 1957: 77; Praed & Grant, 1962: 164; C.B.C., 1963: 61.

May occur but no records.]

Circaetus gallicus pectoralis Smith Black-breasted Snake-Eagle

Circaëtus pectoralis A. Smith, S. Afr. Q.J., 1830: 109. No locality. (Twenty-four Rivers, Porterville, Cape Province); Swann, 1945: 138; Vincent, 1952: 14; Macdonald, 1957: 50; McLachlan & Liversidge, 1957: 77; Praed & Grant, 1962: 165; C.B.C., 1963: 22.

For reasons for regarding *pectoralis* as a race of *gallicus*, see White (1951). Widely distributed in both Karoo and Winter Rainfall areas but rare.

B, BW 1, **BW 2**, H, K, M, N 1, N 3, O, P, PA, **S**, VW, W.

Genus TERATHOPIUS Less.

Terathopius ecaudatus (Daud.) Bateleur

Falco ecaudatus Daudin, Traité . . . d'ornithologie, 2, 1800: 54. George District.

Terathopius ecaudatus; Swann, 1945: 170; Vincent, 1952: 15; Macdonald, 1957: 50; McLachlan & Liversidge, 1957: 79; Praed & Grant, 1962: 168; C.B.C., 1963: 61.

Widespread in the north and east in the past but now virtually exterminated in our area.

BW 2, O, S, U, VW.

Genus HALIAEETUS Savig.

Haliaeetus vocifer (Daud.) African Sea Eagle

Falco vocifer Daudin, Traité . . . d'ornithologie, 2, 1800: 65. Keurboom River, Cape Province.

Haliaeetus vocifer; Vincent, 1952: 15; C.B.C., 1963: 22.

Cuncuma vocifer vocifer; Swann, 1945: 190.

Haliaëtus vocifer; McLachlan & Liversidge, 1957: 78.

Cuncuma vocifer; Praed & Grant, 1962: 169.

Widely distributed and not uncommon on the larger bodies of water, especially in the south and south-west.

K, MB, N 2, N 4, O, P, Rv 1, **S**, Sw 1, T, U, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.						2	3	4	2			

Genus GYPAETUS Storr

Gypaetus barbatus meridionalis Keys. & Blas. Lammergeier

Gypaëtus meridionalis Keyserling & Blasius, Die Wirbelthiere Europa's, 1840: 28. South Africa (restricted to Sundays River, Cape Province).

Gypaëtus barbatus meridionalis; Swann, 1945: 8; Vincent, 1952: 15; McLachlan & Liversidge, 1957: 79; Praed & Grant, 1962: 171; C.B.C., 1963: 62.

Formerly widespread in mountainous country in the south and east of our area but now probably extinct.

BW 2, Cn, **S**, Sw 1, VW.

Genus BUTEO Lacép.

Treatment of species in this genus follows South African Ornithological Society, List Committee Report (1956).

Buteo buteo Buzzard

a. *Buteo buteo vulpinus* (Glog.)

Falco vulpinus Gloger, Das Abändern der Vögel durch Einflus des Klima's, 1833: 141. Africa (restricted to Sundays R., E. Cape, Stresemann, Annls Mus. r. Congo belge, N. Sér. 4to, Zool., 1, 1954: 81–82).

Buteo vulpinus vulpinus; Swann, 1930: 372; Vincent, 1952: 15.
Buteo buteo vulpinus; McLachlan & Liversidge, 1957: 81; C.B.C., 1963: 22.
Buteo vulpinus; Praed & Grant, 1962: 173.

Steppe Buzzards are common in the Winter Rainfall area in summer as non-breeding visitors from the Palaearctic; and widely, but more sparingly, distributed on the Karoo at the same season. Most of them probably belong to this subspecies.

H, Rb, S, U.

Racially indeterminate: B, BW 1, BW 2, C 2, Ce 1, Ce 2, Ce 3, Cl 1, Cn, D, F, K, L, Lg, M, MB, N 3, O, P, PA, Pr, R, Rv 1, Su 1, Sw 1, Sw 2, T, V, VW, Wo 1, Wo 3.

b. *Buteo buteo menetriesi* Bogd.
Buteo menetriesi Bogdanow, Trudy Obshch. Estest. Imp. Kazan. Univ., 8, 4, 1879: 45. Caucasus.
Buteo rufinus menetriesi; Swann, 1930: 381.
Buteo buteo menetriesi; Vincent, 1952: 15; McLachlan & Liversidge, 1957: 81; C.B.C., 1963: 22.
Buteo menetriesi; Praed & Grant, 1962: 173.

See above; definite records of this form are confined to the south-west.
S.

c. *Buteo buteo trizonatus* Rudebeck.
Buteo buteo trizonatus Rudebeck, South African animal life, 4, 1956: 400. Knysna; C.B.C., 1963: 23.
Buteo oreophilus; Swann, 1930: 376 (in part); Vincent, 1952: 15.
Buteo buteo oreophilus; McLachlan & Liversidge, 1957: 81.
Buteo trizonatus; Praed & Grant, 1962: 175.

Found breeding on the Cape Peninsula by P. Steyn and J. Brooks in 1960; and another nest investigated by G. J. Broekhuysen, F. Coly and the author in 1961.

S.

Buteo rufofuscus rufofuscus (Forst.) Jackal Buzzard

Falco rufofuscus Forster, in Levaillant's Naturgeschichte der afrikanischen Vögel, 1798: 59, pl. 16. South Africa (restricted to Cape Town, Winterbottom, Ostrich, 36, 1965: 91).
Buteo rofofuscus rufofuscus; Vincent, 1952: 15; McLachlan & Liversidge, 1957: 80; Praed & Grant, 1962: 176; C.B.C., 1963: 23.
Buteo rufofuscus; Swann, 1930: 383; Macdonald, 1957: 50.

Widely distributed and common near hills and mountains throughout the western Cape. In the south-west, birds strongly recalling the northern *B.r. augur* (Rüpp.) have been recorded but their status remains uncertain.

B, BW 1, BW 2, C 1, C 2, **Ce 1**, Ce 2, Ce 3, Cl 1, Cl 2, Cn, D, H, K, L, Lg, M, MB, N 1, N 2, **N 3**, N 4, O, P, PA, Pr, R, **Rb**, Rv 1, **S**, Su 1, **Sw 1**, Sw 2, V, VW, W, **Wo 1**, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1						2	2	5	1		
Karoo									1			

Genus ACCIPITER Briss

Accipiter nisus nisus (L.) European Sparrow-hawk

Falco nisus Linnaeus, Systema naturae, ed. 10, 1758: 92. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1903–23).

Accipiter nisus nisus; Swann, 1930: 273; Praed & Grant, 1962: 179.

A specimen from Swellendam in the South African Museum is the only record of this species from Africa south of Ethiopia and the Sudan.

Sw 1.

Accipiter minullus minullus (Daud.) Little Sparrow-hawk

Falco minullus Daudin, Traité . . . d'ornithologie, 2, 1800: 88. Gamtoos River, Cape Province.

Accipiter minullus minullus, Swann, 1930: 297; Vincent, 1952: 15.

Accipiter minullus; McLachlan & Liversidge, 1957: 84; Praed & Grant, 1962: 179.

There is a specimen from Swellendam in the South African Museum and probably found in thickly wooded country thence eastwards, but there are no actual records.

PA, **Sw 1.**

Accipiter rufiventris rufiventris Smith Red-breasted Sparrow-hawk

Accipiter rufiventris A. Smith, S. Afr. Q.J. 1830: 231. South Africa (restricted to Baviaans River, Cape Province).

Accipiter rufiventris rufiventris; Swann, 1930: 321; Vincent, 1952: 16; McLachlan & Liversidge, 1957: 81; Praed & Grant, 1962: 182; C.B.C., 1963: 23.

Widespread in wooded country in the Winter Rainfall area but nowhere very common. Sometimes comes out into much opener country when hunting and I have seen it attacking a Tawny Pipit *Anthus novaeseelandiae* on the Cape Town foreshore, and Cape Canaries *Serinus canicollis* in the Olifants River valley near Clanwilliam and near Riversdale, all in treeless places.

Cl 1, M, O, Rv 1, **S**, **Sw 1**, T.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										2	1	1

Accipiter melanoleucus Smith Black Sparrow-hawk

Accipiter melanoleucus Smith, S. Afr. Q.J., 1830: 229. Baviaans River, Cape Province.

Neornisus melanoleucus; Swann, 1930: 269.

Accipiter melanoleucus melanoleucus; Vincent, 1952: 16; McLachlan & Liversidge, 1957: 85; Praed & Grant, 1962: 183; C.B.C., 1963: 62.

The only records are a specimen from Nelspoort in the South African Museum and a skin obtained in the Cape Division by Andrew Smith.

BW 2, S.

Accipiter badius polyzonoides Smith Little Banded Goshawk

Accipiter polyzonoides A. Smith, Illustrations of the zoology of South Africa, Aves, 1858: pl. 2. N. of 26°S. Lat. (near Mafeking, Sclater, Systema avium ethiopicarum, 1, 1924: 70).

Astur polyzonoides; Swann, 1930: 200.

Accipiter badius polyzonoides; Vincent, 1952: 16; Macdonald, 1957: 50; McLachlan & Liversidge, 1957: 86; Praed & Grant, 1962: 184.

Recorded only from the north (Upington, Hopetown) and east (Oudtshoorn), these last perhaps an error for *A. minullus*.

H, O, U.

Accipiter tachiro tachiro (Daud.) African Goshawk

Falco tachiro Daudin, Traité . . . d'ornithologie, 2, 1800: 90. George.

Astur tachiro tachiro; Swann, 1930: 195.

Accipiter tachiro tachiro; Vincent, 1952: 16; McLachlan & Liversidge, 1957: 85; Praed & Grant, 1962: 185.

An uncommon forest hawk in the south, recorded from the Cape Peninsula, Mossel Bay and Swellendam. Elsewhere, known only from Nelspoort (Stark & Sclater).

BW 2, MB, **S**, **Sw 1**.

Genus MELIERAX Gray

Melierax musicus musicus (Daud.) Chanting Goshawk

Falco musicus Daudin, Traité . . . d'ornithologie, 2, 1800: 116. North of the Olifants River, Cape Province.

Melierax musicus; Vincent, 1952: 16; Macdonald, 1957: 51; McLachlan & Liversidge, 1957: 87.

Melierax musicus musicus; Swann, 1930: 165; Praed & Grant, 1962: 187; C.B.C., 1963: 23.

The common hawk of the Karoo, extending south to the Karoo country in the Breede River valley.

B, BW 1, BW 2, C 1, C 2, Ce 2, Ce 3, **Cn**, Ct, D, **H**, K, L, Lg, M, N 1,

N 2, N 3, N 4, O, P, PA, Pr, R, **Rb**, S, Su 2, Sw 1, Sw 2, **U**, V, VW, W, Wo 1, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo									2			

Melierax gabar gabar (Daub.) Gabar Goshawk

Falco gabar Daudin, Traité . . . d'ornithologie, 2, 1800: 87. Interior of South Africa (restricted to Zwart River, Graaff-Reinet, Grant & M.-Praed, Bull. Br. Orn. Club, 54, 1934: 111).

Melierax gabar gabar; Swann, 1930: 172; Vincent, 1952: 16; C.B.C., 1963: 62.

Melierax gabar; Macdonald, 1957: 51.

Micronisus gabar; McLachlan & Liversidge, 1957: 86; Praed & Grant, 1962: 186.

There are scattered records from the south (Olifants River, Calitzdorp, Oudtshoorn) and one from 20 miles east of Springbok and another from Upington. Status unknown.

Cl 1, Cl 2, Ct, N 3, O, PA, S, U.

Genus CIRCUS Lacép.

Circus maurus (Temm.) Black Harrier

Falco maurus Temminck, Nouveau recueil de planches coloriées d'oiseaux, 78, 1828: pl. 461. Cape of Good Hope.

Circus maurus; Swann, 1930: 138; Vincent, 1952: 16; McLachlan & Liversidge, 1957: 88; Praed & Grant, 1962: 190; C.B.C., 1963: 23.

Uncommon, but still widely distributed, tolerating much drier conditions than *C. ranivorus*.

BW 2, C 1, C 2, Cl 1, F, Lg, MB, N 1, P, R, **Rv 1**, **S**, Sw 1, T, V, VW, W, Wo 1.

Circus pygargus (L.) Montagu's Harrier

Falco Pygargus Linnaeus, Systema naturae, ed. 10, 1758: 91. Europe (restricted to England).

Circus pygargus; Swann, 1930: 111; Vincent, 1952: 16; McLachlan & Liversidge, 1957: 88; Praed & Grant, 1962: 191; C.B.C., 1963: 62.

A rare, non-breeding visitor from the Palaearctic, occasionally recorded from the south (Cape Flats, Swellendam) and north-east (Kraankuil, Philipstown).

H, P, **S**, **Sw 1**, U.

Circus macrourus (Gmel.) Pallid Harrier

Accipiter macrourus Gmelin, Novi Comment. Acad. Sci. imp. Petrop (St. Petersburg), 15, 1771: 439, pls. 8, 9. Veronezh, Russia.

Circus macrourus; Swann, 1930: 109; Vincent, 1952: 16; McLachlan & Liversidge, 1957: 88; Praed & Grant, 1962: 191; C.B.C., 1963: 62.

A rare, non-breeding visitor from the Palaearctic to the east and south of our area; but more frequently recorded than the preceding.

BW 2, N 1, P, **S**, **U**, VW, Wo 3.

[**Circus aeruginosus aeruginosus** (L.) European Marsh Harrier

Falco aeruginosus Linnaeus, Systema naturae, ed. 10, 1758: 91. Sweden.

Circus aeruginosus aeruginosus; Vincent, 1952: 16; Praed & Grant, 1962: 192.

May occur as a non-breeding visitor from the Palaearctic.]

Circus ranivorus ranivorus (Daud.) African Marsh Harrier

Falco ranivorus Daudin, Traité . . . d'ornithologie, 2, 1800: 170. Duiwenhok River, Swellendam (Winterbottom, Ostrich, 36, 1965: 91).

Circus ranivorus ranivorus; Swann, 1930: 128; Vincent, 1952: 16; McLachlan & Liversidge, 1957: 88; C.B.C., 1963: 23.

Circus aeruginosus ranivorus; Praed & Grant, 1962: 193.

I do not agree with the view which regards *ranivorus* as conspecific with *aeruginosus* (L.).

Requires swamps for breeding. Where these are available, resident; and much the commonest of our Harriers, especially in the south.

BW 2, Ce 2, Cl 1, Cn, D, M, MB, N 1, R, Rb, Rv 1, **S**, Sw 1, T, U, V, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								4	16	10	2	2

Genus POLYBOROIDES Smith

Polyboroides radiatus typus Smith Banded Harrier-Hawk

Polyboroides typus A. Smith, S. Afr. comml Advert., 13 May 1829. Eastern Cape.

Gymnogenys typicus typicus; Swann, 1930: 97.

Polyboroides typus typus; Vincent, 1952: 17; McLachlan & Liversidge, 1957: 89; C.B.C., 1963: 23.

Polyboroides radiatus typus; Praed & Grant, 1962: 194.

In the Winter Rainfall area, probably widely distributed in wooded valleys. Elsewhere recorded only from the Orange River near Upington.

C 2, Cl 1, Ct, L, M, O, PA, **S**, Sw 1, **U**, V.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo									1			

Family **Falconidae**

Genus FALCO L.

Falco peregrinus minor Bp. Peregrine

Falco minor Bonaparte, Revue Mag. Zool., 1850: 484. Cape of Good Hope.
Falco peregrinus perconfusus; Swann, 1945: 390; Vincent, 1952: 17; McLachlan & Liversidge, 1957: 61; C.B.C., 1963: 24.
Falco japonensis perconfusus; Praed & Grant, 1962: 132.

The decision of the International Commission on Zoological Nomenclature that Tunstall is not a binomial author has brought complete confusion to the specific name of this species, as well as upsetting a number of other established names. The decision is ignored in this list.

Sparingly distributed in mountainous country, though there are few records from the Karoo.

It is possible that, as Praed & Grant (1962) state, *F.p. peregrinus* Tunstall may occur as a non-breeding, summer visitor from the Palaearctic; but there are no records of it.

BW 2, C 1, C 2, L, N 2, N 3, P, Rb, Rv 1, **S**, Sw 1, U, V, Wo 2.

Falco biarmicus biarmicus Temm. Lanner Falcon

Falco biarmicus Temminck, Nouveau recueil de planches coloriées d'oiseaux, 55, 1825: pl. 324. Caffraria & Cape of Good Hope (restricted to Peddie District, Cape Province).
Falco biarmicus biarmicus; Swann, 1945: 400; Vincent, 1952: 17; Macdonald, 1957: 48; McLachlan & Liversidge, 1957: 62; Praed & Grant, 1962: 133; C.B.C., 1963: 24.

Much commoner and more generally distributed than the Peregrine and in places (e.g. between Aughrabies and Port Nolloth and round Gamoep, Little Namaqualand) common.

B, **BW 2**, C 1, C 2, Cn, D, **H**, K, N 1, N 3, N 4, O, P, R, **S**, Su 2, Sw 1, T, U, V, VW, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo								1				

Falco subbuteo L. Hobby Falcon

a. *Falco subbuteo subbuteo* L.

Falco Subbuteo Linnaeus, Systema naturae, ed. 10, 1758: 89. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1903: 23).
lco subbuteo subbuteo; Swann, 1945: 339; Vincent, 1952: 17; McLachlan & Liversidge, 1957: 62; Praed & Grant, 1962: 136; C.B.C., 1963: 62.

A non-breeding visitor from the Palaearctic, recorded from Nelspoort by Stark & Sclater.

BW 2.

b. *Falco subbuteo cuvierii* Smith

Falco cuvierii A. Smith, S. Afr. Q.J., 1830: 392. Kei River, Cape Province. Swann, 1945: 357; Vincent, 1952: 17; McLachlan & Liversidge, 1957: 62; Praed & Grant, 1962: 136; C.B.C., 1963: 62.

For reasons for regarding *cuvieri* as a race of *subbuteo*, see White (1951*a*).

A rare species, recorded from the south-west and north-east. Status unknown but presumably resident.

BW 2, H, **S**, Sw 1.

Falco amurensis Radde Red-footed Falcon

Falco vespertinus (var.) *amurensis* Radde, Reisen im Süden von Ost-Sibirien, 2, 1863: 102, pl. 1, fig. 2. Blago-vestschensk, middle Amur River.

Falco amurensis; Swann, 1945: 377; McLachlan & Liversidge, 1957: 63; Praed & Grant, 1962: 138.

Erythropus amurensis; Vincent, 1952: 17.

A non-breeding visitor from the Palaearctic, recorded only from the Philipstown District. Praed & Grant (1962) suggest that the western *F. vespertinus* L. also occurs, but there are no records of it.

P.

Falco chicquera horsbrughi Gunn. & Rbts. Red-necked Kestrel

Falco horsbrughi Gunning & Roberts, Ann. Transv. Mus., 3, 1911: 110. Pretoria.

Tinnunculus horsbrughi; Vincent, 1952: 17.

Tinnunculus ruficollis daviesi; Vincent, 1952: 17.

Falco chicquera horsbrughi; Swann, 1945: 365; McLachlan & Liversidge, 1957: 63; Praed & Grant, 1962: 139.

For reasons for the use of this name, see South African Ornithological Society, List Committee Report (1959).

A Kalahari bird, recorded only from the north-east.

BW 2, D, **H**, K, N 4, **U**.

Falco tinnunculus rupicolus Daud. Rock Kestrel

Falco rupicolus Daudin Traité . . . d'ornithologie, 2, 1800: 135. Cape of Good Hope.

Cerchneis tinnunculus rupicola; Swann, 1945: 442.

Cerchneis rupicolus; Vincent, 1952: 18.

Falco tinnunculus rupicolus; Macdonald, 1957: 48; Praed & Grant, 1962: 140; C.B.C., 1963: 24.

Falco tinnunculus rupicola; McLachlan & Liversidge, 1957: 65.

Much the commonest and most widely distributed of our falcons, found in open country throughout the area.

All Districts: **Cl 1, M, N 1, PA, S, U, V.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1	4	4		
Karoo									2	1		

Falco rupicoloides rupicoloides Smith Greater Kestrel

Falco rupicoloides A. Smith, S. Afr. Q.J., 1830: 238. Groene River, Little Namaqualand.

Cerchneis rupicoloides rupicoloides; Swann, 1945: 447; Vincent, 1952: 18.

Falco rupicoloides rupicoloides; Macdonald, 1957: 48; McLachlan & Liversidge, 1957: 65; Praed & Grant, 1962: 141; C.B.C., 1963: 24.

Not uncommon, but local, on the Karoo; a straggler to the Winter Rainfall area.

B, BW 1, BW 2, C 1, C 2, Ce 3, Cn, D, H, K, Lg, N 1, N 3, N 4, P, PA, Pr, R, S, U, V, VW, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo									1	1		

Falco naumanni naumanni Fleisch. Lesser Kestrel

Falco naumanni Fleischer, in Laurop & Fischer's Sylvan for 1817–18, 1818: 174. Sicily.

Cerchneis naumanni naumanni; Swann, 1945: 455; Vincent, 1952: 18.

Falco naumanni naumanni; McLachlan & Liversidge, 1957: 68; Praed & Grant, 1962: 142; C.B.C., 1963: 24.

A non-breeding visitor from the Palaearctic to the east and south of the area, occurring in large flocks which assemble to roost every evening in places used year after year.

C 2, Ce 1, Ce 2, Cl 1, H, MB, O, **P**, Rb, Rv 1, **S**, **Sw 1**, T, VW, W.

Genus POLIOHIERAX Kaup

Poliohierax semitorquatus semitorquatus (Smith) Pygmy Falcon

Falco semitorquatus A. Smith, Report of the expedition for exploring central Africa, 1836: 44. Old Latakoo = Kuruman.

Polihierax semitorquatus; Swann, 1945: 328.

Polihierax semitorquatus semitorquatus; Vincent, 1952: 18; Macdonald, 1957: 49; McLachlan & Liversidge, 1957: 68.

Poliohierax semitorquatus semitorquatus; Praed & Grant, 1962: 145.

A spill-over from the Kalahari, recorded only from the neighbourhood of the Orange River. Since it is normally dependent on the Social Weaver

Philetarius socius for nest-sites, its distribution is limited by that of this bird (map 14).

Pr, U.

Family **Pandionidae**

Genus PANDION Sewig.

Pandion haliaetus haliaetus (L.) Osprey

Falco haliaëtus Linnaeus, Systema naturae, ed. 10, 1758: 91. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1903: 23).

Pandion haliaetus haliaetus; Swann, 1945: 478.

Pandion haliaaetus haliaaetus; Vincent, 1952: 17; C.B.C., 1963: 24.

Pandion haliaëtus haliaëtus; McLachlan & Liversidge, 1957: 92: Praed & Grant, 1962: 195.

Status uncertain. Believed to breed on the Berg River, but nowhere common; and recorded outside the extreme south-west only from Perdegrasvlei, Fraserburg District, and from the Orange River.

F, MB, Pr, S, Su 1.

Family **Sagittariidae**

Genus SAGITTARIUS Herm.

Sagittarius serpentarius (Miller) Secretary-bird

Falco serpentarius J. F. Miller, Icones animalium et plantarum, 1779: pl. 28. Cape of Good Hope.

Sagittarius serpentarius serpentarius; Swann, 1930: 63.

Sagittarius serpentarius; Vincent, 1952: 12; McLachlan & Liversidge, 1957: 54; Praed & Grant, 1962: 123; C.B.C., 1963: 27.

Widely but thinly distributed in both Karoo and Winter Rainfall areas; and probably commoner in the latter than the former.

BW 2, C 1, Ce 2, Ce 3, Cl 1, Cn, H, Lg, MB, N 1, N 3, N 4, O, P, PA. R, Rv 1, S, Sw 1, Sw 2, V, VW, W.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1	6			
Karoo										1		

Family **Phasianidae**

Genus FRANCOLINUS Stephens

I have followed Hall (1963) for the nomenclature of the francolins.

Francolinus africanus africanus Steph. Grey-winged Francolin

Francolinus africanus Stephens, in Shaw's General zoology, 11, 1819: 323. Hottentot country (restricted to King William's Town District, Vincent, Ostrich, 20, 1949: 149).

Francolinus africanus africanus; Vincent, 1952: 20; McLachlan & Liversidge, 1957: 94; C.B.C., 1963: 24.

Francolinus afer; Praed & Grant, 1962: 205.

Widely distributed in both the Winter Rainfall area and the Karoo, though absent from the more arid parts of the latter. Not confined to mountainous country, as sometimes thought.

BW 1, BW 2, C 2, Ce 1, **Ce 2**, Ce 3, Cl 1, D, L, **Lg**, **M**, **MB**, N 3, O, **P**, PA, R, Rb, Rv 1, **S**, Su 2, **Sw 1**, Sw 2, T, V, VW, W, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.							1	2	1	3	1	1
Karoo											1	2

Francolinus levaillantii levaillantii (Valenc.) Red-winged Francolin

Perdix Levaillantii Valenciennes, Dictionnaire des sciences naturelles, 38, 1825: 441. Cape of Good Hope (restricted to Swellendam, Praed & Grant, 1962: 208).

Francolinus levaillantii levaillantii; Vincent, 1952: 20; McLachlan & Liversidge, 1957: 95; Praed & Grant, 1962: 208; C.B.C., 1963: 25.

Only on the better watered mountains and there uncommon.

M, MB, O, P, Rv 1, S, Sw 1.

Francolinus levaillantoides levaillantoides (Smith) Orange River Francolin

Perdix levaillantoides A. Smith, Report of the expedition for exploring central Africa, 1836: 55. Upper Orange River.

Francolinus gariepensis gariepensis; Vincent, 1952: 20.

Francolinus levaillantoides; Macdonald, 1957: 52.

Francolinus levaillantoides levaillantoides; McLachlan & Liversidge, 1957: 95; Praed & Grant, 1962: 210.

A northern species which penetrates our area only in the north from Philipstown to Alexander Bay.

D, H, N 1, N 4, P.

Francolinus capensis (Gmel.) Cape Francolin

Tetrao capensis Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 759. Cape of Good Hope.

Francolinus capensis; Vincent, 1952: 20, McLachlan & Liversidge, 1957: 96; Praed & Grant, 1962: 214; C.B.C., 1963: 25.

A species of the macchia vegetation, where it is common. Isolated records from Assenkjer (Richtersveld), Upington and Karee River (Fraserburg) may be errors.

C 2, Ce 1, Ce 2, Ce 3, Cl 1, Cl 2, F, L, M, MB, N 2, O, PA, Rb, **Rv 1**, **S**, Su 1, Su 2, Sw 1, Sw 2, T, V, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	3	2						1	7	6	3	3
Karoo										1	1	

Francolinus afer notatus (Roberts) Red-throated Francolin

Pternistis castaneiventris notatus Roberts, Ann. Transv. Mus., 10, 1924: 121. Knysna.

Pternistis afer notatus; Vincent, 1952: 21; McLachlan & Liversidge, 1957: 98; Praed & Grant, 1962: 224; C.B.C., 1963: 62.

An eastern species, penetrating the Winter Rainfall area as far as Swellendam and, perhaps, to Montagu and French Hoek, whence there are unconfirmed sight records; but nowhere common.

M, MB, Rv 1, Sw 1.

Genus COTURNIX Bonnaterre

Coturnix coturnix africana Temm. & Schleg. Quail

Coturnix vulgaris africana Temminck & Schlegel in Siebold, Fauna japonica, Aves, 1869: 103. South Africa (restricted to Cape Province, Grant & M.-Praed, Bull. Br. Orn. Club, 35, 1934: 68).

Coturnix coturnix africana; Vincent, 1952: 22; Macdonald, 1957: 56; McLachlan & Liversidge, 1957: 99; Praed & Grant, 1962: 227; C.B.C., 1963: 25.

There is a possibility that the European race *C.c. coturnix* (L.) may occur a migrant from the Palaearctic in the extreme north-east or east.

A breeding summer visitor, regular in the Winter Rainfall area but highly dependent on adequate rains in the Karoo.

BW 2, C 1, C 2, Ce 2, Cl 1, Cl 2, Cn, D, Lg, M, MB, N 3, O, P, R, Rb, Rv 1, **S**, Su 2, Sw 1, V, W, **Wo 1**, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									3	5	3	2
Karoo								1				

Coturnix delegorguei delegorguei Deleg. Harlequin Quail

Coturnix delegorguei Delegorgue, Voyage dans l'Afrique australe, 2, 1847: 615. Oury = Upper Limpopo River.

Coturnix delegorguei delegorguei; Vincent, 1952: 22; McLachlan & Liversidge, 1957: 99; Praed & Grant, 1962: 228; C.B.C., 1963: 25.

A rare straggler, recorded only from Mamre, Durbanville and Swellendam.

S, Sw 1.

Genus NUMIDA L.

Numida meleagris coronata Gurn. Crowned Guineafowl

Numida coronata Gurney, Ibis, 1868: 253. South Africa (restricted to Uitenhage, Cape Province, M.–Praed & Grant, Ibis, 1936: 371).
Numida mitrata coronata; Vincent, 1952: 18.
Numida mitrata; Macdonald, 1957: 57.
Numida meleagris coronata; McLachlan & Liversidge, 1957: 101.
Numida meleagris mitrata; Praed & Grant, 1962: 230.
Numida mitrata mitrata; C.B.C., 1963: 24.

Not indigenous to the western Cape except, perhaps, along the Orange River; but feral and introduced birds are now generally distributed and common in the Winter Rainfall area and parts of the Karoo.

BW 2, Ce 1, Cl 1, H, L, M, MB, O, P, PA, Pr, Rb, **S**, Sw 1, Sw 2, T, U, V, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	2							1	5	11	9	8

Family **Gruidae**

Genus BALAEARICA Briss.

[**Balaearica pavonina regulorum** (Benn.) Crowned Crane

Anthropoides regulorum Bennett, Proc. zool. Soc. Lond., 1833: 118. South Africa (restricted to eastern Cape Province, Grant & M.-Praed, Bull. Br. Orn. Club, 55, 1934: 68).
Balaearica regulorum regulorum; Vincent, 1952: 22; McLachlan & Liversidge, 1957: 113; Praed & Grant, 1962: 258.
May occur as a straggler in the east.]

Genus ANTHROPOIDES Vieill.

Anthropoides paradisea (Licht.) Stanley Crane

Ardea paradisea Lichtenstein, Catalogus rerum naturalium rarissimarum Hamburgi, 1793: 28. Inner South Africa.
Tetrapteryx paradisea; Vincent, 1952: 22; McLachlan & Liversidge, 1957: 114, Praed & Grant, 1962: 259; C.B.C., 1963: 25.

An eastern species, occasionally reaching as far west as Vanwyskvlei in the north and Worcester in the south but common only in the Philipstown–De Aar–Richmond area of the north and from Bredasdorp to Mossel Bay in the south.

B, BW 2, Cn, D, M, MB, O, P, R, S, Sw 1, VW, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										2	1	1
Karoo	1	1	1							1		

Genus GRUS L.

For reasons for the use of this name, see White (1952*b*).

Grus carunculatus (Gmel.) Wattled Crane

Ardea carunculata Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 643. Africa (= Cape of Good Hope).

Bugeranus carunculatus; Vincent, 1952: 22; McLachlan & Liversidge, 1957: 113; Praed & Grant, 1962: 260; C.B.C., 1963: 25.

Known only from two skins in the South African Museum from Somerset West and Caledon and a record from Worcester. A rare straggler from further east.

S, Wo 1.

Family **Otididae**

Genus OTIS L.

For limits of this genus, see White (1952*b*).

Otis kori kori Burch. Kori Bustard

Otis Kori Burchell, Travels in the interior of southern Africa, 1, 1822: 393, 402. Confluence of Vaal and Orange Rivers.

Ardeotis kori; Vincent, 1952: 22.

Ardeotis kori kori; McLachlan, 1957: 115; Praed & Grant, 1962: 262; C.B.C., 1963: 25.

Choriotis kori; Macdonald, 1957: 58.

Very widely distributed but nowhere numerous and subject to novements not yet understood. In Namaqualand, said to be chiefly a winter visitor.

BW 2, C 1, D, H, K, N 1, N 2, N 3, N 4, O, P, Pr, **S**, Sw 1, U, V, W, Wo 1.

Otis ludwigii Rüpp. Ludwig's Bustard

Otis ludwigii Rüppell, Mus. senckenb., 2, 1837: 223, pl. 14. South Africa (restricted to Graaff-Reinet).

Neotis ludwigii; Vincent, 1952: 22; Macdonald, 1957: 58; McLachlan & Liversidge, 1957: 115; Praed & Grant, 1962: 264; C.B.C., 1963: 62.

Owing to the difficulty of distinguishing this bustard from *O. denhami* in the field, reliable records are relatively few, but it occurs in parts of the eastern Karoo; and there is one record from the Cape Flats, where, however, it must be an occasional straggler only.

BW 2, Cn, D, PA, **S**, U, VW.

Otis denhami stanleyi Gray Stanley Bustard

Otis stanleyi Gray, Zool. Misc., 1831: 12. Cape of Good Hope.

Neotis denhami stanleyi; Vincent, 1952: 23; McLachlan & Liversidge, 1957: 116; Praed & Grant, 1962: 265; C.B.C., 1963: 25.

Widely, if sparingly distributed, both in the Winter Rainfall area and on the Karoo; and subject to movements not yet understood.

B, BW 2, C 1, C 2, Ce 1, Cl 1, Cn, D, F, H, K, Lg, MB, N 3, N 4, O, P, PA, Pr, R, Rb, **S**, Sw 1, U, VW, W.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										1		

Genus EUPODOTIS Less.

On the limits of this genus, see White (1952*b*). I have, however, kept *Afrotis* separate, as it is, in my opinion, sufficiently distinct to warrant this.

Eupodotis vigorsii (Smith) Karoo Korhaan

This species has been reviewed by Hall (1954) and Macdonald (1957), whose findings have been followed.

a. *Eupodotis vigorsii vigorsii* (Smith)

Otis vigorsii A. Smith, Proc. zool. Soc. Lond. for 1830, 1831: 11. South Africa (restricted to Beaufort West, Hall, Bull. Br. Orn. Club, 74, 1954: 90).

Eupodotis vigorsii vigorsii; Vincent, 1952: 23; McLachlan & Liversidge, 1957: 116; C.B.C., 1963: 26.

Eupodotis vigorsii karroensis; Vincent, 1952: 23.

Heterotetrax vigorsii vigorsii; Macdonald, 1957: 62; Praed & Grant, 1962: 266.

Virtually absent from the Winter Rainfall area west of the Hottentots-Holland Mountains, but common in open country elsewhere except where replaced by the next form.

B, BW 1, **BW 2**, C 1, C 2, Cl 1, D, F, Lg, MB, O, **P**, PA, R, S, Su 1, Su 2, Sw 1, V, VW, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo						1						1

b. *Eupodotis vigorsii namaqua* (Roberts)

Heterotetrax ruppellii namaqua Roberts, Ann. Transv. Mus., 15, 1932: 24. Gibeon, S.W.A.

Eupodotis vigorsii namaqua; Vincent, 1952: 23.

Eupodotis vigorsii orangensis; Vincent, 1952: 23; McLachlan & Liversidge, 1957: 116.

Heterotetrax vigorsii namaqua; Macdonald, 1957: 62; Praed & Grant, 1962: 267.

Replaces the preceding in the north and north-west.

Cn, H, K, N 4, Pr, U, W.

Eupodotis caerulescens (Vieill.) Blue Korhaan

Otis Caerulescens Vieillot, Encyclopédie méthodique . . . Tableau . . . , 1, 1820: 334. Kaffraria = Eastern Cape.

Eupodotis caerulescens; Vincent, 1952: 23; McLachlan & Liversidge, 1957: 117; Praed & Grant, 1962: 269.

A grassveld species which, apart from a perhaps erroneous Stark & Sclater record from Riversdale, is known only from the north-east, reaching its south-western limit, as a straggler, near Beaufort West.

BW 2, D, H, **P**, R, Rv 1.

[**Eupodotis ruficrista** (Smith) Red-crested Korhaan

Otis ruficrista A. Smith, Report of the expedition for exploring central Africa, 1836: 56. Near Latakoo, Botswana.

Lophotis ruficrista; Vincent, 1952: 23; Macdonald, 1957: 63.

Lophotis ruficrista ruficrista; McLachlan & Liversidge, 1957: 118; Praed & Grant, 1962: 270.

May occur in the north-east as a straggler from further north.]

Eupodotis melanogaster notophila (Oberh.) Black-bellied Bustard

Lissotis melanogaster notophila Oberholser, Proc. U.S. natn Mus., 28, 1905: 836. Durban; Vincent, 1952: 23; Praed & Grant, 1962: 272; C.B.C., 1963: 26.

Lissotis melanogaster; McLachlan & Liversidge, 1957: 119.

Recorded from Bredasdorp as a straggler from further east.

S.

Genus AFROTIS Gray

Afrotis afra (Gmel.) Black Korhaan

a. *Afrotis afra afra* (Gmel.)

Otis afra Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 724. Ethiopia (= Cape of Good Hope).

Afrotis afra afra; Vincent, 1952: 24; McLachlan & Liversidge, 1957: 119; Praed & Grant, 1962: 273; C.B.C., 1963: 26.

Common in the Winter Rainfall area and north along the west coast to Little Namaqualand; more sparingly distributed on the Lower Karoo.

BW 2, C 2, Ce 1, Ce 2, **Cl 1**, Cl 2, L, Lg, MB, N 1, N 2, N 3, O, PA, Rb, Rv 1, Rv 2, **S**, Su 2, Sw 1, T, V, Wo 1, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								2	12	1		

b. *Afrotis afra afraoides* (Smith)

Otis Afraoides A. Smith, Proc. zool. Soc. Lond, for 1830, 1831: 11. Flats near the Orange River.

Afrotis afra afraoides; Vincent, 1952: 24; Macdonald, 1957: 63; McLachlan & Liversidge, 1957: 119; Praed & Grant, 1962: 273.

Replaces the preceding in the north; common in the north-east but not recorded from wide areas between Sutherland and the Orange River.

B, Cn, D, H, K, N 4, **P**, Pr, R, U, VW.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo	1	1	1	1					1			1

Family **Heliornithidae**

Genus PODICA Less.

Podica senegalensis petersii Hartl. Finfoot

Podica Petersii Hartlaub, Abh. Geb. Naturw., Hamburg, 2, (2), 1852: 62. Mozambique.

Podica senegalensis petersi; Vincent, 1952: 26; McLachlan & Liversidge, 1957: 112; Praed & Grant, 1962: 256; C.B.C., 1963: 62.

Recorded from near Cape Town by Andrew Smith. No subsequent records but may well occur on wooded rivers in the east of the area.

S.

Family **Rallidae**

Genus RALLUS L.

Rallus caerulescens Gmel. Cape Rail

Rallus caerulescens Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, 2, 1789: 716. Cape of Good Hope; Vincent, 1952: 25; McLachlan & Liversidge, 1957: 103; Praed & Grant, 1962: 239; C.B.C., 1963: 26.

Owing to its skulking habits, there are few records and those almost all from the Winter Rainfall area; but that it does occur on the Karoo too is proved by records from Nelspoort and Oudtshoorn. A swamp-dweller, probably resident where it occurs.

BW 2, Cl 1, O, **S**, Sw 1.

Genus CREX Bechst.

Crex crex (L.) Corncrake

Rallux Crex Linnaeus, Systema naturae, ed. 10, 1758: 153. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1903: 23).

Crex crex; Vincent, 1952: 25; McLachlan & Liversidge, 1957: 103; Praed & Grant, 1962: 240; C.B.C., 1963: 63.

A Palaearctic migrant, known only from a single specimen in the South African Museum from the Cape Flats.

S.

Genus LIMNOCORAX Peters

Limnocorax flavirostra (Swains.) Black Crake

Gallinula flavirostra Swainson, Birds of western Africa, 2, 1837: 244, pl. 28. Senegal.

Limnocorax flavirostra; Vincent, 1952: 25; McLachlan & Liversidge, 1957: 105; Praed & Grant, 1962: 241; C.B.C., 1963: 27.

A skulking inhabitant of reed-beds, recorded only from the Winter Rainfall area and Little Karoo.

Cl 1, M, MB, O, Rb, Rv 1, **S**, Sw 1, Wo 1, **Wo 2.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.						1			2	2	3	2

Genus PORZANA Vieill.

Porzana pusilla obscura Neum. Baillon's Crake

Porzana obscura Neumann, Orn. Mber., 1897: 191. Kibaya, Tanganyika.

Porzana pusilla obscura; Vincent, 1952: 25; Macdonald, 1957: 57; McLachlan & Liversidge, 1957: 105; Praed & Grant, 1962: 244; C.B.C., 1963: 27.

Another skulking inhabitant of swamps, recorded only from the Winter Rainfall area and the Orange River mouth but probably much more widely and generally distributed than the records indicate.

N 1, **S**, Sw 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									1		1	

Genus SAROTHRURA Heine

Sarothrura rufa rufa (Vieill). Red-chested Flufftail

Rallus rufus Vieillot, Nouvelle dictionnaire d'histoire naturelle, 28, 1819: 564. Africa (restricted to Cape Province, Grant & M.-Praed, Bull. Br. Orn. Club, 55, 1934: 69).

Sarothrura rufa rufa; Vincent, 1952: 25; C.B.C., 1963: 27.

Sarothrura rufa; McLachlan & Liversidge, 1957: 108; Praed & Grant, 1962: 248.

A secretive swamp-dweller, recorded only from the extreme south-west but probably general in such terrain in the Winter Rainfall area.

S.

Sarothrura affinis affinis (Smith) Striped Flufftail

Crex affinis A. Smith, S. Afr. comml Advert., 3, 1828: 144. Cape Colony.

Sarothrura lineata lineata; Vincent, 1952: 25.

Sarothrura affinis affinis; McLachlan & Liversidge, 1957: 109; Praed & Grant, 1962: 244; C.B.C., 1963: 63.

For reasons for the use of this name instead of *lineata* Swainson, see South African Ornithological Society, List Committee Report (1956).

A skulking, marsh-haunting species, recorded only from Swellendam.

Sw 1.

Genus PORPHYRIO Briss.

Porphyrio porphyrio madagascariensis (Lath.) Purple Gallinule

Gallinula madagascariensis Latham, Index ornithologicus, Suppl., 1801: 68. Madagascar.

Porphyrio porphyrio madagascariensis; Vincent, 1952: 26, McLachlan & Liversidge, 1957: 110; C.B.C., 1963: 27.

Porphyrio alba madagascariensis; Praed & Grant, 1962: 251.

Not uncommon in reed-beds in the south-west and also recorded from Oudtshoorn & Philipstown.

Cl 1, MB, O, P, **S**, Sw 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								3	6	4	6	2

[**Porphyrio alleni** Thomson Lesser Gallinule

Porphyrio alleni Thomson, Ann. Mag. nat. Hist., 10, 1842: 204. Folda, Niger River; Vincent, 1952: 26; McLachlan & Liversidge, 1957: 110; Praed & Grant, 1962: 252; C.B.C., 1963: 63.

The Dassen Island specimen referred to in *Check list of the birds of the south western Cape*, 1963, and another, similarly labelled, from Touws River in the South African Museum have both proved, on re-examination, to be examples of the next species; and there is no authentic record of the Lesser Gallinule from the western Cape.]

Porphyrio martinica (L.) American Gallinule

Fulica martinica Linnaeus, Systema naturae, ed. 12, 1, 1766: 259. Martinique, West Indies.

Porphyrio martinica; C.B.C., 1963: 27.

Known only from seven examples from the west (Rowan & Winterbottom, 1963; Winterbottom, 1966*b*). As it occurs annually as a windblown straggler on Tristan da Cunha, it is probable that one or two reach South Africa every year.

S, Wo 3.

Genus GALLINULA Briss.

Gallinula chloropus meridionalis (Brehm) Moorhen

Stagnicola meridionalis Brehm, Die völlstandige Vogelfang, 1855: 331. South Africa.

Gallinula chloropus meridionalis; Vincent, 1952: 26; McLachlan & Liversidge, 1957: 111; Praed & Grant, 1962: 253; C.B.C., 1963: 27.

Widely distributed, even on the Karoo, where there are reed-beds available.

Common in such places in the Winter Rainfall area, resident and breeding.

BW 2, C 2, Ce 2, Cl 1, F, L, M, MB, N 1, **N 4**, O, P, PA, Rb, Rv 1, **S**, Su 2, Sw 1, Sw 2, T, **U**, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.						1		5	10	21	8	1

[**Gallinula nesiotis comeri** (Allen) Gough Island Coot

Porphyriornis comeri Allen, Bull. Am. Mus. nat. Hist., 4, 1892: 57. Gough Island.

Gallinula comeri; C.B.C., 1963: 63.

On the systematic position of this bird, see Voous (1961) and Eber (1961).

A specimen in the South African Museum from the Public Gardens, Cape Town, May 1893, can only have been an escape (Winterbottom, 1962*f*).]

Gallinula angulata angulata Sund. Lesser Moorhen

Gallinula angulata Sundevall, Öfvers. K. VetenskAkad. Förh. for 1850, 1851: 110. Lower Kaffraria (Umlazi River, Natal); McLachlan & Liversidge, 1957: 111; Praed & Grant, 1962: 254.

Gallinula angulata angulata; Vincent, 1952: 26; C.B.C., 1963: 63.

Recorded as rare in the Oudtshoorn area; and there is a specimen from Swellendam in the South African Museum.

O, **Sw 1.**

Genus FULICA L.

Fulica cristata Gmel. Red-knobbed Coot

Fulica cristata Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 704. Madagascar; Vincent, 1952: 26; Macdonald, 1957: 58; McLachlan & Liversidge, 1957: 111; Praed & Grant, 1962: 254; C.B.C., 1963: 28.

Abundant wherever there is open water. Evidently moves long distances, however, for an adult ringed at Barberspan, in the western Transvaal was recovered at Voëlvlei, Gouda, in the south-west Cape nine months later—a distance of nearly 700 miles; and another from the same place at Rondevlei Bird Sanctuary two years after ringing (McLachlan, 1964).

B, BW 2, C 1, C 2, Ce 1, Ce 2, Ce 3, Cl 1, Cn, Ct, D, F, H, L, Lg, M, MB, N 1, O, P, PA, R, Rb, Rv 1, **S**, Su 1, Su 2, Sw 1, Sw 2, T, **U**, V, VW, W, Wo 1, Wo 2, **Wo 3.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	12			2			17	167	172	132	34	51

Family **Turnicidae**

Genus TURNIX Bonnaterre

[**Turnix sylvatica lepurana** (Smith) Kurrichane Button-Quail

Ortygis Lepurana A. Smith, Report of the expedition for exploring central Africa, 1836: 55. North of Kurrichane.

Turnix sylvaticus lepurana; Vincent, 1952: 34.

Turnix sylvatica lepurana; McLachlan & Liversidge, 1957: 102; Praed & Grant, 1962: 368.

May occur as a straggler in the extreme north-east.]

Turnix hottentotta hottentotta Temm. Hottentot Button-Quail

Turnix hottentottus Temminck, Histoire naturelle générale des pigeons et des gallinacés, 3, 1815: 636, 757. Cape of Good Hope.

Turnix hottentotta; Vincent, 1952: 34; Praed & Grant, 1962: 370.

Turnix hottentotta hottentotta; McLachlan & Liversidge, 1957: 102; C.B.C., 1963: 36.

Widely distributed but rare in the Winter Rainfall area; one Karoo record.

BW 2, O, **S**, Sw 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										1		1

Family **Jacanidae**

Genus ACTOPHILORNIS Oberh.

Actophilornis africanus (Gmel.) African Jacana

Parra africana Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 709. Africa (restricted to Abyssinia, Grant, Ibis, 1915: 59).

Actophilornis africana; Vincent, 1952: 24; Macdonald, 1957: 64; C.B.C., 1963: 27.

Actophilornis africanus; McLachlan & Liversidge, 1957: 119; Praed & Grant, 1962: 278.

A straggler, recorded less than 20 times, chiefly from the south and south-west. But there were four or five records in the summer of 1965–6 and the species may be extending its range.

Cl 1, **N 3**, P, **S**, **Sw 1**.

Family **Burhinidae**

Genus BURHINUS Illiger

Burhinus capensis capensis (Licht.) Dikkop

Oedicnemus capensis Lichtenstein, Verzeichnis der Doubletten . . . , 1823: 69. Cape of Good Hope.

Burhinus capensis capensis; Vincent, 1952: 24; Praed & Grant, 1962: 276; C.B.C., 1963: 21.

Burhinus capensis; Macdonald, 1957: 69; McLachlan & Liversidge, 1957: 147.

Widely distributed, usually within reach of water. In the Winter Rainfall area, common, even in built-up areas (regular in the city of Cape Town, in the Public Gardens and on the foreshore).

BW 2, C 2, Ce 2, Cl 1, Cn, Ct, D, F, H, K, Lg, M, MB, **N 1**, N 3, O, P, **PA**, R, Rb, Rv 1, **S**, Sw 1, T, U, V, VW, W, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	13	9	2	3			1	37	65	65	34	19
Karoo			1						1			

Burhinus vermiculatus vermiculatus (Cab.) Water Dikkop

Oedicnemus vermiculatus Cabanis, J. Orn., Lpz., 16, 1868: 413. East Africa (restricted to Lake Jipe, near Taita, Kenya, Finsch & Hartlaub, Die Vögel von Ost-Afrika, 1870: 623).

Burhinus vermiculatus vermiculatus; Vincent, 1952: 24; McLachlan & Liversidge, 1957: 147; Praed & Grant, 1962: 277; C.B.C., 1963: 26.

Much less common than the preceding and much more dependent upon water; hence, north of the Winter Rainfall area, recorded only from the Orange River, and a few places in the south of the Karoo.

Cl 1, MB, N 1, O, PA, S, Sw 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									5	6	1	1

Family **Haematopidae**

Genus HAEMATOPUS L.

Haematopus ostralegus L. European Oystercatcher

Haematopus Ostralegus Linnaeus, Systema naturae, ed. 10, 1758: 152. Europe (restricted to Oeland, Sweden); McLachlan & Liversidge, 1957: 124; C.B.C., 1963: 28.

Haematopus ostralegus longipes; Vincent, 1952: 26.

Haematopus ostralegus ostralegus; Praed & Grant, 1962: 302.

On reasons for use of binomial only, see South African Ornithological Society, List Committee Report (1960).

An occasional migrant from the Palaearctic penetrates as far south as Saldanha Bay and the Cape Peninsula.

S.

Haematopus moquini Bp. Black Oystercatcher

Haematopus moquini Bonaparte, C.r. hebd. Séanc. Acad. Sci., Paris, 43, 1856: 1020. Cape of Good Hope (*nom. nov.* for *Haematopus niger* Temminck 1820, not *Haematopus niger* Pallas, 1811); McLachlan & Liversidge, 1952: 124; Praed & Grant, 1962: 302; C.B.C., 1963: 28.

Haematopus ostralegus moquini; Vincent, 1952: 26.

I do not agree with the view that *moquini* is a subspecies of *ostralegus* (see South African Ornithological Society, List Committee Report, 1961).

A fairly common species along the coast from the mouth of the Groene River to that of the Little Brak.

Cl 1, MB, N 1, Rv 1, **S**, Sw 1, V.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	19	6	11		1					1	10	51

Family **Charadriidae**

The generic classification and order within the sub-family Charadriinae (i.e. as far as *Charadrius* spp.) follow Bock (1958).

Genus VANELLUS Briss.

Vanellus armatus (Burch.) Blacksmith Plover

Charadrius armatus Burchell, Travels in the interior of southern Africa, 1, 1822: 501. Klaarwater, Hey District, Cape Province.

Hoplopterus armatus; Vincent, 1952: 28; Macdonald, 1957: 65; McLachlan & Liversidge, 1957: 133; Praed & Grant, 1962: 297; C.B.C., 1963: 30.

A species which has extended its range during the last thirty years. Roberts (1940) records it only 'north of the Karroo districts' and it is not included by Hare (1915) in his list of Philipstown birds, though now common in that district. It was present in the northern Karoo at least by 1943 (Winterbottom, 1945) and was first reported from the Cape Town area in 1939 (Broekhuysen, 1942), breeding there from 1947 onwards. It is now widespread south-east of a line from Verlorenvlei, Brandvlei, Vanwyksvlei, and Kareekloof, and probably further to the north-west, as a breeding resident near water.

B, BW 1, BW 2, BW 3, C 1, C 2, Ce 1, Ce 2, Cl 1, Cn, C, D, F, **H**, L, Lg, M, MB, N 1, N 3, O, P, PA, R, Rb, Rv 1, **S**, Su 1, Su 2, Sw 1, T, U, V, VW, W, Wo 1, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.		2		2	2	14	39	31	17	11	2	
Karoo									1	1		

Vanellus coronatus coronatus (Bodd.) Crowned Plover

Charadrius Coronatus Boddaert, Table des planches enluminéez . . . , 1783: 49. Cape of Good Hope.

Stephanibyx coronatus coronatus; Vincent, 1952: 28; McLachlan & Liversidge, 1957: 131; Praed & Grant, 1962: 293; C.B.C., 1963: 30.

Stephanibyx coronatus; Macdonald, 1957: 65.

Abundant in open country, especially pastures, in the Winter Rainfall area. More sparingly distributed along the west coast, round Upington, and in the eastern Karoo. No records from the central parts of the Karoo.

BW 2, C 2, Ce 1, Ce 2, Cl 1, Cn, D, H, L, M, **MB**, N 1, N 3, O, P, PA, R, Rb, Rv 1, **S**, Sw 1, T, U, V, **Wo 1**, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	23	10	3	1	1	1	1	36	63	47	42	29
Karoo										1	1	

Vanellus melanopterus minor (Zedl.) Black-winged Plover

Stephanibyx melanopterus minor Zedlitz, Orn. Mber., 16, 1908: 180. St. John's River, Pondoland; Vincent, 1952: 28; McLachlan & Liversidge, 1957: 13; Praed & Grant, 1962: 295; C.B.C., 1963: 63.

A rare straggler from further east, known only from Mossel Bay and Malmesbury.

MB, **S**.

Genus PLUVIALIS Briss.

Pluvialis dominicus fulvus (Gmel.) Golden Plover

Charadrius fulvus Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 687. Tahiti.

Charadrius dominicus fulvus; Vincent, 1952: 27; McLachlan & Liversidge, 1957: 130; C.B.C., 1963: 29.

Charadrius fulvus; Praed & Grant, 1962: 291.

A very rare migrant from Asia. There is a specimen from Zeekoevlei in the South African Museum and it has also been recorded from Zoetendalsvlei, Bredasdorp.

S.

Pluvialis squatarola (L.) Grey Plover

Tringa Squatarola Linnaeus, Systema naturae, ed. 10, 1758: 149. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 2, 1920: 1553).

Squatarola squatarola; Vincent, 1952: 27; McLachlan & Liversidge, 1957: 130.

Charadrius squatarola; Praed & Grant, 1962: 292; C.B.C., 1963: 30.

A regular, non-breeding migrant from the Palaearctic to our coasts and to vleis near the coast but no inland records.

MB, N 1, Rv 1, **S**, Sw 1, V.

Genus CHARADRIUS L.

On the ecological relations of the first five species listed here, see Winterbottom (1963*b*) and Blaker (1966).

Charadrius hiaticula tundrae (Lowe) Ringed Plover

Aegialitis hiaticola tundrae Lowe, Bull. Br. Orn. Club, 36, 1915: 7. Yenesei Valley.

Charadrius hiaticula tundrae; Vincent, 1952: 27; McLachlan & Liversidge, 1957: 126; Praed & Grant, 1962: 283; C.B.C., 1963: 28.

C.h. hiaticula L. does not occur within South African limits—see Salomonsen (1955) and South African Ornithological Society, List Committee Report (1956).

A non-breeding summer visitor to our vleis, lagoons and coasts from the Palaearctic, commonest near the coast but recorded from many inland localities as well. Occasionally over-winters.

Cl 1, F, MB, N 1, P, Rb, **Rv 1**, S, Sw 1, T, **U**, V, Wo 1.

Charadrius pecuarius Temm. Kittlitz's Plover

Charadrius pecuarius Temminck, Nouveau recueil de planches coloriées d'oiseaux, 31, 1823: pl. 183. Cape of Good Hope; Vincent, 1952: 27; McLachlan & Liversidge, 1957: 128; C.B.C., 1963: 29.

Charadrius pecuarius pecuarius; Macdonald, 1957: 64; Praed & Grant, 1962: 286.

I consider *C. sanctaehelenae* (Harting) to be a good species.

Perhaps the commonest of our resident species of *Charadrius*, at least in the Winter Rainfall area, and widely distributed both there and on the Karoo. Less dependent on water than the other species of its genus.

B, BW 2, C 1, C 2, Ce 1, Ce 2, Cl 1, Cn, **F**, H, MB, N 1, O, P, R, **Rb**, Rv 1, **S**, Su 2, T, V, VW, W, Wo 1, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	83	33	9	6	2		2	38	62	86	73	77
Karoo					3					1		

Charadrius tricollaris tricollaris Vieill. Three-banded Plover

Charadrius tricollaris Vieillot, Nouvelle dictionnaire d'histoire naturelle, 27, 1818: 147. Africa (restricted to Cape Town, Grant, Ibis, 1915: 57).

Charadrius tricollaris tricollaris; Vincent, 1952: 27; Macdonald, 1957: 64; McLachlan & Liversidge, 1957: 129; Praed & Grant, 1962: 287; C.B.C., 1963: 29.

Widely distributed on vleis and dams, with a strong partiality for muddy places; and, on the Karoo, the most frequently encountered of the resident *Charadrius* spp.

All districts except BW 3, Cl 2, and Rv 2. Coll.: **F**, **M**, **N 3**, **PA**, **Rb**, **S**, **U**, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1						6	17	21	16	13	5
Karoo						1			1	2		

Charadrius marginatus marginatus Vieill. White-fronted Plover

Charadrius marginatus Vieillot, Nouvelle dictionnaire d'histoire naturelle, 27, 1818: 138. No locality (Cape Peninsula, Grant & M.-Praed, Bull. Br. Orn. Club, 62, 1941: 13).

Charadrius marginatus marginatus; Vincent, 1952: 27; McLachlan & Liversidge, 1957: 127; Praed & Grant, 1962: 283.

Charadrius alexandrinus marginatus; C.B.C., 1963: 29.

Chiefly an inhabitant of coastal sand-dunes and sandy beaches, where it is generally distributed and common. It has bred on saline inundations a few miles inland at De Hoop, Bredasdorp; and is recorded as a casual from the Beaufort West and Hopetown districts.

BW 2, Cl 1, H, MB, N 1, Rv 1, **S**, Sw 1, V.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	28	16	6	12	3	4	8	29	59	41	39	79

Charadrius pallidus pallidus Strickl. Chestnut-banded Plover

Charadrius pallidus Strickland, Jardine's Contr. Orn., 1852: 158. Damaraland (restricted to Walfish Bay, Grant & M.-Praed, Bull Br. Orn. Club, 73, 1953: 12).

Charadrius pallidus pallidus; Vincent, 1952: 27; McLachlan & Liversidge, 1957: 128; Praed & Grant, 1962: 285; C.B.C., 1963: 29.

Normally an inhabitant of inland brackish water and salt pans, though occurring at times both on the coast and on inland fresh-water pans. It appears to be a nomadic species, whose appearances and disappearances defy analysis at present.

C 1, Cn, N 1, R, **S**, VW.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.			1	2	1				1	3	3	5

Charadrius leschenaultii Less. Great Sand Plover

Charadrius leschenaultii Lesson, in Dictionnaire des sciences naturelles, 43, 1926: 36. Pondicherry; Vincent, 1952: 27; Praed & Grant, 1962: 290.
Charadrius leschenaulti; McLachlan & Liversidge, 1957: 129; C.B.C., 1963: 29.

Very rare straggler from Asia. There is a specimen from Salt River in the South African Museum and it has also been recorded from Strandfontein, Saldanha Bay and the Breede River mouth.

S, Sw 1.

Charadrius asiaticus Pall. Caspian Plover

Charadrius asiaticus Pallas, Reise durch verschiedene Provinzen des russischen Reichs, 2, 1773: 715. S. Tartary; Vincent, 1952: 27; McLachlan & Liversidge, 1957: 129; Praed & Grant, 1962: 291.

A rare straggler from the Palaearctic, recorded once from the Philipstown District and once from Beaufort West.

BW 2, P.

Family **Scolopacidae**

Genus TRINGA L.

On the limits of this genus, see British Ornithologists' Union Taxonomic Subcommittee (1956) and South African Ornithological Society, List Committee Report (1958).

Tringa terek (Lath.) Terek Sandpiper

Scolopax terek Latham, Index ornithologicus, 2, 1790: 724. Terek River.
Xenus cinerea; Vincent, 1952: 28.
Xenus cinereus; McLachlan & Liversidge, 1957: 138; Praed & Grant, 1962: 318.
Tringa terek; C.B.C., 1963: 30.

Only recorded from the extreme south and south-west, on or near the coast. Regular in some numbers at Saldanha Bay; apparently only a straggler further south; and not recorded from further north, though it probably occurs.

MB, S, Sw 1.

Tringa hypoleucos Common Sandpiper

Tringa Hypoleucos Linnaeus, Systema naturae, ed. 10, 1758: 149. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 2, 1921: 1623–5).
Actitis hypoleucos; Vincent, 1952: 28; Macdonald, 1957: 66; McLachlan & Liversidge, 1957: 139.
Tringa hypoleucos; Praed & Grant, 1962: 318; C.B.C., 1963: 30.

Rather a solitary and unobtrusive species, a non-breeding summer visitor from the Palaearctic to our vleis, rivers and coasts, widely distributed but nowhere numerous. An occasion bird over-winters.

BW 2, C 1, Ce 2, Cl 1, Cn, Ct, D, F, **H**, **MB**, N 1, N 3, N 4, O, P, Pr, Rb, Rv 1, S, Su 2, Sw 1, T, U, V, VW, Wo 1, Wo 2.

[**Tringa ochropus** L. Green Sandpiper

Tringa Ocrophus (*sic*) Linnaeus, Systema naturae, ed. 10, 1758: 149. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 2, 1921).

Tringa ocrophus; Vincent, 1952: 28; Praed & Grant, 1962: 319.

Tringa ochrophus; McLachlan & Liversidge, 1957: 139.

Tringa ochropus; C.B.C., 1963: 63.

A sight record of Layard's from Zoetendalsvlei has never been substantiated and there appears to be no real justification for Mackworth-Praed & Grant's view (1962) that this sandpiper occurs throughout southern Africa in the non-breeding season.]

Tringa totanus (L.) Redshank

Scolopax Totanus Linnaeus, Systema naturae, ed. 10, 1758: 145. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 2, 1921).

Tringa totanus totanus; Vincent, 1952: 29; Praed & Grant, 1962: 32).

Tringa totanus; Macdonald, 1957: 67; McLachlan & Liversidge, 1957: 140; C.B.C., 1963: 30.

In the absence of specimens, I prefer to use the binomial only.

A rare straggler from the Palaearctic, recorded only from Philipstown and from the extreme south-west.

P, S.

Tringa stagnitilis (Bechst.) Marsh Sandpiper

Totanus stagnitilis Bechstein, Ornithologisches Taschenbuch, 2, 1803: 292. Germany.

Tringa stagnitilis; Vincent, 1952: 29; McLachlan & Liversidge, 1957: 140; Praed & Grant, 1962: 323; C.B.C., 1963: 30.

A common, non-breeding, summer visitor to our vleis and coasts from the Palaearctic. Occasionally over-winters.

B, C 1, Ce 2, **Cl 1**, Cn, F, H, MB, N 1, O, P, **S**, **U**, V, W, Wo 1, **Wo 3**.

Tringa nebularia (Gunn.) Greenshank

Scolopax nebularius Gunnerus, in Leem's Beskrivelse over finmarkens lapper, 1767: 251. Trondhjem, Norway.

Tringa nebularius; Vincent, 1952: 29; C.B.C., 1963: 31.

Tringa nebularis; Macdonald, 1957: 67.

Tringa nebularia; McLachlan & Liversidge, 1957: 141; Praed & Grant, 1962: 323.

As for the preceding, but commoner and more often over-winters.

B, BW 2, C 1, C 2, Ce 1, Ce 2, Ce 3, Cl 1, Cn, Ct, F, H, Lg, M, MB, **N 1**, N 3, O, P, PA, R, Rb, Rv 1, **S**, Su 1, Sw 1, T, **U**, **V**, VW, W, Wo 1, **Wo 3**.

Tringa glareola L. Wood Sandpiper

Tringa Glareola Linnaeus, Systema naturae, ed. 10, 1758: 149. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1921); Vincent, 1952: 29; McLachlan & Liversidge, 1957: 141; Praed & Grant, 1962: 320; C.B.C., 1963: 31.

A common, non-breeding summer visitor from the Palaearctic, more often found on small pools and mud-holes than *T. nebularia* or *T. stagnitilis* but not so numerous generally, at least in the Winter Rainfall area.

B, BW 2, C 1, Ce 1, Ce 2, Cl 1, Cn, D, F, **H**, M, MB, N 1, O, P, PA, Rb, **S**, Sw 1, T, U, V, VW, W, Wo 1, **Wo 3**.

Genus CALIDRIS Merrem

Calidris ferruginea (Pontop.) Curlew-Sandpiper

Tringa Ferrugineus Pontoppidan, Danske atlas, 1, 1763: 624. Bornholm, Denmark.

Calidris testacea; Vincent, 1952: 29; McLachlan & Liversidge, 1957: 136; Praed & Grant, 1962: 312.

Calidris ferruginea; C.B.C., 1963: 31.

This name antedates *Scolopax testacea* Pallas, 1764.

An abundant, non-breeding, summer visitor from the Palaearctic, especially near the coast, but also on inland waters. Incredibly abundant on Saldanha Bay just before its northern migration. Ringing records show that the same birds will return to the same off-season quarters in successive years. Two birds ringed at Rondevlei have been recovered in Russia. Small flocks sometimes over-winter in the Winter Rainfall area.

B, BW 2, C 1, Ce 1, Cl 1, Cn, F, **H**, MB, N 1, Rb, Rv 1, **S**, Sw 1, T, U, V, VW, Wo 3.

Calidris alpina schinzii (Brehm) Dunlin

Pelidua Schinzii Brehm, Beiträge zur Vögelkunde, 3, 1822: 355. Rügen, Pomerania.

Calidris alpina schinzii; C.B.C., 1963: 31.

Calidris alpina; Praed & Grant, 1962: 313.

A single specimen was trapped at Rondevlei, 12 November, 1959 (Middlemiss, 1959), the first record of the species from South Africa (though there is a tentative sight record by M. F. M. Meiklejohn (1939) for Zeekoevlei) and the first record of this subspecies from the Ethiopian Region.

Calidris minuta (Leisl.) Little Stint

Tringa minuta Leisler, Nachtrag zu Bechstein's Naturgeschichte Deutschlands, 1812: 74. Near Hanau, Germany.

Calidris minuta; Vincent, 1952: 29; Macdonald, 1957: 66; McLachlan & Liversidge, 1957: 136; Praed & Grant, 1962: 314; C.B.C., 1963: 31.

As for *C. ferruginea*, but more numerous inland and much less so on salt water. It also departs later than the Curlew Sandpiper. A bird ringed at Rondevlei has been recovered in Russia, *c.* 50°N. Occasionally over-winters.

BW 2, C 1, Ce 1, Ce 2, Ce 3, Cl 1, Cn, **F**, K, MB, N 1, O, P, Rb, Rv 1, **S**, Su 2, Sw 1, T, **U**, V, VW, W, Wo 1, **Wo 3**.

Calidris melanotos (Vieill.) Pectoral Sandpiper

Tringa melanotos Vieillot, Nouvelle dictionnaire d'histoire naturelle, 34, 1819: 462. Paraguay.

Calidris melanotos; Vincent, 1952: 29; McLachlan & Liversidge, 1957: xxxviii.

One captured at Rondevlei, 25 March 1965 (Middlemiss, 1965).

S.

Calidris canutus canutus (L.) Knot

Tringa Canutus Linnaeus, Systema naturae, ed. 10, 1758: 149. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 2, 1921: 1586–9).

Calidris canutus canutus; Vincent, 1952: 29; Praed & Grant, 1962: 315; C.B.C., 1963: 31.

Calidris canutus; McLachlan & Liversidge, 1957: 137.

An uncommon, non-breeding migrant from the Palaearctic, recorded only from the coasts in the extreme south-west.

S.

Calidris alba (Pall.) Sanderling

Tringa alba Pallas, in Vroeg's Catalogus . . . vogelen . . . dieren. Adumbratiuncula, 1764: 7. Coast of North Sea.

Crocethia alba; Vincent, 1952: 29; McLachlan & Liversidge, 1957: 137; Praed & Grant, 1962: 316; C.B.C., 1963: 31.

An uncommon, non-breeding migrant from the Palaearctic, chiefly to the coast (not uncommon at Port Nolloth) and to vleis a few miles inland; but recorded also from Brandvlei, Calvinia. A few over-winter.

C 1, **N 1**, Rv 1, **S**, V.

Genus PHILOMACHUS Merrem

Philomachus pugnax (L.) Ruff

Tringa Pugnax Linnaeus, Systema naturae, ed. 10, 1758: 148. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1920: 1594–7).

Philomachus pugnax; Vincent, 1952: 29; McLachlan & Liversidge, 1957: 138; Praed & Grant, 1962: 316; C.B.C., 1961: 31.

An abundant, non-breeding, summer visitor to our vleis from the Palaearctic. Sometimes occurs on dry, short-grass plains. Rarely over-winters.

B, BW 2, C 1, Ce 1, Ce 2, Cl 1, Cn, F, H, Lg, M, MB, N 1, O, P, R, Rv 1, **S**, Su 2, U, V, VW, Wo 1, Wo 3.

Genus ARENARIA Briss.

Arenaria interpres interpres (L.) Turnstone

Tringa interpres Linnaeus, Systema naturae, ed. 10, 1758: 148. Europe & North America (restricted to Gothland, Sweden, Hartert, Die Vögel der paläarktischen Fauna, 2, 1928: 1566–9).

Arenaria interpres interpres; Vincent, 1952: 29; McLachlan & Liversidge, 1957: 125; Praed & Grant, 1962: 317; C.B.C., 1963: 32.

Chiefly, but not exclusively, found on the coast and especially on the offshore islands. A non-breeding, summer visitor from the Palaearctic. Some non-breeding birds over-winter on the coast of Little Namaqualand.

Cl 1, H, MB, **N 1**, Rv 1, **S**, **U**, Wo 3.

Genus GALLINAGO Briss.

The South African Ornithological Society, List Committee (1963) accepted Wetmore's argument against the use of this name and adopted *Capella* Frenzel. Mayr (1963) has pointed out the objections to such a course and they seem to me convincing.

Gallinago media (Lath.) Double Snipe

Scolopax Media Latham, A general synopsis of birds, Suppl. 1, 1787: 292. Lancashire, England.

Capella media; Vincent, 1952: 30; McLachlan & Liversidge, 1957: 135; Praed & Grant, 1962: 308.

Gallinago media; C.B.C., 1963: 63.

A rare, non-breeding, summer visitor from the Palaearctic to swampy places, recorded only from the Cape Flats and Oudtshoorn.

Cl 1, O, **S**.

Gallinago gallinago nigripennis (Bp.) Ethiopian Snipe

Gallinago nigripennis Bonaparte, Iconographia della fauna italica, Ucc., 25, 1839: 4. Cape of Good Hope.

Capella nigripennis nigripennis; Vincent, 1952: 30; McLachlan & Liversidge, 1957: 136; Praed & Grant, 1962: 305.

Gallinago nigripennis nigripennis; C.B.C., 1963: 32.

I have followed Voous (1960) in placing this snipe as conspecific with *G. gallinago* (L.) of the Palaearctic.

Sparingly distributed in swampy places in the Winter Rainfall area and Little Karoo.

Ce 2, Cl 1, O, R, Rb, **S**, Sw 1, T, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.						2	9	7	3	2		

Genus LIMOSA Briss.

Limosa limosa limosa (L.) Black-tailed Godwit

Scolopax Limosa Linnaeus, Systema naturae, ed. 10, 1758: 147. Europe (restricted to Sweden, Hartert., Die Vögel der paläarktischen Fauna, 2, 1921: 1636–41).

Limosa limosa limosa; Vincent, 1952: 30; McLachlan & Liversidge, 1957: 142; Praed & Grant, 1962: 324; C.B.C., 1963: 32.

A rare straggler from the Palaearctic, recorded in our area only from Saldanha Bay and Outdshoorn.

O, S.

Limosa lapponica lapponica (L.) Bar-tailed Godwit

Scolopax lapponica Linnaeus, Systema naturae, ed. 10, 1758: 147. Lapland.

Limosa lapponica lapponica; Vincent, 1952: 30; McLachlan & Liversidge, 1957: 142; Praed & Grant, 1962: 325; C.B.C., 1963: 32.

A regular summer visitor to Saldanha Bay from the Palaearctic. Further south, an uncommon straggler but reaches Cape L'Agulhas, the Breede River mouth and the Mossel Bay District.

MB, O, **S**, Sw 1, V.

Genus NUMENIUS Briss.

Numenius arquata orientalis Brehm Curlew

Numenius orientalis Brehm, Handbuch der Naturgeschichte aller Vögel Deutschlands, 1831: 610. East Indies.

Numenius arquata orientalis; Vincent, 1952: 30; McLachlan & Liversidge, 1957: 143; Praed & Grant, 1962: 326.

Numenius arquata; C.B.C., 1963: 32.

The typical subspecies, *N.a. arquata* (L.) may also occur.

Fairly common as a non-breeding summer visitor from the Palaearctic to coastal lagoons and estuaries; much less common on inland waters. Occasionally over-winters.

Cl 1, Cn, F, H, MB, **N 1**, P, Rv 1, **S**, Sw 1, V.

Numenius phaeopus phaeopus (L.) Whimbrel

Scolopax Phaeopus Linnaeus, Systema naturae, ed. 10, 1758: 146. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 2, 1921: 1641–51).

Numenius phaeopus phaeopus; Vincent, 1952: 30; McLachlan & Liversidge, 1957: 143; Praed & Grant, 1963: 327; C.B.C., 1963: 33.

A fairly common, non-breeding, summer visitor from the Palaearctic, almost entirely to salt water and commoner on the open coast, especially where there are rocks, than the Curlew. Occasionally over-winters, 56 having been seen on Saldanha Bay at the end of June.

MB, **N 1**, Rv 1, **S**, Sw 1, V.

Family **Himantopidae**

Genus HIMANTOPUS Briss.

Himantopus himantopus himantopus (L.) Black-winged Stilt

Charadrius Himantopus Linnaeus, Systema naturae, ed. 10, 1758: 151. Southern Europe.

Himantopus himantopus meridionalis; Vincent, 1952: 26; McLachlan & Liversidge, 1957: 145.

Himantopus himantopus; Macdonald, 1957: 66; Praed & Grant, 1962: 304.

Himantopus himantopus himantopus; C.B.C., 1963: 28.

On the invalidity of *meridionalis* Brehm (Isis, 1843: 723—South Africa), see Winterbottom (1962*j*).

Evidently one of the species which has greatly expanded its range during the last hundred years. Layard (1867) says of it: 'But one specimen has been obtained within the colony'; and Stark & Sclater (1900–6) give only three localities for the Cape—Cape Flats, Zak River in Fraserburg, and the Berg River, where they say Andersson found it breeding abundantly. Now widely distributed and, in the Winter Rainfall area, common.

B, BW 2, C 1, Ce 1, Ce 2, Cl 1, Cn, F, H, L, MB, N 1, N 3, O, P, PA, Rb, Rv 1, **S**, Sw 1, Sw 2, T, V, VW, W, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.						30	14	85	205	49	3	

Genus RECURVIROSTRA L.

Recurvirostra avosetta L. Avocet

Recurvirostra Avosetta Linnaeus, Systema naturae, ed. 10, 1758: 151. Europe (restricted to Oeland, Sweden); Vincent, 1952: 27; Macdonald, 1957: 66; McLachlan & Liversidge, 1957: 144; Praed & Grant, 1962: 303; C.B.C., 1963: 28.

Status uncertain. Some are undoubtedly breeding residents but others may move considerable distances; and its presence in the Karoo areas, where also it breeds, depends upon there being suitable water available.

B, BW 2, C 1, Ce 1, Cl 1, Cn, Ct, F, H, K, N 1, N 3, O, P, PA, **R**, **S**, Su 1, Sw 1, T, V, VW, W, **Wo 1**, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.							6	7	36	10		
Karoo				1					1			

Family **Rostratulidae**

Genus ROSTRATULA Vieill.

Rostratula benghalensis benghalensis (L.) Painted Snipe

Rallus benghalensis Linnaeus, Systema naturae, ed. 10, 1758: 153. Asia.
Rostratula benghalensis benghalensis; Vincent, 1952: 26; C.B.C., 1963: 28.
Rostratula benghalensis; Macdonald, 1957: 66; McLachlan & Liversidge, 1957: 121; Praed & Grant, 1962: 305.

Sparingly distributed in wet places with suitable cover, chiefly in the Winter Rainfall area but also on the Karoo where and when conditions are right.

BW 2, C 1, D, MB, O, P, Rb, **S**, **U**, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1	3	6		

Family **Glareolidae**

Genus CURSORIUS Lath.

Cursorius rufus Gould Burchell's Courser

I see no advantage in making *rufus* a subspecies of *cursor* (Lath.) as Peters, Macdonald (1957) and others have done.

a. *Cursorius rufus rufus* Gould.

Cursorius rufus Gould, Proc. zool. Soc. Lond. for 1836, 1837: 81. 'In insulis Oceani Indici' (error: corrected to Potchefstroom, Peters, C. L. Birds of the world, 2, 1934: 300); McLachlan & Liversidge, 1957: 148 (in part); Praed & Grant, 1962: 330 (in part).
Cursorius rufus rufus; Vincent, 1952: 30; C.B.C., 1963: 33.
Cursorius cursor rufus; Macdonald, 1957: 67.

Widely distributed on the Karoo, except where replaced by the next form; but subject to nomadic movements not yet understood.

B, BW 2, **C 1**, **C 2**, Cn, **D**, H, **O**, **P**, R, Rb, S, Sw 1, **U**, **V**, VW, W.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo										1		1

b. *Cursorius rufus theresae* Meinertzh.

Cursorius cursor theresae Meinertzhagen, Bull. Br. Orn. Club, 69, 1949: 102. Springbok.
Cursorius rufus theresae; Vincent, 1952: 30.
Cursorius rufus; McLachlan & Liversidge, 1957: 148 (in part); Praed & Grant, 1962: 330 (in part).

Replaces the preceding in Little Namaqualand, east to Kenhardt and Brandvlei.

C 1, K, N 1, N 3, **N** 4.

Cursorius temminckii Swains. Temminck's Courser

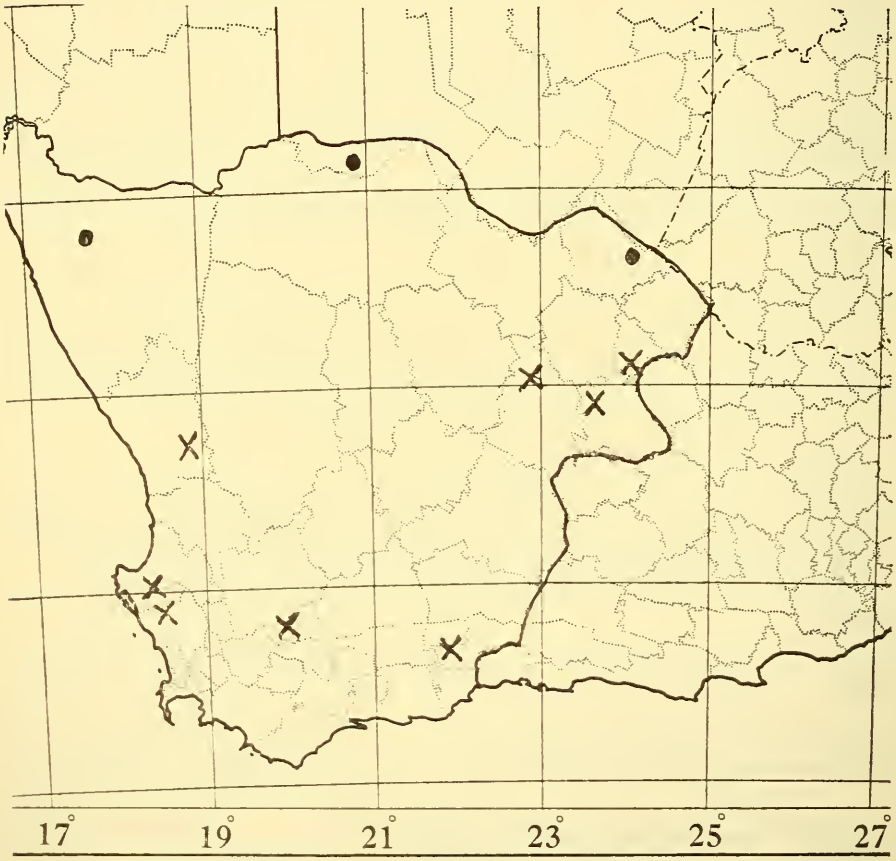
Cursorius Temminckii Swainson, Zoological illustrations, 2, 1822: pl. 106. No locality (Senegal = Praed & Grant, 1962: 331).

Cursorius temminckii temminckii; Vincent, 1952: 31; McLachlan & Liversidge, 1957: 149.

I see no advantage in making *temminckii* a subspecies of *coromandelicus* (Gmel.).

Only recorded from the extreme north (Beaufort West, Namaqualand, Philipstown), where probably an occasional or seasonal visitor.

BW 2, N 1, N 3, N 4, P.



Map 16. Distribution of subspecies of *Rhinoptilus africanus*. Dots: *R. a. africanus*; crosses: *R. a. granti*.

Genus RHINOPTILUS Strickl.

Rhinoptilus africanus (Temm.) Double-banded Courser

Revision, Irwin (1963).

a. *Rhinoptilus africanus africanus* (Temm.)

Cursorius africanus Temminck, Catalogue systématique du cabinet d'ornithologie, 1807: 175, 263. Pofadder.

Rhinoptilus africanus africanus; Vincent, 1952: 31; Macdonald, 1957: 68 (in part); McLachlan & Liversidge, 1957: 149.

Hemerodromus africanus africanus; Praed & Grant, 1962: 332 (in part).

Fairly common, but nomadic, in the Orange River drainage of the north. **H**, K, **N 3**, N 4, P, **U**.

Breeding (both subspecies)

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo		2								1	1	

b. *Rhinoptilus africanus granti* W. L. Scl.

Rhinoptilus africanus granti W. L. Sclater, Bull. Br. Orn. Club, 41, 1921: 132. Deelfontein; Vincent, 1952: 31; McLachlan & Liversidge, 1957: 149; C.B.C., 1963: 33.

Rhinoptilus africanus africanus; Macdonald, 1957: 68 (in part).

Hemerodromus africanus africanus; Praed & Grant, 1962: 332 (in part).

Replaces the preceding in the south, north to De Aar, Jagersberg and Vanrhynsdorp and south-west to Oudepost, on the Hopefield–Malmesbury border and even to Somerset West, probably as a straggler.

BW 2, Ce 3, Cl 1, Cn, Ct, **D**, F, **H**, Lg, **O**, PA, **R**, **S**, **V**, **VW**, **Wo 3**.

[**Rhinoptilus cinctus seebohmi** Sharpe Seebohm's Courser

Rhinoptilus seebohmi Sharpe, Bull. Br. Orn. Club, 3, 1893: 13. Ondongua, Ovamboland.

Rhinoptilus cinctus seebohmi; Vincent, 1952: 31; McLachlan & Liversidge, 1957: 150.

Hemerodromus cinctus seebohmi; Praed & Grant, 1962: 333.

May occur in the extreme north as a visitor.]

[**Rhinoptilus chalcopterus albofasciatus** Sharpe. Bronze-winged Courser

Rhinoptilus albofasciatus Sharpe, Bull. Br. Orn. Club, 3, 1893: 14. Colenso, Natal.

Rhinoptilus chalcopterus albofasciatus; Vincent, 1952: 31.

Rhinoptilus chalcopterus obscurus; Macdonald, 1957: 68.

Rhinoptilus chalcopterus; McLachlan & Liversidge, 1957: 150; Praed & Grant, 1962: 334.

Doubt has been cast on the validity of *albofasciatus*, but it is just recognizable in series.

May occur as a straggler in the north-east.]

Genus GLAREOLA Briss.

Glareola nordmanni Nordm. Black-winged Pratincole

Glareola Nordmanni Nordmann, Bull. Soc. imp. Nat. Moscou, 15, 1842: 314. South Russia; Vincent, 1952: 31; McLachlan & Liversidge, 1957: 151; Praed & Grant, 1962: 337; C.B.C., 1963: 33.

The British Ornithologists' Union Taxonomic Subcommittee (1956) proposed to regard *nordmanni* as a colour-phase of *pratincola* (L.) For the reasons set out in the South African Ornithological Society List Committee Report (1958), with which I agree, I reject this view.

A non-breeding migrant from the Palaearctic, irregular in appearance and not known at all from the area north and west of the main railway line, except from Upington. Only an occasional straggler to the Winter Rainfall area. Found in wet ground on the edges of vleis.

Cn, D, H, O, P, **S**, U, Wo 1.

Family **Laridae**

Genus LARUS L.

Larus dominicanus Licht. Southern Black-backed Gull

Larus dominicanus Lichtenstein, Verzeichniss der Doubletten . . . , 1823: 82. Coast of Brazil; Vincent, 1952: 32; Alexander, 1955: 73; Macdonald, 1957: 70; McLachlan & Liversidge, 1957: 156; Praed & Grant, 1962: 345; C.B.C., 1963: 33.

Chiefly a marine species, not recorded more than a few miles from the coast. There, however, a common, resident, breeding species.

Cl 1, MB, N 1, Rv 1, **S**, Sw 1, V.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R. Col.										2	2	2
Ind.									8	15	5	17

Larus cirrocephalus Vieill. Grey-headed Gull

Larus cirrocephalus Vieillot, Nouvelle dictionnaire d'histoire naturelle, 21, 1818: 502. Brazil (type from Rio de Janeiro); Vincent, 1952: 32; McLachlan & Liversidge, 1957: 156; Praed & Grant, 1962: 346; C.B.C., 1963: 34.
Larus cirrocephalus poiocephalus; Alexander, 1955: 88.

African birds are, on average, different in some details from American birds, but the differences do not approach the '75%' convention desirable for nomenclatorial recognition (see Winterbottom, 1961*f*).

Chiefly an inland species, though recorded from a few places on the west coast. It is the common gull on the Karoo vleis, when these hold water; and in 1960 and 1961 bred as far south as De Hoop vlei, Bredasdorp District.

B, C 1, **Cn**, H, MB, N 1, P, **S**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									11	16		
Karoo								1				

Larus novaehollandiae hartlaubii Bruch Hartlaub's Gull

Larus (*Gavia*) *Hartlaubii* Bruch, J. Orn., Lpz., 1853: 102. Cape of Good Hope and Indian coasts (restricted to Cape of Good Hope).

Larus hartlaubii; Vincent, 1952: 32; McLachlan & Liversidge, 1957: 157; Praed & Grant, 1962: 347; C.B.C., 1963: 34.

Larus novaehollandiae hartlaubii; Alexander, 1955: 96.

Confined to the west coast, from Cape L'Agulhas (rare) north and abundant from False Bay northwards to the Orange River mouth. Essentially a marine species, with no reliable records from more than a few miles inland but abundant on fresh-water vleis in the south-west and sometimes follows the plough, as *L. ridibundus* does in Europe.

Cl 1, N 1, **S**, Sw 1, V.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R. Col.					2	1			1	1		
Ind.				1	2		15	10	10			

Genus CHLIDONIAS Ruf.

I keep this genus for convenience, though Moynihan (1959) suppresses it and considers *hybrida* an intermediate between the marsh terns and the typical *Sterna* spp. The latter, being purely marine, are omitted from this list.

Chlidonias leucoptera (Temm.) White-winged Black Tern

Sterna leucoptera Temminck, Manuel d'ornithologie, 1st ed., 1815: 483. Shores of the Mediterranean.

Chlidonias leucoptera; Vincent, 1952: 33; Alexander, 1955: 122; Macdonald, 1957: 70; McLachlan & Liversidge, 1957: 162; Praed & Grant, 1962: 362; C.B.C., 1963: 35.

A non-breeding migrant from the Palaearctic whose penetration of the area has taken place within this century. Stark & Sclater (1900–6) have only a single record for the whole Cape Province, but it is now an abundant species wherever there is suitable water. Not a marine form and virtually confined to inland waters, but occurs on these even when highly saline. Must occasionally

over-winter as it has been recorded from the south-west for every month of the year.

B, C 1, Ce 2, Cl 1, F, L, MB, P, PA, Rb, Rv 1, **S**, Sw 1, T, U, V, VW, W, Wo 1, Wo 2.

Chlidonias hybrida sclateri Math. & Iredale Whiskered Tern

Chlidonias leucopareia sclateri Mathews & Iredale, A manual of the birds of Australia, 1, 1921; 84. South Africa (restricted to Cape Peninsula).

Chlidonias hybrida sclateri; Vincent, 1952: 34; Alexander, 1955: 117; McLachlan & Liversidge, 1957: 162; Praed & Grant, 1962: 363; C.B.C., 1963: 35.

Status uncertain, partly owing to the difficulty of distinguishing it when in off-season plumage from the preceding species in the field. As a breeding bird, it appears to be irregular. Layard records that it bred at Zoetendalsvlei, Bredasdorp, but there are no recent records of it doing so. It has, however, bred in the Cold Bokkeveld at least since 1955; at Klavervlei, near Somerset West, since 1960; at Paarl and Philippi in 1966; and also at Verlorenvlei, Piketberg District. Records suggest it is a summer visitor only.

Ce 2, Cn, MB, **S**, T, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									2	11	20	2

Family **Pteroclidae**

Genus PTEROCLES Temm.

Pterocles namaqua (Gmel.) Namaqua Sandgrouse

a. *Pterocles namaqua namaqua* (Gmel.)

Tetrao Namaqua Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 754. Namaqua country (restricted to lower Orange River).

Pterocles namaqua namaqua; Vincent, 1952: 35 (in part).

Pterocles namaqua; Macdonald, 1957: 70; McLachlan & Liversidge, 1957: 163 (in part); Praed & Grant, 1962: 372 (in part).

Only in the north, where probably an off-season visitor.

K, N 3, N 4.

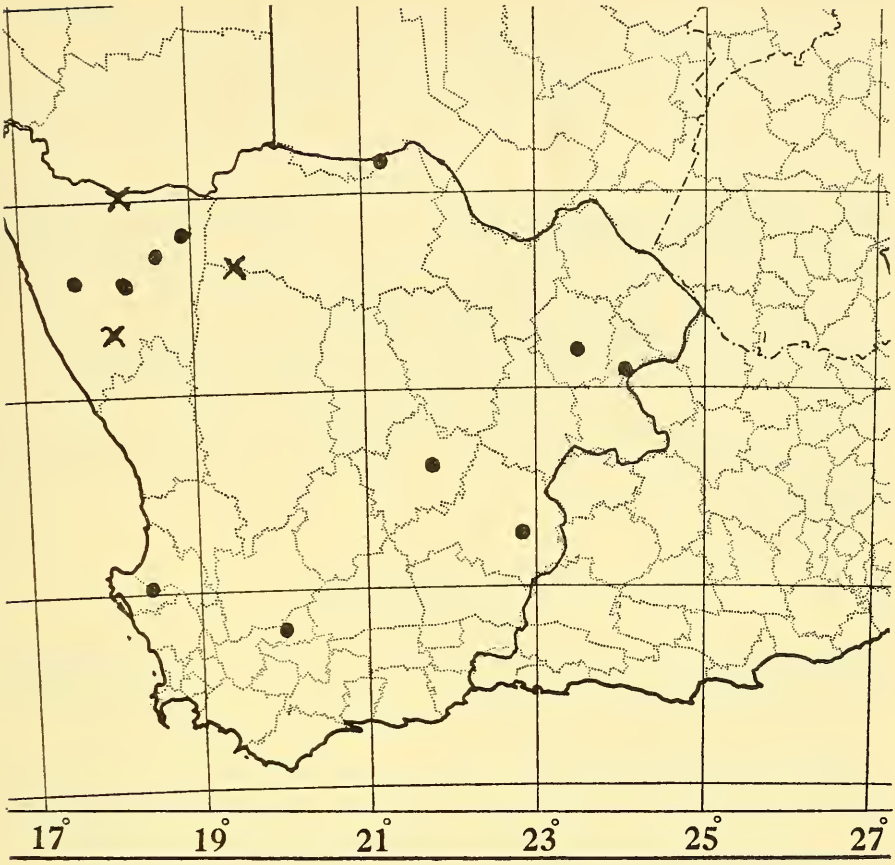
Breeding (both subspecies)

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo		2		1				1	1	2	1	1

b. *Pterocles namaqua furva* Clancey

Pterocles namaqua furva Clancey, Durban Mus. Novit., 5, 1959: 209. 10 m. N.E. of Vanwyksvlei; C.B.C., 1963: 36.

Pterocles namaqua namaqua; Vincent, 1952: 35 (in part).



Map 17. Distribution of subspecies of *Pterocles namaqua*. Crosses: *P. n. namaqua*; dots: *P. n. furva*.

Pterocles namaqua; McLachlan & Liversidge, 1957: 163 (in part); Praed & Grant, 1962: 372 (in part).

Widely distributed but subject to nomadic movements. Avoids the denser parts of the Winter Rainfall vegetation.

B, BW 1, **BW 2**, C 1, C 2, Ce 1, Ce 2, Cl 1, Cl 2, Cn, **D**, **F**, **H**, K, L, Lg. M, N 1, **N 3**, **N 4**, O, P, PA, Pr, R, Rb, **S**, Su 1, Sw 1, Sw 2, **T**, **U**, **V**, VW. W, Wo 1, Wo 2, **Wo 3**.

Pterocles burchelli burchelli W. L. Scl. Spotted Sandgrouse

Pterocles (Eremialector) burchelli W. L. Sclater, Bull. Br. Orn. Club, 42, 1922: 74. Near Griquatown (*nom. nov.* for *Tetrao* (*Pterocles*) *variegatus* Burchell, 1824, *nec Tetrao variegatus* Gmelin).

Pterocles burchelli burchelli; Vincent, 1952: 35; Macdonald, 1957: 71; McLachlan & Liversidge, 1957: 164.
Eremialector burchelli burchelli; Praed & Grant, 1962: 373.

A rare straggler from further north, recorded only from Hopetown, just within our limits.

H.

Pterocles bicinctus bicinctus Temm. Double-banded Sandgrouse

Pterocles bicinctus Temminck, Histoire naturelle générale des pigeons et des gallinacés, 3, 1815: 247. Leeu River, S.W.A. (M.-Praed & Grant, Bull. Br. Orn. Club, 75, 1955: 24); Macdonald, 1957: 71.
Pterocles bicinctus bicinctus; Vincent, 1952: 35; McLachlan & Liversidge, 1957: 165.
Eremialector bicinctus bicinctus; Praed & Grant, 1962: 375.

A rare straggler from further north, recorded only from Kuboos, in the Richtersveld.

N 2, N 3.

Family **Columbidae**

Genus COLUMBA L.

Columba guinea L. Rock Pigeon

See Clancey (1961*b*) on subspecies.

a. *Columba guinea phaeonotus* Gray

Columba phaeonotus G. R. Gray, List of the specimens of birds in the . . . British Museum, Columbae, 1856: 32. South Africa (restricted to Hout Bay, Cape Peninsula, Vincent, Ostrich, 20, 1949: 149).
Columba guinea phaeonotus; Vincent, 1952: 35; Macdonald, 1957: 72.
Columba guinea phaeonota; McLachlan & Liversidge, 1957: 166; Praed & Grant, 1962: 380; C.B.C., 1963: 36.

A common species in mountainous areas throughout the western Cape except where replaced by the next form.

B, BW 2, C 1, C 2, Ce 2, Ce 3, Cl 1, Cl 2, Ct, D, **F**, H, L, Lg, M, MB, **N 4**, O, P, PA, Pr, R, Rb, Rv 1, Rv 2, **S**, Su 1, Su 2, Sw 1, Sw 2, T, U, VW, W, Wo 1, Wo 2, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	8	3	2					1	5	14	2	5
Karoo											2	1

b. *Columba guinea bradfieldi* (Roberts)

Dialiptila phaeonota bradfieldi Roberts, Ann. Transv. Mus., 14, 1931: 239. Waterberg, S.W.A.

Columba guinea bradfieldi; Vincent, 1952: 35; McLachlan & Liversidge, 1957: 166; Praed & Grant, 1962: 380.

Replaces the preceding in the north-west, south to northern Vanrhynsdorp, Brandvlei and Vanwyksvlei.

C 1, Cn, K, **N 1**, N 2, N 3, **N 4**, **V**.

Columba arquatrix arquatrix Temm. Rameron Pigeon

Columba Arquatrix Temminck Les pigeons, 1809: 11, pl. 5. South Africa (= George).

Columba arquatrix arquatrix; Vincent, 1952: 36; McLachlan & Liversidge, 1957: 167; Praed & Grant, 1962: 381; C.B.C., 1963: 36.

A forest pigeon, confined to the south from the Cape Peninsula to Mossel Bay and Oudtshoorn and most numerous in the east.

Cl 1, L, MB, O, **Rv 1**, S, **Sw 1**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.			1						1			

Genus STREPTOPELIA Bp.

Streptopelia semitorquata semitorquata (Rüpp.) Red-eyed Dove

Columba semitorquata Rüppell, Neue Wirbelthiere, Vögel, 1837: 66, pl. 23, fig. 2. Taranta Mts., Ethiopia.

Streptopelia semitorquata semitorquata; Vincent, 1952: 36; C.B.C., 1963: 36.

Streptopelia semitorquata; McLachlan & Liversidge, 1957: 167; Praed & Grant, 1962: 385.

Confined to the vicinity of water from the Olifants valley eastwards, chiefly along tree-lined rivers. Early workers did not record it west of Swellendam, and it may well be one of the species which has extended its range westward during the present century; but it has been present along the Berg River at least since 1922 and Layard reports it from Porterville last century.

Ce 1, **Cl 1**, Ct, L, M, MB, O, Rb, Rv 1, **S**, Sw 1, Sw 2, T, V, Wo 1, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	3								3	5	2	1

Streptopelia capicola (Sund.) Cape Turtle Dove

Revision, Clancey (1960*b*).

a. *Streptopelia capicola capicola* (Sund.)

Columbam vinaceam var. *capicolam* Sundevall, K. svenska VetenskAkad. Handl. (n.s.), 2 (3), 1857: 54. Cape of Good Hope (Rondebosch, Cape Peninsula, Gyldenstolpe, Ibis, 1934: 264–292).

Streptopelia capicola capicola; Vincent, 1952: 36 (in part); Macdonald, 1957: 73 (in part); McLachlan & Liversidge, 1957: 169 (in part); Praed & Grant, 1962: 386; C.B.C., 1963: 36.

Abundant everywhere except where replaced by one of the other subspecies.

BW 1, BW 2, C 1, C 2, Ce 1, Ce 2, Ce 3, Cl 1, Cl 2, **Cn**, **Ct**, **F**, L, Lg, **M**, **MB**, N 1, N 3, O, **PA**, Rb, Rv 1, Rv 2, **S**, Su 1, Su 2, **Sw 1**, Sw 2, T, V, **VW**, W, Wo 1, Wo 2, Wo 3.

Breeding (all subspecies)

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	28	17	9	2	4	2	5	36	86	137	78	39
Karoo									1	1		2

b. *Streptopelia capicola damarensis* (Finsch & Hartl.)

Turtur damarensis Finsch & Hartlaub, Die Vögel von Ost-Afrika, 1870: 550. Damaraland (Otjimbingwe, Macdonald, 1957: 73).

Streptopelia capicola damarensis; Vincent, 1952: 36; Macdonald, 1957: 73; McLachlan & Liversidge, 1957: 169; Praed & Grant, 1962: 387 (in part).

Replaces the preceding in the Orange River valley.

K, N 1, **N 2**, N 3, N 4, **Pr**, U.

c. *Streptopelia capicola abunda* Clancey

Streptopelia capicola abunda Clancey, Durban Mus. Novit., 6, 1960: 21. Mooi River, Natal.

Streptopelia capicola capicola; Vincent, 1952: 36 (in part); Macdonald, 1957: 73 (in part); McLachlan & Liversidge, 1957: 169 (in part).

Streptopelia capicola damarensis; Praed & Grant, 1962 (in part).

Replaces *S.c. capicola* from Britstown east.

B, D, **H**, P, R.

Streptopelia senegalensis senegalensis (L.) Laughing Dove

Columba senegalensis Linnaeus, Systema naturae, ed. 12, 1, 1766: 283. Senegal.

Stigmatopelia senegalensis senegalensis; Vincent, 1952: 36; McLachlan & Liversidge, 1957: 169; Praed & Grant, 1962: 389.

Stigmatopelia senegalensis aequatorialis; Macdonald, 1957: 73.

Streptopelia senegalensis senegalensis; C.B.C., 1963: 36.

An abundant and widely distributed species, especially, but not exclusively, in the vicinity of human habitations and agriculture and in the drier areas.

All districts: **D, H, N 2, N 4, Rb, S, VW.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	9	5	2		2		4	11	20	33	19	10
Karoo		1						1	1	1	1	

Genus OENA Swains.

Oena capensis (L.) Namaqua Dove

Revision, Clancey (1966).

a. *Oena capensis capensis* (L.)

Columba capensis Linnaeus, Systema naturae, ed. 12, 1, 1766: 286. Cape of Good Hope (restricted unnecessarily to Cape Peninsula, Grant & M.-Praed, Bull. Br. Orn. Club, 56, 1936: 116).

Oena capensis capensis; Vincent, 1952: 36 (in part); McLachlan & Liversidge, 1957: 172 (in part); C.B.C., 1963: 36.

Oena capensis capensis; Praed & Grant, 1962: 390 (in part).

Found in the Winter Rainfall area and Little Karoo. There is some evidence that it has been extending its range southwards, as it was first recorded from Cape L'Agulhas in 1952 and there are still no records from the Mossel Bay District. It is possible that it is largely a summer visitor in the extreme south (Cape Peninsula southwards).

Ce 1, Ce 2, Cl 1, Cl 2, Ct, M, O, Rb, Rv 1, **S**, Sw 1, T, Wo 1, Wo 2, **Wo 3**.

b. *Oena capensis anonyma* Oberh.

Oena capensis anonyma Oberholser, Proc. U.S. natn. Mus., 28, 1905: 843. Plains east of Mt. Kilimanjaro.

Oena capensis capensis; Vincent, 1952: 36 (in part); Macdonald, 1957: 74; McLachlan & Liversidge, 1957: 172 (in part).

Oena capensis capensis; Praed & Grant, 1962: 390 (in part).

Replaces the preceding on the Karoo, where it is often numerous.

B, **BW 2**, C 1, C 2, Cn, D, **F**, **H**, K, Lg, N 1, N 2, **N 3**, **N 4**, P, PA, Pr, R, Su 1, U, **V**, VW, W.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1	1	1	1	4
Karoo									2	3	1	2

Genus TURTUR Bodd.

Turtur chalcospilos chalcospilos (Wagl.) Emerald-spotted Wood Dove

Columba Chalcospilos Wagler, Systema avium, Columba, 1827, sp. 83. Terra Caffrorum (= Eastern Cape Province).

Turtur chalcospilos chalcospilos; Vincent, 1952: 37; McLachlan & Liversidge, 1957: 173; C.B.C., 1963: 64.

Turtur chalcospilos; Praed & Grant, 1962: 393.

I keep the trinomial despite White (1949)—see Lawson (1961*b*).

Only recorded from the Winter Rainfall area, from Worcester to Mossel Bay, and rare.

Ct, MB, O, Rb, Rv 1, Sw 1, Wo 1.

Turtur tympanistria tympanistria (Temm. & Knip) Tambourine Dove

Columba tympanistria Temminck & Knip, Les pigeons, Columba, 1810: 80, pl. 36. South Africa (restricted to Gamtoos River, C.P.; M.-Praed & Grant, Bull. Br. Orn. Club, 56, 1936: 105).

Tympanistria tympanistria tympanistria; Vincent, 1952: 36; Praed & Grant, 1962: 391.

Turtur tympanistria; McLachlan & Liversidge, 1957: 172.

Only known from dense cover in the Oudtshoorn District but should be looked for in Mossel Bay and Calitzdorp. There is an unconfirmed sight record from Swellendam.

O.

Genus APLOPELIA Bp.

Aplopelia larvata larvata (Temm. & Knip) Cinnamon Dove

Columba larvata Temminck & Knip, Les pigeons, 1810: 71, pl. 31. Antinoquoi (= George).

Aplopelia larvata larvata; Vincent, 1952: 37; C.B.C., 1955: 30; McLachlan & Liversidge, 1957: 174; Praed & Grant, 1962: 394.

An uncommon forest species, recorded from the Cape Peninsula east.

M, MB, **S, Sw 1.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.											1	1

Family **Cuculidae**

Genus CUCULUS L.

Cuculus canorus canorus L. Cuckoo

Cuculus canorus Linnaeus, Systema naturae, ed. 10, 1758: 110. Europe (restricted to Sweden, Hartert., Die Vögel der paläarktischen Fauna, 2, 1913: 942–955).

Cuculus canorus canorus; Vincent, 1952: 37; McLachlan & Liversidge, 1957: 180; Praed & Grant, 1962: 402; C.B.C., 1963: 64.

A non-breeding Palaearctic migrant that occasionally penetrates as far south-west as the north-east corner of the area. Records from Gordon's Bay and Bredasdorp are accepted too.

P, R, S, VW.

Cuculus solitarius solitarius Steph. Red-chested Cuckoo

Cuculus solitarius Stephens, in Shaw's General zoology, 9, 1815: 84, pl. 18. Caffraria = Eastern Cape Province; Vincent, 1952: 37; McLachlan & Liversidge, 1957: 181; Praed & Grant, 1962: 404.

Cuculus solitarius solitarius; C.B.C., 1963: 37.

Essentially a breeding summer visitor to the Winter Rainfall area. One record from the main Karoo.

BW 2, Ce 1, Ce 2, Cl 1, Ct, **MB**, O, Rb, Rv 1, **S**, Sw 1, Wo 1, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									1	2	1	1

Cuculus cafer cafer Licht. Black Cuckoo

Cuculus cafer Lichtenstein, Catalogus rerum naturalium rarissimarum Hamburgi, 1793: 14. Eastern Cape Province (restricted to Cradock, Grant & M.-Praed, Bull Br. Orn. Club, 56, 1936: 116).

Cuculus cafer cafer; Vincent, 1952: 37; McLachlan & Liversidge, 1957: 182; C.B.C., 1963: 37.

Cuculus cafer; Praed & Grant, 1962: 405.

An occasional bird overshoots its normal summer haunts and reaches the Cape Peninsula.

S.

Genus CLAMATOR Kaup

Clamator glandarius choragium Clancey Great Spotted Cuckoo

Clamator glandarius choragium Clancey, Ann. Natal Mus., 12, 1951: 141. Hlobane, Natal; McLachlan & Liversidge, 1957: 183; C.B.C., 1963: 37.

Clamator glandarius; Vincent, 1952: 38 (in part); Macdonald, 1957: 74; Praed & Grant, 1962: 409 (in part).

A rare straggler from further east, recorded only from Philipstown and Saldanha Bay.

P, S.

Clamator jacobinus serratus (Sparrm.) Jacobin Cuckoo

Cuculus serratus Sparrmann, Museum Carlsonianum, 1, 1786: pl. 3. Cape of Good Hope.

Clamator jacobinus serratus; Vincent, 1952: 38; McLachlan & Liversidge, 1957: 184; Praed & Grant, 1962: 410; C.B.C., 1963: 37.

A not uncommon summer visitor to the eastern part of the Winter Rainfall area, becoming progressively rarer as one goes west. A few records from the eastern Karoo.

BW 2, Ct, Lg, MB, O, P, PA, **Rb**, Rv 1, **S**, Sw 1, **Wo 1.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.											3	

Clamator levaillanti (Swains.) Black Crested Cuckoo

Cuculus levaillanti Swainson, Zoological illustrations, 2nd ser., 1, 1829: pl. 13. Senegal.

Clamator levaillanti; Vincent, 1952: 38; C.B.C., 1963: 64.
Clamator cafer; Macdonald, 1957: 74.
Clamator levaillantii; McLachlan & Liversidge, 1957: 183; Praed & Grant, 1962: 411.

A rare straggler to the south-east from further east.
O, Sw 1.

Genus CHRYSOCOCCYX Boie

Chrysococcyx cupreus sharpei v. Som. Emerald Cuckoo

Chrysococcyx cupreus sharpei van Someren, Novit. zool., 29, 1922: 53. Ifafa River, Natal; Vincent, 1952: 38; McLachlan & Liversidge, 1957: 185: C.B.C., 1963: 64.
Chrysococcyx cupreus intermedius; Praed & Grant, 1962: 412.

Known only by a specimen from Durbanville in the South African Museum.
S.

Chrysococcyx caprius (Bodd.) Didric Cuckoo

Cuculus caprius Boddaert, Table des planches enluminéez . . . , 1783: 40, no. 657. Cape of Good Hope.
Chrysococcyx caprius; Vincent, 1952: 38; McLachlan & Liversidge, 1957: 185; Praed & Grant, 1962: 414; C.B.C., 1963: 37.
Lampromorpha caprius; Macdonald, 1957: 75.

Rare in the extreme south-west, becoming commoner further north and east; and a common bird on the Karoo as a breeding summer visitor.

BW 2, BW 3, **Cn**, Ct, **H**, K, L, **Lg**, M, MB, N 1, N 3, N 4, O, P, **PA**, **Rb**, Rv 1, Rv 2, **S**, Su 1, Sw 1, U, V, VW, Wo 1, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.											1	
Karoo											1	

Chrysococcyx klaas klaas (Steph.) Klaas's Cuckoo

Cuculus Klaas Stephens, in Shaw's General zoology, 9, 1815: 128. Senegal (corrected to Platte River, Cape Province).
Chrysococcyx klaas klaas; Vincent, 1952: 38; McLachlan & Liversidge, 1957: 185; Praed & Grant, 1962: 415; C.B.C., 1963: 38.

Confined to the Winter Rainfall area and the similar vegetation of the Little Karoo, chiefly in the forest patches. Apparently resident and quite common.

Ce 1, Cl 1, Ct, M, MB, O, PA, Rb, Rv 1, **S**, **Sw 1**, Wo 1, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										3	1	
Karoo										1		

Genus CENTROPUS Illig.

Centropus superciliosus burchellii Swains. White-browed Coucal

Centropus Burchellii Swainson, Animals in menageries, 1838: 321. South Africa (restricted to Cape Province).

Centropus superciliosus burchellii; Vincent, 1952: 39; McLachlan & Liversidge, 1957: 190; Praed & Grant, 1962: 421; C.B.C., 1963: 38.

Confined to reed-beds and thick cover near water, where it is widely distributed in the Winter Rainfall area. No records from the Karoo.

M, MB, O, Rb, Rv 1, **S**, **Sw 1**, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.		1								5		

Family **Musophagidae**

Genus TAURACO Kluk

Tauraco corythaix corythaix (Wagl.) Knysna Lourie

Spelectos Corythaix Wagler, Systema avium, sheet 8, Spelectos sp. 1, 1827. No locality (= Knysna).

Tauraco corythaix corythaix; Vincent, 1952: 39; Praed & Grant, 1962: 429.

Turacus corythaix corythaix; McLachlan & Liversidge, 1957: 178.

A forest species which just enters our area in the valleys of the Great and Little Brak rivers, Mossel Bay.

MB.

Family **Psittacidae**

Genus AGAPORNIS Selby

Agapornis roseicollis roseicollis (Vieill.) Rosy-faced Lovebird

Psittacus roseicollis Vieillot, Nouvelle dictionnaire d'histoire naturelle, 25, 1817: 377. Interior of Cape of Good Hope (restricted to Goodhouse, Cape Province, Macdonald, 1957: 77).

Agapornis roseicollis; Vincent, 1952: 40; Macdonald, 1957: 76.

Agapornis roseicollis roseicollis; McLachlan & Liversidge, 1957: 177; Praed & Grant, 1962: 444.

A Damaraland species that just enters our area along the Orange River.

H, K, N 4, U.

Genus MELOPSITTACUS Gould

[**Melopsittacus undulatus** (Shaw) Budgerigar

Psittacus undulatus Shaw, The naturalist's miscellany, 16, 1805: pl. 673. New Holland (= New South Wales).

Melopsittacus undulatus; C.B.C., 1963: 64.

Escapes from captivity are not uncommon, but the species has not established itself, apparently largely on account of its susceptibility to predation by sparrowhawks.]

Family **Strigidae**

Genus ASIO Briss.

Asio capensis capensis (Smith) Marsh Owl

Otus Capensis A. Smith, S. Afr. Q.J., 1834: 316. South Africa (restricted to Waaiplaats, Martindale, Cape Province, Vincent, Ostrich, 20, 1949: 149).

Asio capensis capensis; Vincent, 1952: 45; McLachlan & Liversidge, 1957: 192; Praed & Grant, 1962: 507; C.B.C., 1963: 39.

A rare and local species of wet grassland.

N 1, Rb, S, VW.

Genus CICCABA Wagl.

Ciccaba woodfordii woodfordii (Smith) Wood Owl

Noctua Woodfordii A. Smith, S. Afr. Q.J., 1834: 312. South Africa (restricted to Knysna; Grant & M.-Praed, Bull Br. Orn. Club, 57, 1937: 138).

Ciccaba woodfordii woodfordii; Vincent, 1952: 45; McLachlan & Liversidge, 1957: 192; Praed & Grant, 1962: 508; C.B.C., 1963: 39.

A forest-haunting owl about which little is known and which is probably more generally distributed than the meagre records indicate.

S, Sw 1, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										1		

Genus OTUS Penn.

Otus scops senegalensis (Swains.) Scops Owl

Scops Senegalensis Swainson, Birds of western Africa, 8, 1837: 127. Gambia.

Otus scops latipennis; Vincent, 1952: 45; C.B.C., 1963: 64.

Otus scops senegalensis; McLachlan & Liversidge, 1957: 193; Praed & Grant, 1962: 509.

Has occurred at Cape Town and Swellendam in the past but no recent records and status unknown.

S, **Sw 1**.

Otus leucotis granti (Kollibay) White-faced Owlet

Pisorhina leucotis granti Kollibay, Orn. Mber., 18, 1910: 148. South West Africa (restricted to Windhoek, Macdonald, 1957: 84) (*nom. nov.* for *Scops erlangeri* O.-Grant 1906, not *Pisorhina scops erlangeri* Tschusi 1904).

Otus leucotis granti; Vincent, 1952: 46; Macdonald, 1957: 84; McLachlan & Liversidge, 1957: 193; Praed & Grant, 1962: 510.

Only known from the north-east.
H, Pr, R.

Genus GLAUCIDIUM Boie

Glaucidium perlatum licua (Licht.) Pearl-spotted Owlet

Strix licua Lichtenstein, Verzeichniss einer Sammlung von Säugethieren und Vögeln . . . Kaffernlande, 1842: 12. Vaal–Orange confluence.

Glaucidium perlata; Vincent, 1952: 46.

Glaucidium perlatum licua; McLachlan & Liversidge, 1957: 194; Praed & Grant, 1962: 511.

Only known from the north-east.
H, Pr, **U**.

Genus BUBO Duméril

Bubo capensis capensis Smith Cape Eagle-Owl

Bubo capensis A. Smith, S. Afr. Q.J., 1834: 317. South Africa (restricted to Cape Town, A. Smith, Illustrations of the zoology of South Africa, Aves, 1849: pl. 70).

Bubo capensis; Vincent, 1952: 46; McLachlan & Liversidge, 1957: 195; Praed & Grant, 1962: 513; C.B.C., 1963: 39.

A rare mountain species, though perhaps commoner than usually believed (no less than five specimens from the Cape Town–Somerset West area in the South African Museum) owing to confusion with the next species.
O, R, **S**, Sw 1.

Bubo africanus africanus (Temm.) Spotted Eagle-Owl

Strix africana Temminck, Nouveau recueil de planches coloriées d'oiseaux, 9, 1823: pl. 50. Cape of Good Hope.

Bubo africana africana; Vincent, 1952: 46; Macdonald, 1957: 84; C.B.C., 1963: 39.

Bubo africanus africanus; McLachlan & Liversidge, 1957: 195; Praed & Grant, 1962: 513.

Widely distributed and common in both the Winter Rainfall area and the Karoo.

BW 1, BW 2, C 2, **Ce 1**, **Cl 1**, Cn, Ct, D, **H**, K, L, **Lg**, M, MB, **N 1**, N 2, N 3, N 4, O, P, PA, Pr, R, Rb, **S**, Su 2, Sw 1, T, U, V, **VW**, W, Wo 1, **Wo 2**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.					2	1		1	13	16	5	
Karoo								3	1	1		

Bubo lacteus (Temm.) Milky Eagle-Owl

Strix lactea Temminck, Nouveau recueil de planches coloriées d'oiseaux, 1, 1824: 4. Senegal.

Bubo lactea; Vincent, 1952: 46; C.B.C., 1963: 64.
Bubo lacteus; McLachlan & Liversidge, 1957: 195; Praed & Grant, 1962: 514.

As for *B. capensis*, but there are no records for the Winter Rainfall area except a single old specimen from Somerset West in the South African Museum.

BW 2, D, O, P, PA, **S**.

Genus SCOTOPELIA Bp.

[**Scotopelia peli** (Bp.) Fishing Owl

Strix peli Bonaparte, Conspectus generum avium, 1, 1850: 44. Ashanti.
Scotopelia peli; Vincent, 1952: 46; McLachlan & Liversidge, 1957: 196; Praed & Grant, 1962: 515; C.B.C., 1963: 65.

A sight record by the late Dr. E. L. Gill from the Cape of Good Hope Nature Reserve, 1953, needs corroboration.]

Family **Tytonidae**

Genus TYTO Bilbb.

Tyto alba affinis (Blyth) Barn Owl

Strix affinis Blyth, Ibis, 1862: 388. Cape of Good Hope (unnecessarily changed to Cape Town, Grant & M.-Praed, Bull. Br. Orn. Club, 57, 1937: 157).
Tyto alba affinis; Vincent, 1952: 45; McLachlan & Liversidge, 1957: 191; Praed & Grant, 1962: 505; C.B.C., 1963: 39.

Widely distributed in Winter Rainfall and Karoo areas, but not particularly common and there are big gaps, though most of these are probably due to imperfect knowledge.

B, BW 2, Cl 1, Cn, M, MB, **N 1**, N 3, O, P, Pr, R, **S**, Sw 1, U, VW, W, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.			1					1	5	2	1	1

Tyto capensis capensis (Smith) Grass Owl

Strix Capensis A. Smith, S. Afr. Q.J., 1834: 317. South Africa (restricted to Cape Town, Grant & M.-Praed, Bull. Br. Orn. Club, 57, 1937: 158).
Tyto capensis capensis; Vincent, 1952: 45; Praed & Grant, 1962: 506; C.B.C., 1963: 39.
Tyto capensis; McLachlan & Liversidge, 1957: 191.

Roberts (1936) maintained that the name *capensis* could not be used for the Grass Owl because *Strix capensis* Smith 1834 is antedated by *Strix capensis* Daudin 1800. Daudin's use of the name is as a variety of his *Strix bubo* and appears as *Bubo capensis*. Daudin did not use trinomials in the modern sense and until a ruling is obtained from the International Commission on Zoological Nomenclature, I consider it inadvisable to alter long-established names.

An inhabitant of wet grassland, recorded only, and rarely, from the Winter Rainfall area.

S.

Family **Caprimulgidae**

Genus CAPRIMULGUS L.

Caprimulgus europaeus europaeus L. European Nightjar

Caprimulgus europaeus Linnaeus, Systema naturae, ed. 10, 1758: 193. Europe & America (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 2, 1912: 846–856).

Caprimulgus europaeus europaeus; Vincent, 1952: 46; McLachlan & Liversidge, 1957: 197; Praed & Grant, 1962: 518; C.B.C., 1963: 65.

Records of this species based on calling are open to suspicion, most of them being due to confusion with *C. rufigena*. The present bird is, however, represented by specimens in the South African Museum from the Cape Peninsula (3) and Kareekloof and is recorded from Swellendam (a most unlikely place for *C. rufigena*) by Layard.

H, S, Sw 1.

Caprimulgus rufigena Smith Rufous-cheeked Nightjar

a. *Caprimulgus rufigena rufigena* Smith.

Caprimulgus rufigena A. Smith, Illustrations of the zoology of South Africa, Aves, 1845: pl. 100. Eastern Cape Province, McLachlan & Liversidge, 1957: 197.

Caprimulgus rufigena rufigena; Vincent, 1952: 47; Macdonald, 1957: 85; Praed & Grant, 1962: 522; C.B.C., 1963: 65.

The common nightjar of the Karoo, where it is a breeding summer visitor which reaches as far south as De Hoop, Bredasdorp.

B, BW 2, Cn, D, **F, H, K**, Lg, N 3, P, **PA**, R, Rb, Rv 2, S, Su 2, **U, V, VW**, W, **Wo 1.**

b. *Caprimulgus rufigena damarensis* Strickl.

Caprimulgus damarensis Strickland, Jardine's Contr. Orn., 1852: 123. Damaraland.

Replaces the preceding in parts of Bushmanland and along the lower Orange River.

K, N 1, N 2, N 4, M.

Caprimulgus pectoralis pectoralis Cuv. Fiery-necked Nightjar

Caprimulgus pectoralis Cuvier, Le règne animal, 1, 1817: 376. Africa (=George).

Caprimulgus pectoralis pectoralis; Vincent, 1952: 47; McLachlan & Liversidge, 1957: 198; Praed & Grant, 1962: 519; C.B.C., 1963: 40.

The common nightjar of the Winter Rainfall area where it is resident. Karoo records are few and mostly suspect, but it certainly occurs in Namaqualand and the records from Klaarstroom, Carnarvon and Melton Wold are accepted.

BW 2, Cl 1, Cn, Lg, MB, N 1, N 3, O, PA, Rb, **S**, **Sw 1**, Sw 2, VW, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1	7	4		

Caprimulgus tristigma lentiginosus Smith — Freckled Nightjar

Caprimulgus lentiginosus A. Smith, Illustrations of the zoology of South Africa, Aves, 1845: pl. 101. Great Namaqualand.

Caprimulgus tristigma lentiginosus; Vincent, 1952: 47; Macdonald, 1957: 85; McLachlan & Liversidge, 1957: 198; Praed & Grant, 1962: 523; C.B.C., 1963: 65.

Confined to rocky hills and only recorded from the west, from Grootderm on the Orange River to the Cold Bokkeveld and Swellendam.

C 2, **Ce 2**, M, N 1, N 2, N 3, **N 4**, S, Sw 1, **V**.

[**Caprimulgus fossii** Hartl. — Mozambique Nightjar

Caprimulgus fossii Hartlaub, System der Ornithologie Westafrica's, 1857: 23. Gabon; McLachlan & Liversidge, 1957: 199; Praed & Grant, 1962: 525.

Caprimulgus fossii mossambicus; Vincent, 1952: 47.

I can find no evidence to support the view of Praed & Grant (1962) that this species occurs in the Cape Province.]

Genus MACRODIPTERYX Swains.

[**Macrodipteryx vexillarius** (Gould) — Pennant-winged Nightjar

Semeiophorus vexillarius Gould, Icones avium, 2, 1838: pl. 3. Islands between Bourbon & Madagascar (corrected to Sierra Leone, Sclater & Praed, Ibis, 1919: 659, footnote); Praed & Grant, 1962: 326.

Macrodipteryx vexillarius; Vincent, 1952: 47; McLachlan & Liversidge, 1957: 200.

No records; but may occur occasionally in the north-east.]

Family **Coraciidae**

Genus CORACIAS L.

Coracias garrulus garrulus L. — European Roller

Coracias garrulus Linnaeus, Systema naturae, ed. 10, 1758: 107. Europe (restricted to Sweden; Hartert, Die Vögel der paläarktischen Fauna, 1903–23).

Coracias garrulus garrulus; Vincent, 1952: 41; McLachlan & Liversidge, 1957: 220; Praed & Grant, 1962: 447; C.B.C., 1963: 38.

An irregular, non-breeding, summer visitor from the Palaearctic, which sometimes penetrates as far south as Cape Town and is more regular in the extreme north.

Ce 1, Cn, N 3, O, P, S.

Coracias caudata caudata L. Mozelikatse's Roller

Coracias caudata Linnaeus, Systema naturae, ed. 12, 1, 1766: 160. Angola.
Coracias caudata caudata; Vincent, 1952: 41; Macdonald, 1957: 77; McLachlan & Liversidge, 1957: 221; Praed & Grant, 1962: 449.

A straggler from further north, recorded from Springbok.

N 3.

Family **Alcedinidae**

Genus CERYLE Boie

Ceryle rudis rudis (L.) Pied Kingfisher

Alcedo rudis Linnaeus, Systema naturae, ed. 10, 1758: 116. Egypt (Hartert, Novit. zool., 17, 1910: 216).
Ceryle rudis rudis; Vincent, 1952: 41; McLachlan & Liversidge, 1957: 210; Praed & Grant, 1962: 455; C.B.C., 1963: 38.
Ceryle rudis; Macdonald, 1957: 77.

The commonest kingfisher, occurring even on the Karoo where conditions are suitable, but more frequent in the Winter Rainfall area. Found on all types of water, including the sea-coast, except those heavily charged with silt.

Ce 2, Cl 1, Cn, Ct, D, L, M, **MB**, N 1, N 2, N 3, O, P, Rb, Rv 1, Rv 2, **S**, Sw 1, T, **U**, V, Wo 1, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1		1	1	

Ceryle maxima maxima (Pall.) Giant Kingfisher

Alcedo maxima Pallas, Spicilegia zoologica, 6, 1769: 14. Cape of Good Hope.
Megaceryle maxima maxima; Vincent, 1952: 41; McLachlan & Liversidge, 1957: 211; Praed & Grant, 1962: 456; C.B.C., 1963.

Not uncommon in the Winter Rainfall area, especially along tree-lined rivers; but hardly penetrates into the Karoo, though there are records from Klaarstroom and Philipstown. Occasional on the sea-coast and one record from the Orange River.

C 2, Ce 2, Cl 1, Ct, M, MB, O, P, PA, Rb, Rv 1, **S**, Sw 1, T, U, **Wo 1**, **Wo 2**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									1	1		

Genus ALCEDO L.

Alcedo atthis semitorquata Swains. Half-collared Kingfisher

Alcedo semitorquata Swainson, Zoological illustrations, 3, 1823: pl. 151. Great Fish River, Cape Province; Vincent, 1952: 41; Praed & Grant, 1962: 457.

Alcedo semitorquata semitorquata; McLachlan & Liversidge, 1957: 211; C.B.C., 1963: 38.

I follow Meinertzhagen (1951) and others on regarding *semitorquata* as a race of *atthis*.

Rare; and chiefly in the Winter Rainfall area.

Cl 1, M, MB, O, P, **S**, Sw 1, Wo 1.

Alcedo cristata cristata Pall. Malachite Kingfisher

Alcedo cristata Pallas, in Vroeg's Catalogus . . . vogelen . . . dieren. Adumbratiuncula, 1764: no. 55, pl. 1. Cape of Good Hope.

Corythornis cristata cristata; Vincent, 1952: 42; McLachlan & Liversidge, 1957: 211; Praed & Grant, 1962: 458; C.B.C., 1963: 38.

Corythornis cristata; Macdonald, 1957: 78.

On the invalidity of *A.c. galerita* P. L. S. Müller and *A.c. longirostris* (Roberts), see Winterbottom (1961*c*).

Next to *Ceryle rudis*, the commonest kingfisher in the Winter Rainfall area and, like it, with a wide habitat tolerance, though rare on the sea-shore. Much more often recorded from the Karoo than any of the other kingfishers.

BW 2, C 2, Cl 1, Cn, Ct, K, M, MB, N 1, N 3, **O**, P, Rb, **S**, Su 2, Sw 1, Sw 2, T, **U**, V, Wo 1, **Wo 2**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.		1						1	1	2	4	1
Karoo									1			

Genus HALCYON Swains.

Halcyon albiventris albiventris (Scop.) Brown-hooded Kingfisher

Alcedo albiventris Scopoli, Deliciae florae et faunae insubricae, 2, 1786: 90. New Guinea (corrected to Cape of Good Hope).

Halcyon albiventris albiventris; Vincent, 1952: 42; McLachlan & Liversidge, 1957: 214; Praed & Grant, 1962: 464; C.B.C., 1963: 38.

A breeding summer visitor to the eastern part of the Winter Rainfall area, reaching its western limit about Robertson, though stragglers reach the Cape Peninsula.

Ct, L, M, MB, **O**, P, PA, Rb, **Rv 1**, S, Sw 1.

Halcyon chelicuti chelicuti (Stanl.) Striped Kingfisher

Alaudo chelicuti Stanley, in Salt's A voyage to Abyssinia, App., 1814: 56. Chelicut, Ethiopia.

Halcyon chelicuti chelicuti; Vincent, 1952: 42; McLachlan & Liversidge, 1957: 214; Praed & Grant, 1962: 467.

Halcyon chelicuti; Macdonald, 1957: 78.

A tropical species recorded from our area only at Upington.

U.

Family **Meropidae**

Genus MEROPS L.

On the limits of this genus, see Winterbottom (1959*d*).

Merops apiaster L. European Bee-eater

Merops Apiaster Linnaeus, Systema naturae, ed. 10, 1758: 117. South Europe; Vincent, 1952: 42; McLachlan & Liversidge, 1957: 214; Praed & Grant, 1962: 469; C.B.C., 1963: 39.

A common, breeding, summer visitor to the Karoo and the northern part of the Winter Rainfall area, reaching its southern limit, except for occasional stragglers, about Darling and Robertson. In the east of the area, not known south of the Little Karoo. It is not known where our breeding birds, which disappear in January, spend the rest of the year; nor whether birds of the Palaearctic breeding population reach our limits.

BW 2, BW 3, C 1, C 2, Ce 2, Ce 3, **Cl 1**, Cl 2, Cn, Ct, D, **F**, H, K, L, Lg, M, MB, N 1, **N 3**, O, P, PA, R, Rb, **S**, Su 1, Su 2, **Sw 2**, U, V, VW, W, Wo 1, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1	2								3	5	1
Karoo											13	

Merops superciliosus persicus Pall. Blue-cheeked Bee-eater

Merops persica Pallas, Reise durch verschiedene Provinzen des russischen Reichs, 2, 1773: 708. Shores of Caspian Sea; C.B.C., 1963: 64.

Merops persica persica; Vincent, 1952: 42.

Merops superciliosus persicus; McLachlan & Liversidge, 1957: 215; Praed & Grant, 1962: 472.

An occasional straggler from the Palaearctic migrants which normally spend their off-season further north and east. Recorded only from Oudtshoorn and the Cape Flats (specimen in the South African Museum).

O, **S**.

Merops nubicus nubicoides Des Murs & Puch. Carmine Bee-eater

Merops nubicoides Des Murs & Pucheran, Revue Zool., 1846: 243. Port Natal (corrected to River Ouri, between 24° and 25°S., S.W. Transvaal, Sclater, Systema avium ethiopicarum, 1, 1924: 220); Vincent, 1952: 43; McLachlan & Liversidge, 1957: 215; Praed & Grant, 1962: 472; C.B.C., 1963: 64.

Recorded by Layard from Genadendal—a straggler from the north-east.
S.

Merops pusillus meridionalis (Sharpe) Little Bee-eater

Melittophagus meridionalis Sharpe, Catalogue of the birds in the British Museum, 17, 1892: 45, pl. 1, fig. 4. South-eastern Africa (type from Pinetown, Natal).
Melittophagus pusillus meridionalis; Vincent, 1952: 43; McLachlan & Liversidge, 1957: 217; Praed & Grant, 1962: 475.

A tropical species recorded within our limits only from Aughrabies Falls on the Orange River.
K.

Merops hirundineus hirundineus Licht. Swallow-tailed Bee-eater

Merops hirundineus Lichtenstein, Catalogus rerum naturalium rarissimarum Hamburgi, 1793: 21. No locality (Orange River, Cape Province, ex Levaillant).
Melittophagus hirundineus hirundineus; Vincent, 1952: 43.
Dicrocercus hirundineus hirundineus; Macdonald, 1957: 79; McLachlan & Liversidge, 1957: 217; Praed & Grant, 1962: 479.

The Orange River marks the limit of the normal range of this species, but it occasionally wanders further south and two were seen at Vosburg, in the north of the Victoria West District, in 1959. Common along the Orange River. A record from Oudtshoorn needs confirmation.
H, K, N 1, **N 2**, N 3, **N 4**, P, **Pr**, **U**, VW.

Family **Bucerotidae**

Genus TOCKUS Less.

[**Tockus nasutus epirhinus** (Sund.) Grey Hornbill

Buceros epirhinus Sundevall, Öfvers, K. VetenskAkad. Förh. for 1850, 1851: 108. Caffraria superior (Upper Crocodile River, S.W. of Pretoria, Gyldenstolpe, Ibis, 1934: 290).
Lophoceros nasutus epirhinus; Vincent, 1952: 43; McLachlan & Liversidge, 1957: 226.
Tockus nasutus epirhinus; Praed & Grant, 1962: 487.

May occur as a straggler in the extreme north-east.]

[**Tockus flavirostris leucomelas** (Licht.) Yellow-billed Hornbill

Buceros leucomelas Lichtenstein, Verzeichniss einer Sammlung von Säugethiere und Vögeln . . . Kaffernlande, 1842: 17. Kaffirland (Vaal R., between Bloemhof and Commando Drift).

Lophoceros flavirostris leucomelas; Vincent, 1952: 43; McLachlan & Liversidge, 1957: 227.

Tockus flavirostris leucomelas; Macdonald, 1957: 81; Praed & Grant, 1962: 490.

May occur as a straggler in the extreme north-east.]

Family **Upupidae**

Genus UPUPA L.

Upupa epops minor Shaw Hoopoe

Upupa minor Shaw, General zoology, 8, 1812: 139. Cape of Good Hope.

Upupa africana; Vincent, 1952: 44; Macdonald, 1957: 83: McLachlan & Liversidge, 1957: 222; Praed & Grant, 1962: 498; C.B.C., 1963: 39.

For use of the name *minor*, see Lawson (1962*b*).

Some birds are certainly resident in the south; elsewhere it may be only a breeding summer visitor.

BW 2, C 2, **Ce 1,** Ce 2, Cl 1, Cn, **Ct**, **H**, K, L, Lg, **N**, MB, N 1, **N 3**, N 4, O, P, PA, Rb, **Rv 1**, Rv 2, **S**, Su 2, Sw 1, Sw 2, T, U, V, VW, Wo 1, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.			1					10	8	15	8	

Genus RHINOPOMASTUS Smith

Rhinopomastus cyanomelas cyanomelas (Vieill.) Scimitarbill

Falcinellus cyanomelas Vieillot, Nouvelle dictionnaire d'histoire naturelle, 28, 1819: 165. Namaqualand (restricted to Goodhouse, Cape Province, Macdonald, 1957: 84).

Rhinopomastus cyanomelas cyanomelas; Vincent, 1952: 45; Macdonald, 1957: 83; McLachlan & Liversidge, 1957: 224; Praed & Grant, 1962: 503; C.B.C., 1963: 64.

Recorded only along the Orange River, where it inhabits the fringing bush from Philipstown to the mouth; from a rocky, thorn-filled gorge near Pofadder (Clancey, 1963*a*); and from the Hartebeest River at Kenhardt.

H, **K**, N 1, N 2, N 4, P, U.

Family **Coliidae**

Genus COLIUS Briss.

Colius striatus striatus Gmel. Speckled Coly

Colius striatus Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 843. Cape of Good Hope.

Colius striatus striatus; Vincent, 1952: 47; McLachlan & Liversidge, 1957: 208; Praed & Grant, 1962: 528; C.B.C., 1963: 40.

Revision, Clancey (1957*a*).

Occurs, in places abundantly, in the Winter Rainfall area and Little Karoo. There are a few records, some of them suspect, from as far north as Papendorp, near the mouth of the Olifants River, and Beaufort West; and the species appears again on the Orange River above the Vaal confluence.

BW 2, Ce 1, Ce 3, Cl 1, **Ct**, L, **M**, MB, **O**, P, **PA**, **Rb**, **Rv 1**, **S**, **Sw 1**, Sw 2, T, V, W, **Wo 1**, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.		1					1	5	6	5	4	

Map 18. Distribution of subspecies of *Colius colius*. Dots: *C. c. colius*; crosses: *C. c. damarensis*.

Colius colius (L.) Cape Coly

a. *Colius colius colius* (L.)

Loxia colius Linnaeus, Systema naturae, ed. 12, 1, 1766: 301. Cape of Good Hope.

Colius colius colius; Vincent, 1952: 48; C.B.C., 1963: 40.

Colius colius; Macdonald, 1957: 87 (in part); McLachlan & Liversidge, 1957: 208 (in part); Praed & Grant, 1962: 531 (in part).

Abundant in the Winter Rainfall area, except the mountains, and on the southern Karoo.

BW 1, BW 2, BW 3, **C 2**, Ce 1, Ce 2, Ce 3, **Cl 1**, **Ct**, L, Lg, **M**, MB, **O**, P, **PA**, **Rb**, **Rv 1**, Rv 2, **S**, Su 1, **Su 2**, Sw 1, Sw 2, V, **VW**, Wo 1, **Wo 2**, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.		1	1	1	1				5	10		1
Karoo						1		3				

b. *Colius colius damarensis* Rchw.

Colius colius damarensis Reichenow, J. Orn., Lpz., 47, 1899: 418. Damaraland; Vincent, 1952: 48.

Colius colius; Macdonald, 1957: 87 (in part); McLachlan & Liversidge, 1957: 208 (in part); Praed & Grant, 1962: 531 (in part).

Replaces the preceding in the north.

B, C 1, **Cn**, **D**, **H**, **K**, N 1, **N 2**, **N 3**, **N 4**, **P**, **Pr**, R, **U**, **VW**, **W**.

Colius indicus indicus Lath. Red-faced Coly

Colius indicus Latham, Index ornithologicus, 1, 1790: 370. India (corrected to Gamtoos River, Cape Province, W. L. Sclater, Systema avium ethiopicarum, 1, 1924: 267); Macdonald, 1957: 87.

Colius indicus indicus; Vincent, 1952: 48; Praed & Grant, 1962: 532; C.B.C., 1963: 40.

Urocolius indicus indicus; McLachlan & Liversidge, 1957: 208.

Generally distributed in the Winter Rainfall area, the eastern Karoo and the Orange River valley, but there are no records from a considerable area of the north-west from Sutherland and Fraserburg to Port Nolloth and Steinkopf. Northern birds are intergrades with *C.i. transvaalensis* (Roberts).

B, BW 1, BW 2, C 2, Ce 3, Cl 1, Cn, **Ct**, **H**, K, L, Lg, M, MB, **N 1**, N 2, N 3, N 4, O, P, **PA**, Pr, R, **Rb**, Rv 1, **S**, **Su 2**, Sw 1, Sw 2, **U**, V, **VW**, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									2	3	2	1
Karoo										1		

Family **Trogonidae**

Genus APALODERMA Swains.

[**Apaloderma narina narina** (Steph.) Narina Trogon

Trogon narina Stephens, in Shaw's General zoology, 9, 1815: 14. Anteniquoi = George District.

Apaloderma narina narina; Vincent, 1952: 48; McLachlan & Liversidge, 1957: 209; Praed & Grant, 1962: 534.

A circumstantial sight-record from Orchard, Worcester District, was reported to me by Mr. H. L. Hare. Trogons do wander at times, but the record needs confirmation.]

Family **Apodidae**

Arrangement and nomenclature in this family follow Lack (1956).

Genus APUS Scop.

Apus apus apus (L.) European Swift

Hirundo Apus Linnaeus, Systema naturae, ed. 10, 1758: 192. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 3, 1921).

Apus apus apus; Vincent 1952: 52; McLachlan & Liversidge, 1957: 201; Praed & Grant, 1962: 590.

Micropus apus; Macdonald, 1957: 85.

I do not understand Macdonald's (1957) use of *Micropus* for this species and *Apus* for the others.

A Palaearctic migrant, recorded only from the extreme north-east and north-west. Owing to the difficulty of distinguishing it in the field from *A. barbatus*, however, this may be misleading and the species may range further south than records at present suggest.

H, N 1, U.

Apus barbatus barbatus (P. L. Sclater) Black Swift

Cypselus barbatus P. L. Sclater, Proc. zool. Soc. Lond., 1865: 599. South Africa (restricted to Cape Province, Grant & M.-Praed, Bull. Br. Orn. Club, 58, 1937: 49).

Apus barbatus barbatus; Vincent, 1952: 52; McLachlan & Liversidge, 1957: 201; C.B.C., 1963: 41.

Apus barbatus; Macdonald, 1957: 86.

Apus apus barbatus; Praed & Grant, 1962: 591.

Widely distributed, especially in the Winter Rainfall area, as a breeding summer visitor; occasional individuals and flocks in winter.

B, BW 2, Ce 1, Cl 1, Cn, D, H, L, M, MB, N 1, O, P, PA, Pr, **Rb**, Rv 1, Rv 2, **S**, Sw 1, T, U, V, VW, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.												1

Apus melba africanus (Temm.) Alpine Swift

Cypselus alpinus africanus Temminck, Manuel d'ornithologie, 1815: 270. South Africa.

Apus melba africanus; Vincent, 1952: 52; Macdonald, 1957: 86; Praed & Grant, 1962: 594; C.B.C., 1963: 41.

Apus melba; McLachlan & Liversidge, 1957: 205.

As for the preceding but even more widely distributed.

BW 2, C 2, Ce 1, Ce 2, Ce 3, Cl 1, Cn, Ct, H, K, L, Lg, M, MB, N 1, N 2, N 3, O, P, PA, Pr, Rb, Rv 1, Rv 2, **S**, Su 1, Sw 1, Sw 2, T, U, V, VW, Wo 1, Wo 2, **Wo 3**.

Apus caffer (Licht.) White-rumped Swift

Cypselus Caffer Lichtenstein, Verzeichniss der Doubletten . . . , 1823: 58. Kaffirland (restricted to Uitenhage, Stresemann, Annls Mus. r. Congo belge, N. Sér. 4to, Zool., 1, 1954: 81–82).

Apus caffer caffer; Vincent, 1952: 53; McLachlan & Liversidge, 1957: 204; Praed & Grant, 1962: 597; B.C.C., 1963: 41.

On the reason for use of binomial only, see Brooke (1964).

Abundant in summer as a breeding visitor symbiotic with man and often robbing *Hirundo cucullata* of its nests. Occasional in winter.

All districts except BW 3, C 1, Ce 3, H, K and N 2. Coll.: **F**, **Rb**, **S**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	5	1							5	19	5	19

Apus affinis theresae Meinertzh. Little Swift

Apus affinis theresae Meinertzhagen, Bull. Br. Orn. Club, 69, 1949: 105. Brandvlei; Vincent, 1952: 53; C.B.C., 1963: 42.

Apus affinis abessynicus; Vincent, 1952: 52 (in part).

Apus affinis; Macdonald, 1957: 86.

Apus affinis affinis; McLachlan & Liversidge, 1957: 205 (in part); Praed & Grant, 1962: 596 (in part).

On the status and range of *A.a. theresae*, see Clancey (1963*b*).

A common, breeding, summer visitor to the Karoo; and an increasing number of records from the Winter Rainfall area suggest that it is one of those species which is expanding its range. Stays later on the Karoo than the other swifts.

B, BW 2, BW 3, C 1, C 2, Cl 1, **Cn**, Ct, D, F, H, K, L, **Lg**, M, MB, N 3,

N 4, O, P, **PA**, Pr, R, Rb, Rv 1, S, Su 1, Su 2, Sw 1, Sw 2, T, U, V, **VW**, W, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo										2	32	

Apus horus (Heugl.) Horus Swift

Cypselus affinis var. *horus* Heuglin, Otnithologie Nordost-Afrika's, 1, 1869: 147. N.E. Africa.

Apus horus; Vincent, 1952: 53; McLachlan & Liversidge, 1957: 204 (in part); Praed & Grant, 1962: 598; C.B.C., 1963: 42.

Rare and local; exact status uncertain.
BW 2, Ct, MB, S.

Genus CYPSIURUS Less.

[**Cypsiurus parvus parvus** (Licht.) Palm Swift

Cypselus parva Lichtenstein, Verzeichniss der Doubletten . . . , 1823: 58. Nubia.
Cypsiurus parva myochrous; Vincent, 1952: 53.
Cypsiurus parvus parvus; McLachlan & Liversidge, 1957: 206.
Cypsiurus parvus myochrous; Praed & Grant, 1962: 599.

A sight record from Kenhardt (Winterbottom, 1965*e*) needs confirmation.]

Family **Capitonidae**

Genus LYBIUS Herm.

On the limits of this genus, see Ripley (1945) and South African Ornithological Society, List Committee Report (1959).

Lybius leucomelas (Bodd.) Pied Barbet

Revision, Winterbottom (1958*b*, 1962*g*).

a. *Lybius leucomelas leucomelas* (Bodd.)
Buceo leucomelas Boddaert, Table des planches enluminéez . . . , 1783: 43. Cape of Good Hope (amended to Beaufort West, Cape Province, Winterbottom, 1958*b*).
Tricholaema leucomelas leucomelas; Vincent, 1952: 48; Macdonald, 1957: 89; McLachlan & Liversidge, 1957: 230.
Tricholaema leucomelas centralis; Vincent, 1952: 49.
Tricholaema leucomelas centrale; McLachlan & Liversidge, 1957: 230.
Tricholaema leucomelan leucomelan; Praed & Grant, 1962: 546.

Map 19. Distribution of subspecies of *Lybius leucomelas*. Dots: *L. l. leucomelas*; crosses: *L. l. namaqua*.

Common inland on the Karoo, intergrading in a wide belt with *L.l. namaqua*.

B, **BW 2**, C 2, **Cn**, **Ct**, D, F, **H**, **K**, **Lg**, **P**, **PA**, Pr, **R**, **Su 2**, U, **VW**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo									1	1		

b. *Lybius leucomelas namaqua* (W. L. Scl.)

Tricholaema leucomelas namaqua W. L. Sclater, Bull. Br. Orn. Club, 43, 1922: 63. Klipfontein; Vincent, 1952: 48; Macdonald, 1957: 89; McLachlan Liversidge, 1957: 230.

Tricholaema leucomelan namaqua; Praed & Grant, 1962: 546.

Lybius leucomelas namaqua; C.B.C., 1963: 40.

Replaces the preceding along the coastal strip, including the whole Winter Rainfall area.

C 1, Ce 3, **Cl 1**, L, **Lg**, M, MB, **N 1**, N 2, **N 3**, **N 4**, O, **Rb**, **Rv 1**, **S**, **Sw 1**, T, **V**, Wo 1, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								2	2	4		

Family **Picidae**

Genus GEOCOLAPTES Swains.

Geocolaptes olivaceus olivaceus (Gmel.) Ground Woodpecker

Picus olivaceus Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, 1, 1788: 431. Cape of Good Hope.

Geocolaptes olivaceus olivaceus; Vincent, 1952: 50 (in part); McLachlan & Liversidge, 1957: 239 (in part); C.B.C., 1963: 41.

Geocolaptes olivaceus theresae; Vincent, 1952: 50.

Geocolaptes olivaceus; Macdonald, 1957: 89; Praed & Grant, 1962: 57 (in part).

On the invalidity of *G. o. theresae* Meinertzhagen, see South African Ornithological Society, List Committee Report (1961).

Widely distributed, especially, but not exclusively, in mountainous country.

B, BW 1, BW 2, C 2, **Ce 2**, Cl 1, Cl 2, Cn, Ct, D, **F**, L, Lg, M, MB, N 3, O, P, PA, R, Rb, Rv 1, **S**, Su 1, Su 2, Sw 1, Sw 2, T, V, VW, **W**, **Wo 1**, Wo 2, **Wo 3**.

Genus CAMPETHERA Gray

Campethera notata notata (Licht.) Knysna Woodpecker

Picus notatus Lichtenstein, Verzeichniss der Doubletten . . . , 1823: 11. Kaffraria (restricted to Galgenbosch near Thornhill, E. Cape; Stresemann, Annls Mus. r. Congo belge, N. Sér. 4to, Zool., 1, 1954: 81–82).

Campethera notatus; Vincent, 1952: 50; C.B.C., 1963: 41.

Campethera notata; McLachlan & Liversidge, 1957: 240; Praed & Grant, 1962: 578.

Only in well-wooded localities in the east of the Winter Rainfall area.

Rv 1, S, Sw 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										1		

Campethera abingoni anderssoni (Roberts) Golden-tailed Woodpecker

Chrysoptilopicus abingoni anderssoni Roberts, Ann. Transv. Mus., 18, 1936: 255. Windhoek.

Campethera abingoni annectans; Vincent, 1952: 51 (in part).

Campethera abingoni anderssoni; Macdonald, 1957: 91; McLachlan & Liversidge, 1957: 240; Praed & Grant, 1962: 577.

Revision, Clancey (1959*e*).

Recorded only from the Orange River valley.
H, U.

Genus DENDROPICUS Malh.

Dendropicos fuscescens (Vieill.) Cardinal Woodpecker

a. *Dendropicos fuscescens fuscescens* (Vieill.)

Picus fuscescens Vieillot, Nouvelle dictionnaire d'historie naturelle, 26, 1818: 86. Forests of Cape Colony (restricted to Grootvadersbosch, Swellendam, Cape Province, Roberts, Ann. Transv. Mus., 10, 1929: 83).

Dendropicos fuscescens fuscescens; Vincent, 1952: 51; McLachlan & Liversidge, 1957: 241 (in part); Praed & Grant, 1962: 579 (in part); C.B.C., 1963: 41.

Except where replaced by the next form, widely, but mostly sparingly, distributed where there are indigenous trees, though fairly common along thickly wooded rivers.

BW 2, Cl 1, **Ct**, **H**, K, Lg, N 1, N 3, O, P, **PA**, **Pr**, Rv 1, S, **Sw 1**, **T**.

b. *Dendropicos fuscescens harei* Roberts.

Dendropicos hartlaubi harei Roberts, Ann. Transv. Mus., 10, (2), 1924: 84. Barkly West, N. Cape.

Dendropicos fuscescens orangensis; Vincent, 1952: 51.

Dendropicos fuscescens fuscescens; Macdonald, 1957: 92; McLachlan & Liversidge, 1957: 241 (in part); Praed & Grant, 1962: 579 (in part).

Replaces the preceding in the north-west.
K, N 1, N 2, N 4, U.

Genus MESOPICOS Malh.

Mesopicos griseocephalus griseocephalus (Bodd.) Olive Woodpecker

Picus griseocephalus Boddaert, Table des planches enluminéez . . . , 1783: 49. Cape of Good Hope.

Mesopicos griseocephalus griseocephalus; Vincent, 1952: 51; McLachlan & Liversidge, 1957: 242; Praed & Grant, 1962: 584; C.B.C., 1963: 41.

A forest species of the Winter Rainfall area and uncommon.
S, Sw 1, T.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										5		

Genus THRIPIAS Cab. & Heine

[**Thripias namaquus namaquus** (Licht.) Bearded Woodpecker

Picus namaquus Lichtenstein, Catalogus rerum naturalium rarissimarum Hamburgi, 1793: 17. Cape of Good Hope (amended to Great Namaqualand, Clancey, Bull. Br. Orn. Club, 78, 1958: 41).

Thripias namaquus namaquus; Vincent, 1952: 51; McLachlan & Liversidge, 1957: 242; Praed & Grant, 1962: 582.

May occur along the Orange River.]

Genus JYNX L.

[**Jynx ruficollis ruficollis** Wagl. Red-breasted Wryneck

Jynx ruficollis Wagler, Natürliches System der Amphibien, 1830: 118. Kaffirland = Eastern Cape Province (Korrumus Mts., E. Cape, Stresemann, Annls Mus. r. Congo belge, N. Sér. 4to, Zool., 1, 1954: 81–82).

Jynx ruficollis ruficollis; Vincent, 1952: 52; McLachlan & Liversidge, 1957: 243; Praed & Grant, 1962: 588.

May occur as a straggler in the extreme south-east.]

Family **Indicatoridae**

Genus INDICATOR Steph.

Indicator indicator (Sparrm.) Greater Honeyguide

Cuculus indicator Sparrman, Phil. Trans. R. Soc., 67, 1777: 43, pl. 1. Great Fish River, near Somerset East, Cape Province.

Indicator indicator; Vincent, 1952: 49; Friedmann, 1955: 115; McLachlan & Liversidge, 1957: 236; Praed & Grant, 1962: 563.

Indicator indicator indicator; C.B.C., 1963: 40.

Widely but thinly distributed in wooded parts of the Winter Rainfall area; and sporadic on the Karoo.

BW 2, C 2, Cl 1, Ct, M, MB, N 3, P, PA, Rb, Rv 1, **S**, **Sw 1**, Sw 2, T, U, V, Wo 1, Wo 2.

Indicator variegatus variegatus Less. Scaly-throated Honeyguide

Indicator variegatus Lesson, Traité d'ornithologie, 1831: 155. Africa (restricted to Knysna, Grant & M.-Praed, Bull. Br. Orn. Club, 58, 1938: 118); Friedmann, 1955: 89; McLachlan & Liversidge, 1957: 236; Praed & Grant, 1962: 561.

Indicator variegatus variegatus; Vincent, 1952: 50.

A rare straggler, recorded only from Beaufort West long ago.

BW 2.

Indicator minor minor Stephens Lesser Honeyguide

Indicator minor Stephens, in Shaw's General zoology, 9, 1815: 140. Cape of Good Hope (restricted to Zwartkops River, Uitenhage, Cape Province, Grant & M.-Praed, Bull. Br. Orn. Club, 58, 1938: 118).

Indicator minor minor; Vincent, 1952: 50; Friedmann, 1955: 179; Macdonald, 1957: 89; McLachlan & Liversidge, 1957: 237; Praed & Grant, 1962: 565; C.B.C., 1963: 41.

Recorded only from the extreme south-east (uncommon) and north-east. **Ct**, M, O, **Pr**, S, Sw 1, Sw 2.

Family **Alaudidae**

Genera and arrangement in this family follow Verheyen (1958).

Genus MIRAFRA Horsf.

[**Mirafra cheniana** Smith Singing Bush Lark

Mirafra cheniana A. Smith, Illustrations of the zoology of South Africa, Aves, 1843: pl. 89, fig. 2. Latakoo, Botswana; Vincent, 1952: 53; McLachlan & Liversidge, 1957: 245; Praed & Grant, 1962: 610.

May occur in the north-east.]

Mirafra africana africana Smith Rufous-naped Lark

Mirafra africana A. Smith, Report of the expedition for exploring Central Africa, 1836: 47. Eastern Cape Province and the country as far north as Latakoo (restricted to Eastern Cape); Macdonald, 1957: 93.

Mirafra africana africana; Vincent, 1952: 54; McLachlan & Liversidge, 1957: 246.

Mirafra africana transvaalensis; Grant & Praed, 1962: 611.

A grassveld species which only enters our area along the Orange River in the Hopetown District. A sight record from Oudtshoorn cannot be accepted without confirmation.

H.

Mirafra apiata (Vieill.) Clapper Lark

For a revision of the south-western races, see Winterbottom (1956*a*); for other races, see Macdonald (1952*c*).

a. *Mirafra apiata apiata* (Vieill.)

Alauda apiata Vieillot, Nouvelle dictionnaire d'histoire naturelle, 1, 1816: 342. Swartland (= Malmesbury District, Cape Province).

Mirafra apiata apiata; Vincent, 1952: 54 (in part); Macdonald, 1957: 93 (in part); McLachlan & Liversidge, 1957: 253; Praed & Grant, 1962: 615; C.B.C., 1963: 42.

From Malmesbury to the Olifants River, chiefly in indigenous bush.

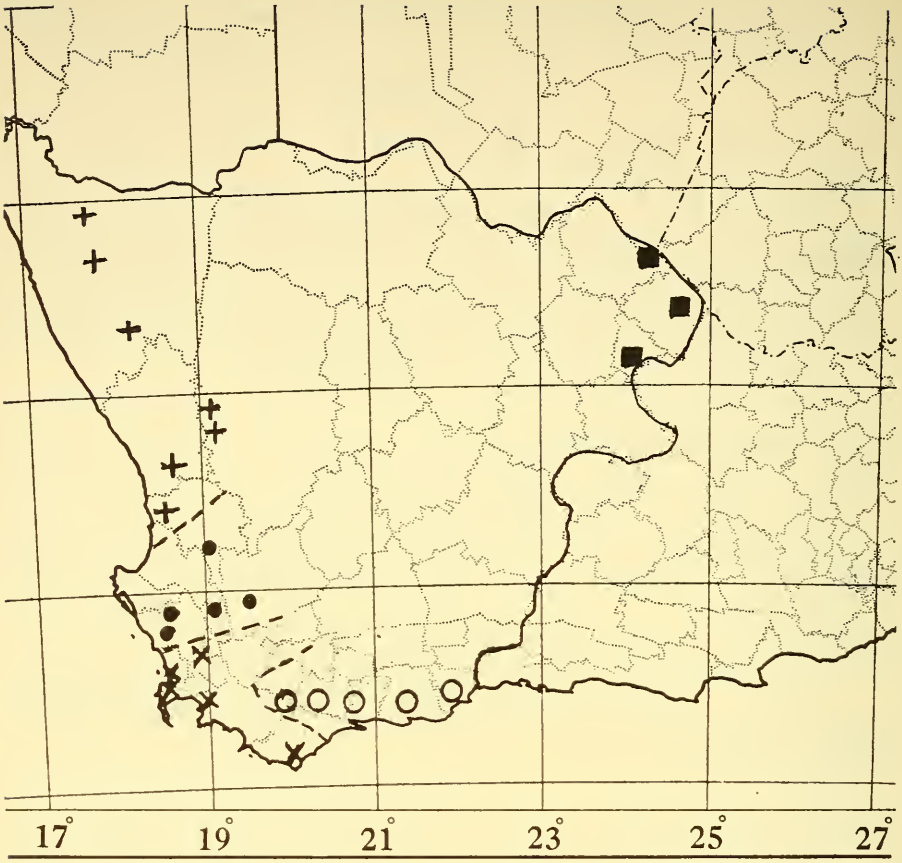
Ce 2, **Cl 1**, Cl 2, **S**, Su 1, **T**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								2				

b. *Mirafra apiata marjoriae* Winterbottom.

Mirafra apiata marjoriae Winterbottom, Ostrich, 27, 1956: 156. Zoetendals-vlei, Bredasdorp; McLachlan & Liversidge, 1957: 253; Praed & Grant, 1962: 616; C.B.C., 1963: 42.



MAP 20. Distribution of subspecies of *Mirafra apiata*. Dots: *M. a. apiata*; diagonal crosses: *M. a. marjoriae*; open circles: *M. a. algoensis*; upright crosses: *M. a. adendorffi*; squares: *M. a. hewitti*.

Mirafra apiata apiata; Vincent, 1952: 54 (in part).

From Cape Town to Bredasdorp.

S.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									1	2		

c. *Mirafra apiata algoensis* (Roberts)

Megalophoneus apiatus algoensis Roberts, Ann. Transv. Mus., 11, 1926: 222. Port Elizabeth.

Mirafra apiata algoensis; Vincent, 1952: 54; McLachlan & Liversidge. 1957: 253; Praed & Grant, 1962: 616; C.B.C., 1963: 42.

From the Breede River valley east.

MB, O, PA, **Rv 1**, **S**, **Sw 1**, Wo 1, Wo 3.

d. *Mirafra apiata adendorffi* Roberts.

Mirafra apiata adendorffi Roberts, Ann. Transv. Mus., 6, 1919: 117. Klaver, Cape Province; Vincent, 1952: 54; Macdonald, 1957: 94; McLachlan & Liversidge, 1957: 253; Praed & Grant, 1962: 615; C.B.C., 1963: 42.

From the Olifants River north to the Orange River.
C 2, **Cl 1**, Cl 2, N 1, **N 3**, N 4, **V**.

e. *Mirafra apiata hewitti* (Roberts)

Megalophoneus hewitti Roberts, Ann. Transv. Mus., 11, 1926: 223. Rooiberg, Transvaal.

Mirafra apiata hewitti; Vincent, 1952: 54; Macdonald, 1957: 93: McLachlan & Liversidge, 1957: 253.

Mirafra damarensis hewitti; Praed & Grant, 1962: 617.

The north-eastern Karoo.
BW 2, **D**, H, P, R, VW.

Mirafra africanoides Smith — Fawn-coloured Lark

Revision, Winterbottom (1966*a*).

a. *Mirafra africanoides africanoides* Smith

Mirafra africanoides A. Smith, Report of the expedition for exploring central Africa, 1836: 47. Eastern Province of the Colony and Latakoo (restricted to Colesberg, Macdonald, 1957).

Mirafra africanoides africanoides; Vincent, 1952: 55; Macdonald, 1957: 94; McLachlan & Liversidge, 1957: 247; Praed & Grant, 1962: 621.

The open Acacia country near the Orange River in the north-east.
H, **Pr**.

b. *Mirafra africanoides gobabisensis* (Roberts).

Anacorys africanoides gobabisensis Roberts, Ann. Transv. Mus. 18, 1936: 263. Gobabis, S.W.A.

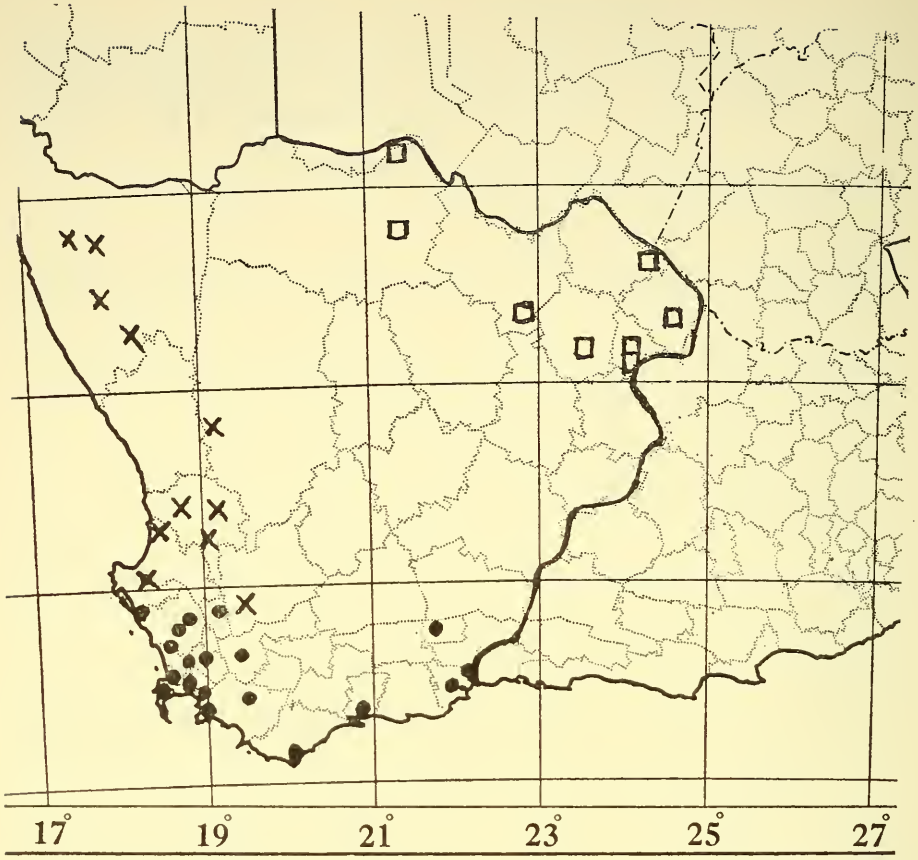
Mirafra africanoides gobabisensis; Vincent, 1952: 55; Macdonald, 1957: 97; McLachlan & Liversidge, 1957: 247; Praed & Grant, 1962: 622.

Replaces the preceding further west.
U.

Mirafra sabota bradfieldi (Roberts) — Sabota Lark

Sabota sabota bradfieldi Roberts, Ann. Transv. Mus., 12, 1928: 316. De Aar.

Mirafra sabota bradfieldi; Vincent, 1952: 56; Macdonald, 1957: 98; McLachlan & Liversidge, 1957: 248.



MAP 21. Distribution in the Western Cape of *Mirafra sabota* and subspecies of *Euplectes capensis*. Squares: *M. sabota*; dots: *E. c. capensis*; crosses: *E. c. macrorhyncha*.

Mirafra naevia bradfieldi; Praed & Grant, 1962: 626.

For revision of races, see White (1947, 1956*b*).

A northern species, confined to the north-east of our area, as far south-west as Vanwyksvlei and Vosburg.

B, Cn, **D**, **H**, **K**, **P**, **Pr**, R, **U**, **W**, VW.

[**Mirafra chuana** (Smith) Short-clawed Lark

Alauda chuana A. Smith, Report of the expedition for exploring central Africa, 1836: 46. Country beyond Latakoo.

Heterocorys chuana; Vincent, 1952: 57; Praed & Grant, 1962: 638.

Mirafra chuana; McLachlan & Liversidge, 1957: 252.

May occur in the north-east.]

[**Mirafra nigricans nigricans** (Sund.) Dusky Bush Lark

Alauda nigricans Sundevall, Öfvers. K. VetenskAkad. Förh., 7, 1850: 99. Aprevier (= Aapies River, Pretoria District).

Pinarocorys nigricans; Vincent, 1952: 56; Macdonald, 1957: 100; McLachlan & Liversidge, 1957: 249; Praed & Grant, 1962: 627.

I have kept this species in *Mirafra*, as Peters (in Mayr & Greenway, 1960) does, despite Verheyen's view.

May occur in the north-east.]

Genus ALAEMON Keys. & Blas.

For use of this generic name, see Verheyen (1958) and Winterbottom (1960*b*).

Alaemon burra (Bangs) Red Lark

Ammomanes burra Bangs, Bull. Mus. comp. Zool. Harv., 70, 1930: 368. Bushman Flats (new name for *Alauda ferruginea* Smith 1839, not *Alauda ferruginea* Voight, 1831); Macdonald; 1957: 105; Praed & Grant, 1962: 639.

Pseudammomanes burra burra; Vincent, 1952: 58.

Pseudammomanes burra aridula; Vincent, 1952: 58.

Pseudammomanes harei; Vincent, 1952: 59.

Certhilauda burra; McLachlan & Liversidge, 1957: 226.

MAP 22. Distribution of *Alaemon burra*. Large dots: specimens; dots in circles: sight records.

For reasons for rejecting the forms *aridula* Roberts and *harei* Roberts, see Macdonald (1957) and South African Ornithological Society List Committee Report (1959). I am unable to accept Lawson's view (1961) that this is merely a subspecies of *Certhilauda albescens*, from which it differs in bill-shape, proportions, size and voice.

Confined to the north-central area of the Karoo, on red sand; and there not uncommon.

C 1, Cn, K, N 4, Pr, **W.**

Genus EREMOPTERIX Kaup

Eremopterix leucotis smithii (Bp.) Chestnut-backed Sparrow-Lark

Pyrrhulauda smithii Bonaparte, Conspectus generum avium, 1, 1850: 512. South Africa (restricted to Palla, Botswana, Macdonald & Hall, Ann. Transv. Mus. 23, 1957: 20).

Eremopterix leucotis smithii; Vincent, 1952: 59; McLachlan & Liversidge, 1957: 258; Praed & Grant, 1962: 644.

A northern species recorded from Kraankuil by Townsend and from Upington (perhaps *E.l. hoeschi* White); and whose presence was also reported to me by Mr. Marais from the De Aar District as a rare straggler. Praed & Grant (1962) think it more widely distributed than this.

D, H, U.

Eremopterix verticalis (Smith) Grey-backed Sparrow-Lark

a. *Eremopterix verticalis verticalis* (Smith)

Megalotis verticalis A. Smith, Report of the expedition for exploring central Africa, 1836: 48. Country both sides of the Orange River (restricted to Colesberg, Cape Province, Macdonald, 1957: 107).

Eremopterix verticalis verticalis; Vincent, 1952: 59; McLachlan & Liversidge, 1957: 258; Praed & Grant, 1962: 646; C.B.C., 1963: 43.

Generally distributed on the Karoo, except where replaced by the following race; but subject to nomadic movements, not yet analysed. In the Winter Rainfall area, primarily a bird of grain-fields and ploughed land and much more frequently noted in summer than in winter.

B, BW 2, **C 2**, Ce 1, Ce 2, Cl 1, Cl 2, **D**, F, **H**, **Lg**, N 1, N 3, **N 4**, P, PA, Pr, R, **S**, Su 1, Su 2, Sw 1, T, **V**, VW, **W**, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										1		

b. *Eremopterix verticalis damarensis* Roberts

Eremopterix verticalis damarensis Roberts, Ann. Transv. Mus., 14, 1931: 243. Gobabis, S.W.A.; Vincent, 1952: 59; Macdonald, 1957: 106; McLachlan & Liversidge, 1957: 258; Praed & Grant, 1962: 646.

Replaces the preceding in the north-west.
C 1, Cn, **K**, **N 3**, **N 4**, **U**.

Eremopterix australis (Smith) Black-eared Sparrow-Lark

Megelotis australis A. Smith, Report of the expedition for exploring central Africa, 1836: 49. Country along Orange River (restricted to Colesberg, Cape Province, Macdonald, 1957: 107).

Eremopterix australis; Vincent, 1952: 59; Macdonald, 1957: 107; McLachlan & Liversidge, 1957: 258; Praed & Grant, 1962: 648; C.B.C., 1963: 65.

Widespread on the Karoo, though subject to nomadic movements not yet understood. It is recorded as far south as the Monazite Mine, Vanrhynsdorp, in the west and Klaarstroom in the east but there are no records from a wide stretch of the central Karoo west from Beaufort West and Prince Albert, nor from the Little Karoo.

B, **BW 2**, C 1, C 2, **Cn**, **D**, **F**, H, K, N 3, **N 4**, P, **PA**, Pr, R, **V**, VW, W.

Genus CALENDULA Swains.

Calendula magnirostris magnirostris (Steph.) Thick-billed Lark

Alauda magnirostris Stephens, General zoology, 14, 1826: 26. Near Cape Town.

Calendula magnirostris magnirostris; Vincent, 1952: 56; McLachlan & Liversidge, 1957: 249: Praed & Grant, 1962: 643; C.B.C., 1963: 42.

Calendula magnirostris harei; Vincent, 1952: 56; McLachlan & Liversidge, 1957: 249; Praed & Grant, 1962: 644.

For revision of races, see Winterbottom (1957*a*).

Abundant in the Winter Rainfall area wherever the vegetation is not too luxuriant; and widely, though more sparsely, distributed on the Karoo, except in the extreme north-east (Kenhardt, Upington, Prieska).

All districts except BW 3, Pr, Sw 2 and U. Coll.: **B, BW 2, C 1, C 2, Ce 2, Cl 1, Cn, D, F, Lg, N 2, N 3, N 4, O, P, PA, R, Rb, S, Sw 1, V, W, Wo 1, Wo 3.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								15	17	15	2	
Karoo								1				

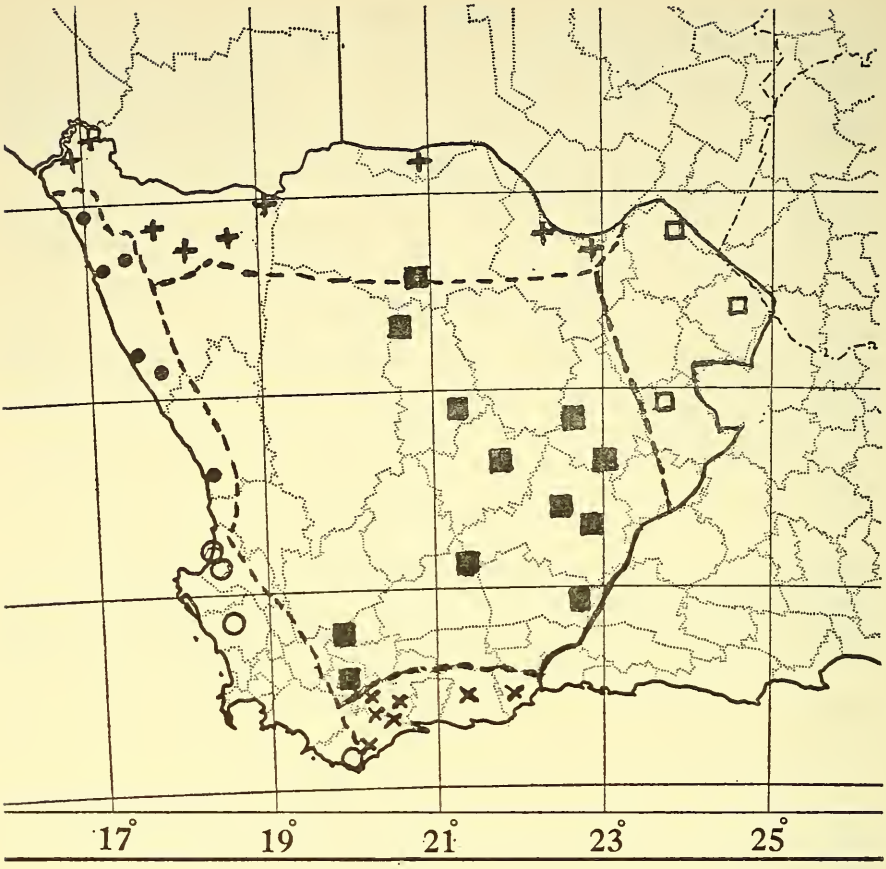
Genus CERTHILAUDA Swains.

Certhilauda curvirostris (Herm.) Long-billed Lark

For revision of races, see Macdonald (1952*a*), Clancey (1957*d*) and Winterbottom (1959*b*).

a. *Certhilauda curvirostris curvirostris* (Herm.)

Alauda curvirostris Hermann, Tabulae affinitatum animalium, 1783: 216. Cape of Good Hope.



Map 23. Distribution of subspecies of *Certhilauda curvirostris*. Open circles: *C. c. curvirostris*; diagonal crosses: *C. c. brevirostris*; dots: *C. c. falcirostris*; open squares: *C. c. subcoronata*; solid squares: *C. c. gilli*; upright crosses: *C. c. bradshawi*.

Certhilauda curvirostris curvirostris; Vincent, 1952: 57; McLachlan & Liversidge, 1957: 256; Praed & Grant, 1962: 63 (in part); C.B.C., 1963: 42.

The Winter Rainfall area from western Bredasdorp to the Olifants River, chiefly on flat ground.

S, T.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1	2	1		

b. *Certhilauda curvirostris brevirostris* Roberts

Certhilauda curvirostris brevirostris Roberts, Ostrich, 11, 1941: 129. Zoetendals-

vlei, Bredasdorp; Vincent, 1952: 57; McLachlan & Liversidge, 1957: 256; C.B.C., 1963: 42.

Certhilauda curvirostris curvirostris; Praed & Grant, 1962: 631 (in part).

From Bredasdorp east along the coastal strip to Mossel Bay.

MB, Rv 1, S, Sw 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									2	1		

c. *Certhilauda curvirostris falcirostris* Reich.

Certhilauda falcirostris Reichenow, J. Orn., Lpz., 1916: 161. Port Nolloth.

Certhilauda curvirostris falcirostris; McLachlan & Liversidge, 1957: 256; Praed & Grant, 1962: 632; C.B.C., 1963: 42.

From the Olifants River north along the west coast nearly to the Orange River.

Cl 1, **N 1, N 3, V.**

d. *Certhilauda curvirostris subcoronata* Smith

Certhilauda subcoronata A. Smith, Illustrations of the zoology of South Africa, Aves, 1843: pl. 90, fig. 2. Karoo plains of middle and eastern districts of Cape Colony (restricted to Deelfontein, Sclater, Systema avium aethiopicarum, 2, 1930: 319).

Certhilauda curvirostris subcoronata; Vincent, 1952: 57; McLachlan & Liversidge, 1957: 256; Praed & Grant, 1962: 632 (in part).

Only in the north-east of the Karoo area.

B, **D**, **H**, **P**, R.

e. *Certhilauda curvirostris gilli* Roberts

Certhilauda subcoronata gilli Roberts, Ann. Transv. Mus., 18, 1936: 260. Beaufort West.

Certhilauda curvirostris gilli; Vincent, 1952: 57; McLachlan & Liversidge, 1957: 256; C.B.C., 1963: 42.

Certhilauda curvirostris subcoronata; Praed & Grant, 1962: 632 (in part).

The southern Karoo, including the Worcester–Robertson enclave, north to the Nieuwveld.

BW 1, **BW 2**, BW 3, **C 1**, C 2, Ce 2, Ce 3, Cn, **F**, **Lg**, O, **PA**, **Rb**, Su 1, Su 2, **VW**, **W**, Wo 1, Wo 3.

f. *Certhilauda curvirostris bradshawi* (Sharpe)

Alaemon bradshawi Sharpe, Ibis, 1904: 361. Orange River near Upington.

Certhilauda curvirostris bradshawi; Vincent, 1952: 57; Macdonald, 1957: 102; McLachlan & Liversidge, 1957: 256; Praed & Grant, 1962: 632.

The north-west, except the coastal strip inhabited by *C.c. falcirostris*, from Brandvlei and Carnarvon to the Orange River.

K, N 1, N 2, N 3, N 4, Pr, U.

Certhilauda albescens (Lafres.) Karoo Lark

Revisions, Macdonald (1953), Lawson (1961*a*); see also Winterbottom (1959*a*, 1960*a*).

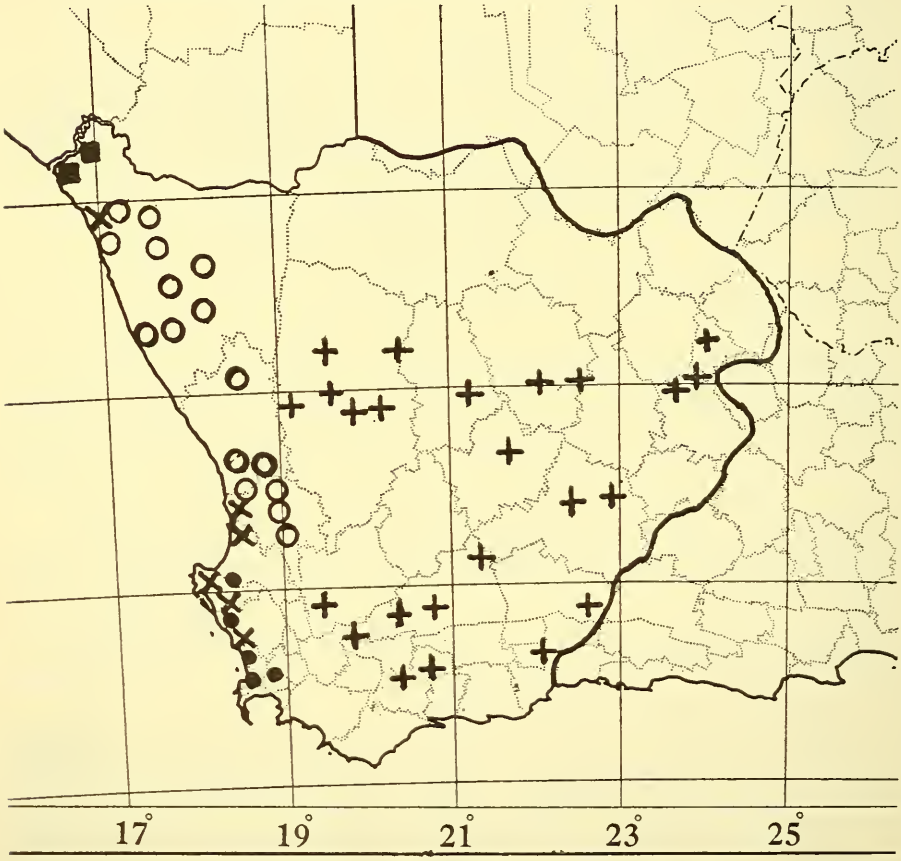
a. *Certhilauda albescens albescens* (Lafres.)

Alauda albescens Lafresnaye, Revue Zool., 1839: 259. Blouberg, Table Bay.
Mirafra albescens albescens; Vincent, 1952: 56.
Certhilauda albescens albescens; McLachlan & Liversidge, 1957: 249; Praed & Grant, 1962: 628; C.B.C., 1963: 42.

Indigenous bush on the Cape Flats, but now decidedly rare.
S.

b. *Certhilauda albescens codea* (Smith)

Alauda codea A. Smith, Illustrations of the zoology of South Africa, Aves, 1843: pl. 87. Between the Olifants and Orange Rivers (restricted to Lambert's Bay, Winterbottom, 1959*a*).



Map 24. Distribution of subspecies of *Certhilauda albescens*. Dots: *C. a. albescens*; diagonal crosses: *C. a. codea*; open circles: *C. a. guttata*; squares: *C. a. cavei*; upright crosses: *C. a. karruensis*.

Mirafra albescens saldanhae; Vincent, 1952: 56; C.B.C., 1955: 37.
Certhilauda albescens saldanhae; McLachlan & Liversidge, 1957: 249; Praed & Grant, 1962: 629.
Certhilauda albescens codea; C.B.C., 1963: 42.

Inhabits country along the west coast from Saldanha Bay to Port Nolloth; and common.

Cl 1, Cl 2, **N 1**, **S**, **V**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1	4		4	

c. *Certhilauda albescens guttata* (Lafres.)

Alauda guttata Lafresnaye, Revue Zool., 1839: 259. Olifants River.
Mirafra guttata guttata; Vincent, 1952: 56 (in part).
Certhilauda albescens guttata; Macdonald, 1957: 104; McLachlan & Liversidge, 1957: 249; Praed & Grant, 1962: 629 (in part); C.B.C., 1963: 42.
Mirafra guttata calviniensis; Vincent, 1952: 56.

I regard *calviniensis* as an intergrade between this form and the next.
Inland from the coast in the west, on the red soils.

Cl 1, N 1, N 3, V.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo									1			

d. *Certhilauda albescens karruensis* (Roberts)

Calendulanda albescens karruensis Roberts, Ann. Transv. Mus., 18, 1936: 258. De Aar.
Mirafra albescens karruensis; Vincent, 1952: 56.
Certhilauda albescens guttata; Praed & Grant, 1962: 629 (in part).

Replaces the preceding form on the main Karoo.

B, BW 1, **BW 2**, C 1, **C 2**, Ce 1, **Ce 2**, Ce 3, Cn, Ct, **D**, **F**, H, L, **Lg**, M, O, P, **PA**, R, Rb, Rv 1, Su 1, **Su 2**, **Sw 2**, T, **U**, **VW**, **W**, Wo 1, **Wo 3.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo										2	1	1

e. *Certhilauda albescens cavei* Macd.

Certhilauda albescens cavei Macdonald, Bull. Br. Mus. nat. Hist., Zool., 1, 1953: 344. Witputs, Great Namaqualand.
Mirafra guttata guttata; Vincent, 1952: 56 (in part).
Certhilauda albescens patae; Macdonald, 1957: 104; McLachlan & Liversidge, 1957: 249; Praed & Grant, 1962: 630.

Only between the Holgat and Orange rivers; and most specimens are intermediates between *cavei*, *codea* and *guttata*.

N 1, N 2.

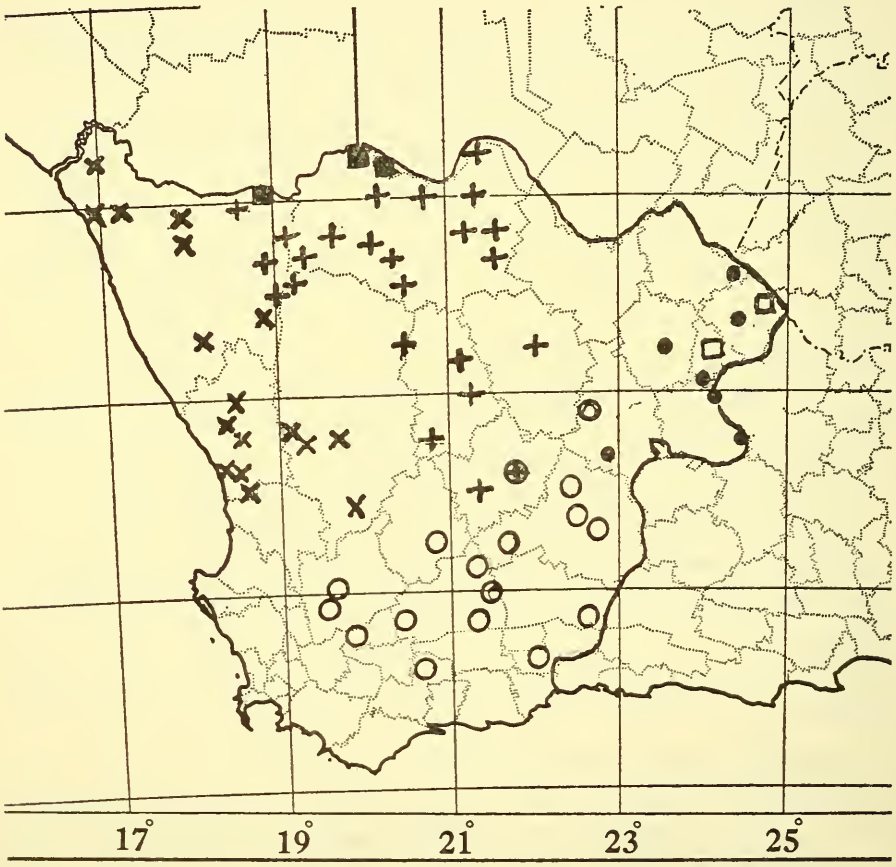
Certhilauda albofasciata Lafres. Spike-heeled Lark

For revision of races, see Winterbottom (1958*a*, 1961*d*).

The Spike-heel is one of the commonest and most abundant of the Karoo larks but is absent from the Winter Rainfall area.

a. *Certhilauda albofasciata albofasciata* Lafres.

Certhilauda albofasciata Lafresnaye, Mag. Zool., 1836: 3, pl. 58. Cape of Good Hope (restricted to Deelfontein, Cape Province, Macdonald, Proc. zool. Soc. Lond., 122, 1953: 985–1006).



Map 25. Distribution of subspecies of *Certhilauda albofasciata*. Dots: *C. a. albofasciata*; diagonal crosses: *C. a. garrula*; circles: *C. a. macdonaldi*; upright crosses: *C. a. bushmanensis*; solid squares: *C. a. arenaria*; open squares: *C. a. baddeleyi*.

Certhilauda albofasciata calviniensis; Vincent, 1952: 58 (in part).

Certhilauda albofasciata albofasciata; McLachlan & Liversidge, 1957: 255 (in part); Praed & Grant, 1962: 633.

The north-east corner of our area.

B, D, H, P, R, VW.

b. *Certhilauda albofasciata macdonaldi* Winterbottom

Certhilauda albofasciata macdonaldi Winterbottom, Ann. S. Afr. Mus., 44, 1958: 59. 23 miles north-east of Karoopoort, Ceres District; Praed & Grant, 1962: 637.

Certhilauda albofasciata calviniensis; Vincent, 1952: 58 (in part).

Certhilauda albofasciata albofasciata; McLachlan & Liversidge, 1957: 255 (in part).

The southern part of the Karoo.

BW 1, BW 2, Ce 3, Ct, **F,** L, **Lg,** M, **O, PA, Su 1, Su 2, Sw 2, VW, Wo 3.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo										1		

c. *Certhilauda albofasciata garrula* Smith

Certhilauda garrula A. Smith, Illustrations of the zoology of South Africa, Aves, 1846: pl. 106. Northern districts of the Colony (restricted to Vanrhynsdorp, Macdonald, Proc. zool. Soc. Lond., 122, 1953: 985–1006).

Certhilauda albofasciata albofasciata; Vincent, 1952: 57.

Certhilauda albofasciata garrula; Macdonald, 1957: 102; McLachlan & Liversidge, 1957: 255; Praed & Grant, 1962: 634; C.B.C., 1963: 43.

The western Karoo, including the coastal strip. A sight record from Langebaan needs confirmation.

C 2, Cl 1, **C 2, N 1, N 2, N 3, N 4, V.**

d. *Certhilauda albofasciata bushmanensis* (Roberts)

Chersomanes albofasciata bushmanensis Roberts, Ostrich, 8, 1937: 99. Border of Bushman Flats and Little Namaqualand.

Certhilauda albofasciata bushmanensis; Vincent, 1952: 58; McLachlan & Liversidge, 1957: 255.

Certhilauda albofasciata calviniensis; Vincent, 1952: 58 (in part).

Certhilauda albofasciata meinertzhageni; Praed & Grant, 1962: 636.

The northern Karoo, north of *macdonaldi*, east of *garrula* and south of *arenaria*.

C 1, Cn, F, K, N 4, Pr, Su 1, U, W.

e. *Certhilauda albofasciata arenaria* Rchw.

Certhilauda albofasciata arenaria Reichenow, Die Vögel Afrikas, 3, 1904: 354. Rehoboth, S.W.A.; Vincent, 1952: 58; Macdonald, 1957: 102; McLachlan & Liversidge, 1957: 255; Grant & Praed, 1962: 634.

Replaces *C.a. bushmanensis* in the lower Orange River drainage. **K, N 4.**

Genus CALANDRELLA Kaup

Calandrella cinerea (Gmel.) Red-capped Lark

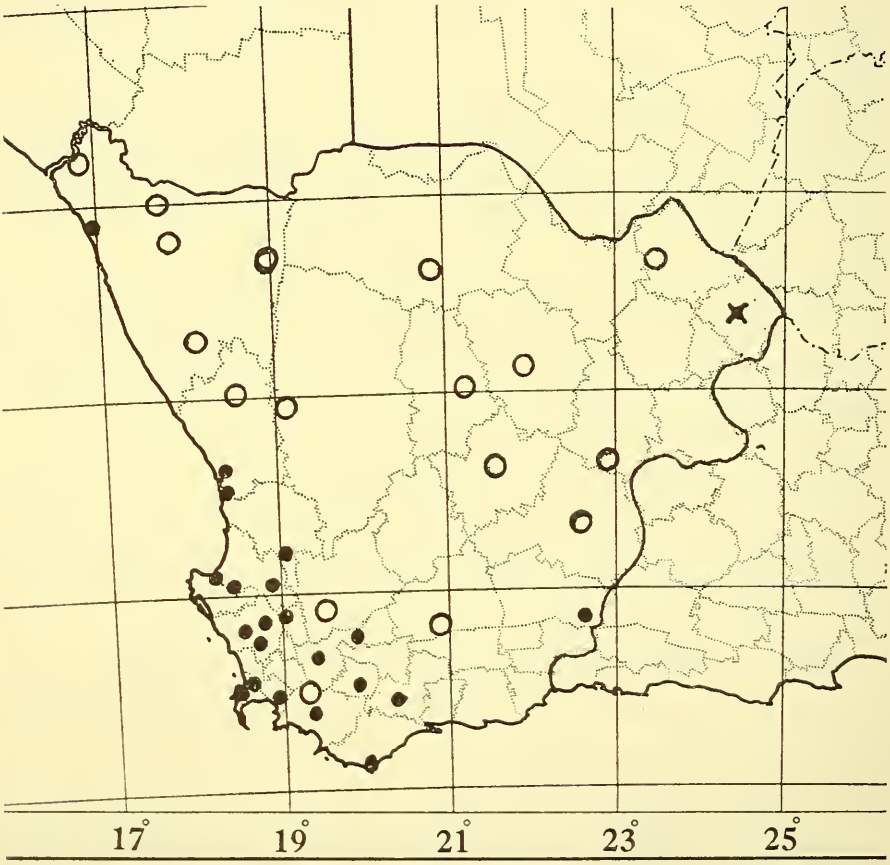
For races, see South African Ornithological Society List Committee Report (1956: 178–179).

a. *Calandrella cinerea cinerea* (Gmel.)

Alauda cinerea Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 798. Cape of Good Hope.

Calandrella cinerea cinerea; Vincent, 1952: 59; Praed & Grant, 1962: 649; C.B.C., 1963: 43.

Tephrocorys cinerea cinerea; McLachlan & Liversidge, 1957: 260.



MAP 26. Distribution of subspecies of *Calandrella cinerea*. Dots: *C. c. cinerea*; crosses: *C. c. anderssoni*; open circles: *G. c. witbutzi*.

In cultivated land, pastures and open indigenous bush in the west and south, where a common breeding species.

Cl 1, M, MB, **N 1**, O, **Pn**, **Rb**, Rv 1, Rv 2, S, **Sw 1**, Sw 2, T, **V**, Wo 1, **Wo 3.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								16	40	51	23	3

b. *Calandrella cinerea witputzi* (Macd.)

Tephrocorys cinerea witputzi Macdonald, Ann. Transv. Mus., 22, 1952: 31. Witputs, Great Namaqualand; Macdonald, 1957: 109; McLachlan & Liversidge, 1957: 260.

Calandrella cinerea spleniata; Vincent, 1952: 59 (in part).

Calandrella cinerea witputzi; Praed & Grant, 1962: 650; C.B.C., 1963: 43.

Replaces the preceding over most of the Karoo.

B, **BW 2**, C 1, **C 2**, Ce 1, **Ce 2**, Ce 3, **Cn**, **D**, **F**, **H**, **K**, Lg, **N 1**, **N 2**, **N 3**, **N 4**, **PA**, Pr, R, S, Su 1, Su 2, U, **V**, **VW**, **W**.

c. *Calandrella cinerea anderssoni* (Tristr.)

Megalophoneus anderssoni Tristram, Ibis, 1869: 434. Otjimbinque, S.W.A.

Calandrella cinerea spleniata; Vincent, 1952: 59 (in part).

Tephrocorys cinerea anderssoni; Macdonald, 1957: 109; McLachlan & Liversidge, 1957: 260; Praed & Grant, 1962: 650.

Recorded only from the extreme north-east.

P.

[**Calandrella conirostris barlowi** (Roberts) Pink-billed Lark

Spizocorys conirostris barlowi Roberts, Ostrich, 13, 1942: 52. 20 miles west of Upington; Macdonald, 1957: 109; McLachlan & Liversidge, 1957: 260.

Calendrella conirostris barlowi; Vincent, 1952: 60.

Spizocorys conirostris conirostris; Praed & Grant, 1962: 640.

A sight record from Melton Wold needs confirmation; but the species may well occur further to the north-east near the Orange River.]

Calandrella sclateri Shell. Sclater's Lark

For races, see Winterbottom (1956*c*).

a. *Calandrella sclateri sclateri* Shell.

Calandrella sclateri Shelley, Birds of Africa, 3, 1902: 136. Hauntop River, Great Namaqualand.

Calandrella sclateri sclateri; Vincent, 1952: 60.

Spizocorys sclateri; Macdonald, 1957: 110; McLachlan & Liversidge, 1957: 260 (in part).

Spizocorys sclateri sclateri; Praed & Grant, 1962: 642.

The extreme north, near the Orange River.

N 4, U.

b. *Calandrella sclateri capensis* O.-Grant.

Calandrella sclateri capensis Ogilvie-Grant, Ann. S. Afr. Mus., 13, 1913: 41. Philipstown, Cape Province; Vincent, 1952: 60.

Spizocorys sclateri; McLachlan & Liversidge, 1957: 260 (in part).

Spizocorys sclateri capensis; Praed & Grant, 1962: 642.

A nomadic form, widely distributed in the central Karoo.

BW 2, Cn, H, P, W.

c. *Calandrella sclateri theresae* Meinertzh.

Calandrella sclateri theresae Meinertzhagen, Bull. Br. Orn. Club, 69, 1949: 106. 25 miles east of Pofadder, Cape Province; Vincent, 1952: 60.

Spizocorys sclateri; McLachlan & Liversidge, 1957: 260 (in part).

Spizocorys sclateri theresae; Praed & Grant, 1962: 643.

Only in the north-west. A doubtful race.

Cn, K, **N 4**.

Calandrella starki Shell. Stark's Lark

a. *Calandrella starki starki* Shell.

Calandrella starki Shelley, Birds of Africa, 3, 1902: 135. Wilson's Fountain, Great Namaqualand; Vincent, 1952: 60 (in part).

Spizocorys starki; Macdonald, 1957: 109; McLachlan & Liversidge, 1957: 261 (in part); Praed & Grant, 1962: 641 (in part).

An off-season visitor from further north, which has been taken at Banken (Bushmanland), Pofadder and Prieska.

K, N 4, Pr.

b. *Calandrella starki gregaria* Clancey

Calandrella starki gregaria Clancey, Durban Mus. Novit., 5, 1959: 212. Bladgrond, Bushmanland.

Calandrella starki; Vincent, 1952 (in part).

Spizocorys starki; McLachlan & Liversidge, 1957: 261 (in part); Praed & Grant, 1962 (in part).

The breeding race of this species, ranging along the Orange River valley to Prieska and southwards, at least occasionally, to Nieuwoudtville, western Calvinia.

C 2, **K**, N 1, **N 2**, N 3, **N 4**.

Family **Hirundinidae**

Arrangement and genera in this family follow Mayr & Bond (1943).

Genus HIRUNDO L.

Hirundo rustica rustica L. European Swallow

Hirundo rustica Linnaeus, Systema naturae, ed. 10, 1758: 191. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1903–23); Macdonald, 1957: 140.

Hirundo rustica rustica; Vincent, 1952: 87; McLachlan & Liversidge, 1957: 262; Praed & Grant, 1963: 334; C.B.C., 1963: 51.

An abundant and widespread, non-breeding, summer visitor from the Palaearctic, especially to the Winter Rainfall area. Birds ringed near Cape Town have been recovered in Britain and Russia. An occasional bird overwinters.

All districts except BW 1, C 1, Cl 1, N 2 and Su 2. Coll.: **N, Rv 1, S, Wo 3.**

Hirundo albigularis albigularis Strickl. White-throated Swallow

Hirundo albigularis Strickland, Jardine's Contr. Orn., 1849: 17. South Africa (restricted to Cape Peninsula).

Hirundo albigularis albigularis; Vincent, 1952: 87; McLachlan & Liversidge, 1957: 262; Praed & Grant, 1963: 336; C.B.C., 1963: 51.

A common, breeding summer visitor to the whole area wherever there is water available.

B, BW 2, **C 2**, Ce 1, Ce 2, Cl 1, Cl 2, Cn, Ct, D, F, **H**, K, L, Lg, M, MB, N 1, N 2, O, P, PA, Pr, R, Rb, Rv 1, Rv 2, **S**, Su 1, Sw 1, T, U, V, VW, W, Wo 1, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	3	1	1					1	25	41	27	13
Karoo			1							1	1	

Hirundo dimidiata dimidiata Sund. Pearl-breasted Swallow

Hirundo dimidiata Sundevall, Öfvers. K. VetenskAkad. Förh., 7, 1850: 107. Leroma, Tvl.; Macdonald, 1957: 140; Praed & Grant, 1963: 337.

Hirundo dimidiata dimidiata; Vincent, 1952: 87; McLachlan & Liversidge, 1957: 264; C.B.C., 1963: 51.

Rather an elusive species, recorded chiefly, but not exclusively, from the Winter Rainfall area, as a breeding summer visitor.

BW 1, BW 2, C 2, Ce 2, Cl 1, Cl 2, Ct, H, L, Lg, M, MB, O, **PA**, Pr, R, Rb, Rv 1, Rv 2, **S**, Su 2, **Sw 1**, Sw 2, T, **U**, V, VW, Wo 1, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									5	8	8	4
Karoo											1	

[**Hirundo semirufa semirufa** Sund. Red-breasted Swallow

Hirundo semirufa Sundevall, Öfvers. K. VetenskAkad. Förh., 7, 1850: 107. Magaliesberg, Tvl. (Gyldenstolpe, Ibis, 1934: 264–292).

Hirundo semirufa semirufa; Vincent, 1952: 88; Praed & Grant, 1963: 342; C.B.C., 1963: 51.

Cecropis semirufa semirufa; McLachlan & Liversidge, 1957: 265.

A sight record from Cape L'Agulhas needs confirmation.]

Hirundo cucullata Bodd. Greater Striped Swallow

Hirundo cucullata Boddaert, Table des planches enluminéez . . . , 1873: 45. Cape of Good Hope; Vincent, 1952: 88; Macdonald, 1957: 141; Praed & Grant, 1963: 343; C.B.C., 1963: 51.

Cecropis cucullata; McLachlan & Liversidge, 1957: 265.

A common, breeding summer visitor wherever there is water available. In the south-west at least, the last of the swallows to leave for the north.

All districts except C 1, Ce 3, K, N 1, N 2, N 4 and Su 2. Coll.: **MB, P, Rb, S, U.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	4	11	9	1					11	20	21	13
Karoo		1										1

Hirundo abyssinica unitatis Scl. & Praed Lesser Striped Swallow

Hirundo puella unitatis W. L. Sclater & M.-Praed, Ibis, 1918: 718. Pinetown, Natal.

Hirundo abyssinica unitatis; Vincent, 1952: 88; Praed & Grant, 1963: 344; C.B.C., 1963: 51.

Cecropis abyssinica unitatis; McLachlan & Liversidge, 1957: 268.

A rare, storm-driven straggler from further east to the Winter Rainfall area.

S.

Hirundo spilodera Sund. Cliff Swallow

Hirundo spilodera Sundevall, Öfvers. K. VetenskAkad. Förh., 7, 1850: 108. Caffraria (restricted to Valsh R., E. of Kroonstad, O.F.S., Gyldenstolpe, Ibis, 1934: 264–292).

Petrochelidon spilodera; Vincent, 1952: 88; Macdonald, 1957: 141; McLachlan & Liversidge, 1957: 268; Praed & Grant, 1963: 346.

A breeding summer visitor to the north-east, reaching its south-western limits in the Nieuwveld Mts. above Beaufort West and Zak River station in north-eastern Calvinia (Rowan, 1963*a*).

B, BW 1, C 2, Cn, **D**, **F**, H, P, R, **VW**.

Hirundo rupestris (Scop.) Rock Martin

I accept Voous's contention (1960) that there is no good reason for splitting the Rock Martins into four species.

a. *Hirundo rupestris fuligula* Licht.

Hirundo fuligula Lichtenstein, Verzeichniss einer Sammlung von Säugethieren und Vögeln . . . Kaffernlande, 1842: 18. Kaffirland (restricted to Baviaans R., E. Cape, Stresemann, Annls Mus. r. Congo belge, N. Sér. 4to, Zool., 1, 1954: 81–82).

Ptyonoprogne fuligula fuligula; Vincent, 1952: 89; McLachlan & Liversidge, 1957: 269; Praed & Grant, 1963: 351; C.B.C., 1963: 52.

An occasional, storm-driven vagrant from further east, recorded only from Somerset West.

S.

b. *Hirundo rupestris anderssoni* (Sharpe & Wyatt)

Cotile anderssoni Sharpe & Wyatt, A monograph of the Hirundinidae, 1, 1887: 119. Daviep, Damaraland.

Ptyonoprogne fuligula anderssoni; Vincent, 1952: 89; Macdonald, 1957: 141; McLachlan & Liversidge, 1957: 269; Praed & Grant, 1963: 351; C.B.C., 1963: 52.

An abundant, resident, breeding species near rocks throughout our area.

All districts: **Cl 1, N 2, P, S, V, VW, Wo 1.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1							4	3	11	6	1
Karoo						1			2	5		1

Genus RIPARIA Forst.

Riparia cincta cincta (Bodd.) Banded Martin

Hirundo cincta Boddaert, Table des planches enluminéez . . . , 1783: 45. Cape of Good Hope.

Riparia cincta cincta; Vincent, 1952: 88; McLachlan & Liversidge, 1957: 271: Praed & Grant, 1963: 349; C.B.C., 1963: 51.

Recorded only from the Winter Rainfall area, where it is a rather uncommon, breeding, summer visitor to the opener parts. A single Karoo record.

BW 2, **Cl 1**, MB, **S**, Sw 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									6	4		

Riparia paludicola paludicola (Vieill.) African Sand Martin

Hirundo paludicola Vieillot, Nouvelle dictionnaire d'histoire naturelle, 14, 1817: 511. South Africa.

Riparia paludicola paludicola; Vincent, 1952: 88; Macdonald, 1957: 141; McLachlan & Liversidge, 1957: 271; Praed & Grant, 1963: 349; C.B.C., 1963: 52.

An abundant, breeding resident near streams, rivers and vleis throughout the area.

All districts except BW 1, BW 3, C 1, Rv 2 and Sw 2: **C 2, Ce 1, F, H, Pr, S, VW, Wo 3.**

Breeding	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII.
W.R.								6	5			

Genus DELICHON Moore

Delichon urbica urbica (L.) House Martin

Hirundo urbica Linnaeus, Systema naturae, ed. 10, 1758: 192. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1903–23).

Delichon urbica urbica; Vincent, 1952: 89; McLachlan & Liversidge, 1957: 270; Praed & Grant, 1963: 352; C.B.C., 1963: 52.

Delichon urbica; Macdonald, 1957: 142.

An uncommon, non-breeding, summer visitor from the Palaearctic, recorded only from the Winter Rainfall area.

C 2, Ce 1, Ce 2, Ct, Rb, **S**.

Genus PSALIDOPROCNE Cab.

Psalidoprocne pristoptera holomelas (Sund.) Black Roughwing

Hirundo holomelas Sundevall, Öfvers. K. VetenskAkad. Förh., 7, 1850: 108. Durban.

Psalidoprocne holomelas holomelas; Vincent, 1952: 89; C.B.C., 1963: 52.

Psalidoprocne holomelaena holomelaena; McLachlan & Liversidge, 1957: 272; Praed & Grant, 1963: 353.

For reasons for the use of *pristoptera* as the specific name, see White (1961).

A forest-edge species, often common enough in its limited habitat and occasionally wandering further afield.

MB, Rv 1, **S**, Sw 1, Sw 2, Wo 1.

Breeding	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										1		

Family **Campephagidae**

Genus CAMPEPHAGA Vieill.

Campephaga phoenicia flava (Vieill.) Black Cuckoo-Shrike

Campephaga flava Vieillot, Nouvelle dictionnaire d'histoire naturelle, 10, 1817: 49. South Africa (restricted to Gamtoos River, Clancey, Durban Mus. Novit., 7, 1966: 422).

Campephaga sulphurata; Vincent, 1952: 89; Praed & Grant, 1963: 357; C.B.C., 1963: 52.

Campephaga phoenicea sulphata; McLachlan & Liversidge, 1957: 273.

An uncommon, forest species, recorded only from Swellendam and the Cape Peninsula.

S, Sw 1.

Genus CORACINA Vieill.

Coracina caesia caesia (Licht.) Grey Cuckoo-Shrike

Ceblepyris caesia Lichtenstein, Verzeichniss der Doubletten . . . , 1823: 51. Kaffraria (restricted to Galgenbosch, near Thornhill, E. Cape, Stresemann, Annls Mus. r. Congo belge, N. Sér. 4to, Zool., 1, 1954: 81–82).

Coracina caesia caesia; Vincent, 1952: 90; McLachlan & Liversidge, 1957: 274; Praed & Grant, 1963: 361.

A forest species, within our limits recorded only from the Swellendam District, Great Brak River, Mossel Bay; and De Rust, Oudtshoorn.

MB, **O**, **Sw 1**.

Family **Dicruridae**

Genus DICRURUS Vieill.

Dicrurus adsimilis adsimilis (Bechst.) Fork-tailed Drongo

Corvus adsimilis Bechstein, J. Lathams allgemeine Uebersicht der Vögel, 2, 1794: 362. South Africa (restricted to Duiwenhok River, Swellendam, Grant & M.-Praed, Bull. Br. Orn. Club, 62, 1942: 61).

Dicrurus adsimilis adsimilis; Vincent, 1952: 90; Macdonald, 1957: 142; McLachlan & Liversidge, 1957: 274; Praed & Grant, 1963: 364; C.B.C., 1963: 52.

Only resident in the south-east, from about De Hoop and De Wet (Worcester) east; and along the Orange River in the north (rare). Straggles west to the Cape Peninsula in the south and south to Beaufort West in the north.

BW 2, Ct, **H**, K, L, MB, N 1, N 2, N 3, **O**, PA, Rb, **Rv 1**, Rv 2, S, **Sw 1** U, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										1	1	

Family **Oriolidae**

Genus ORIOLUS L.

Oriolus oriolus oriolus (L.) Golden Oriole

Coracias oriolus Linnaeus, Systema naturae, ed. 10, 1758: 107. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1903–23).

Oriolus oriolus oriolus; Vincent, 1952: 95; McLachlan & Liversidge, 1957: 276; Praed & Grant, 1963: 429; C.B.C., 1963: 53.

Oriolus oriolus; Macdonald, 1957: 149.

A non-breeding summer visitor from the Palaearctic, irregular in the south but may be more regular further north. Normally an inhabitant of woodland but recorded from the open Karoo on migration.

BW 2, H, N 4, P, PA, **S**.

Oriolus larvatus larvatus Licht. Black-headed Oriole

Oriolus larvatus Lichtenstein, Verzeichniss der Doubletten . . . , 1823: 20. Terr. Caffrar. (restricted to Van Staden's R., E. Cape, Stresemann, Annls Mus. r. Congo belge, N. Sér 4to, Zool., 1, 1954: 81–82).

Oriolus larvatus larvatus; Vincent, 1952: 96; McLachlan & Liversidge, 1957: 277; Praed & Grant, 1963: 430.

A forest-dweller that just enters our area in the extreme south-east. **MB**, O.

Family **Corvidae**

Genus CORVUS L.

Corvus albus Müll. Pied Crow

Corvus albus P. L. S. Müller, C. von Linné . . . Natursystem, Suppl., 1776: 85. Senegal; Vincent, 1952: 96; Macdonald, 1957: 149; McLachlan & Liversidge, 1957: 277; Praed & Grant, 1963: 434; C.B.C., 1963: 53.

Widely distributed and often abundant; but its relationships with *C. capensis* have still to be fully unravelled. Over much of the Karoo, confined to the neighbourhood of tarred roads, where copious road casualties are available.

All districts except BW 1, Ce 1, Ct, K, L, N 2, Rv 2, Sw 2 and U: **S, Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1	13	7	3	
Karoo												1

Corvus capensis Licht. Black Crow

Corvus capensis Lichtenstein, Verzeichniss der Doubletten . . . , 1823: 20. Cape of Good Hope (restricted to Sundays R., E. Cape, Stresemann, Annls Mus. r. Congo belge, N. Sér. 4to, Zool., 1, 1954: 81–82); McLachlan & Liversidge, 1957: 277.

Corvus capensis capensis; Vincent, 1952: 96; Macdonald, 1957: 149; Praed & Grant, 1963: 434; C.B.C., 1963: 54.

Widely distributed and, in places, common; but seldom occurs alongside *C. albus*, and the interrelations of the two species have not yet been fully worked out. They appear to be completely sympatric on the plateau of Little Namaqualand but this is very unusual.

BW 2, C 2, **Ce 1**, Ce 2, Ce 3, Cl 1, Ct, D, L, Lg, M, MB, **N 1**, N 3, **N 4**, O, P, PA, R, Rb, Rv 1, Rv 2, S, Su 2, Sw 1, Sw 2, V, Wo 1, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								2	8	5	2	1

Corvus albicollis Lath. White-necked Raven

Corvus albicollis Latham, Index ornithologicus, 1, 1790: 151. Africa (restricted to Cape Town, Meinertzhagen, Novit. Zool., 33, 1926: 96).

Corvultur albicollis; Vincent, 1952: 96; McLachlan & Liversidge, 1957: 278; Praed & Grant, 1963: 435; C.B.C., 1963: 54.

Common in and near mountainous country throughout the area.

BW 1, BW 2, Ce 1, Ce 2, Ce 3, Cl 1, Cl 2, Ct, D, F, L, Lg, M, MB, N 1, N 2, O, P, PA, R, Rb, Rv 1, Rv 2, **S**, Su 1, Sw 1, Sw 2, T, V, VW, W, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									1		1	

Family **Paridae**

Genus PARUS L.

Parus afer Gmel. Grey Tit

On subspecies, see Hall & Traylor (1959) and Clancey (1963*a*).

a. *Parus afer afer* Gmel.

Parus afer Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 1010. Cape of Good Hope.

Parus afer afer; Vincent, 1952: 94; Macdonald, 1957: 147; McLachlan & Liversidge, 1957: 279; Praed & Grant, 1963: 418; C.B.C., 1963: 53.

The western part of our area, from Cape Town to the Orange River, east to Fraserburg, Williston and Vanwyksvlei.

C 1, **C 2**, Ce 3, **Cl 1**, Cl 2, **Cn**, **F**, **N 1**, **N 2**, **N 3**, **N 4**, **Pr**, **S**, **Su 1**, Su 2, T, **V**, **W**, Wo 1, Wo 2, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.					1			6	9	3		

b. *Parus afer cinerascens* Vieill.

Parus cinerascens Vieillot, Nouvelle dictionnaire d'histoire naturelle, 20, 1818: 316. Cambedoo (corrected to Pella Drift, Orange River, Clancey, Ibis, 1958: 453).

Parus afer cinerascens; Vincent, 1952: 94 (in part); Macdonald, 1957: 147; McLachlan & Liversidge, 1957: 279 (in part); Praed & Grant, 1963: 418 (in part).

East of the range of the preceding, from Robertson and Swellendam north to the Orange River, meeting the type race at Williston.

B, BW 2, Ct, **D**, **H**, K, **Lg**, M, MB, O, **P**, **PA**, R, **Rb**, **Sw 1**, U, **VW**, **W**.

Parus niger niger Vieill. Black Tit

Parus niger Vieillot, Nouvelle dictionnaire d'histoire naturelle, 20, 1818: 325. Africa (restricted to Sundays R., Cape Province); Vincent, 1952: 95; Macdonald, 1957: 147.

Parus niger niger; McLachlan & Liversidge, 1957: 280; Praed & Grant, 1963: 420. I consider *niger* and *leucomelas* to be conspecific.

Within our limits, recorded only by Layard from Beaufort West; but may well be found in Acacia country along the Orange River too.

BW 2.

Genus ANTHOSCOPUS Cab.

Anthoscopus minutus (Shaw & Nodder) Penduline Tit

On races, see South African Ornithological Society, List Committee Report (1956: 182).

a. *Anthoscopus minutus minutus* (Shaw & Nodder)

Sylvia minuta Shaw & Nodder, The naturalist's miscellany, 23, 1812: 997. Olifants River, Cape Province.

Anthoscopus minuta minuta; Vincent, 1952: 95 (in part); Macdonald, 1957: 148; C.B.C., 1963: 53.

Anthoscopus minuta smithii; Vincent, 1952: 95.

Anthoscopus minutus minutus; McLachlan & Liversidge, 1957: 281 (in part); Praed & Grant, 1963: 424 (in part).

A resident species throughout our area, except where replaced by the next form.

BW 1, **BW 2**, C 1, C 2, Ce 1, **Ce 2**, Ce 3, **Cl 1**, Cl 2, Cn, **D**, **F**, **H**, L, Lg, **M**, N 1, **N 2**, **N 3**, N 4, P, **PA**, R, Rb, **S**, **Su 1**, Su 2, **V**, **VW**, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.							2	7	3	2	2	
Karoo											1	

b. *Anthoscopus minutus gigi* Winterbottom

Anthoscopus minutus gigi Winterbottom, Bull. Br. Orn. Club, 79, 1959: 152. Oudtshoorn.

Anthoscopus minuta minuta; Vincent, 1952: 95 (in part).

Anthoscopus minutus minutus; McLachlan & Liversidge, 1957: 281 (in part); Praed & Grant, 1963: 424 (in part).

Replaces the type race on the Little Karoo.

Ct, **O**.

Family **Pycnonotidae**

Genus PYCNONOTUS Boie

The South African forms of this genus fall into three closely related and allopatric groups, the exact relationships of which are still not clear. Lawson (1962*a*) unites all three under one species, *capensis*. I have not followed him here since, although evidence is accumulating that there is considerable interbreeding along the zones of contact between the *nigricans* group and the

barbatus–xanthopygos group, this does not appear to be the case to the same extent with *capensis*. I have therefore kept it as a distinct species, and would probably do the same with the other two groups if both occurred in the area.

Pycnonotus capensis (L.) Cape Bulbul

Turdus capensis Linnaeus, Systema naturae, ed. 12, 1, 1766: 295. Cape of Good Hope.

Pycnonotus capensis; Vincent, 1952: 64; Macdonald, 1957: 115; McLachlan & Liversidge, 1957: 288; Praed & Grant, 1963: 37; C.B.C., 1963: 44.

The common bulbul of the Winter Rainfall area, the Little Karoo and parts of Namaqualand, where it occurs wherever there are fruit-bearing bushes, including country covered with alien acacias. Penetrates some way into the Lower Karoo too.

C 2, Ce 1, **Cl 1**, Cl 2, **Ct**, L, Lg, M, MB, N 1, N 3, O, **PA**, **Rb**, **Rv 1**, Rv 2, **S**, **Sw 1**, Sw 2, T, V, Wo 1, **Wo 2**, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1	3	1					9	49	37	17	12
Karoo									1			

Pycnonotus nigricans (Vieill.) Red-eyed Bulbul

a. *Pycnonotus nigricans superior* Clancey

Pycnonotus nigricans superior Clancey, Bull. Br. Orn. Club, 79, 1959: 170. Mamathes, near Teyateyaneng, Lesotho.

Pycnonotus nigricans nigricans; Vincent, 1952: 64 (in part).

Pycnonotus nigricans; Macdonald, 1957: 116 (in part); McLachlan & Liversidge, 1957: 289 (in part); Praed & Grant, 1963: 37 (in part).

Replaces the preceding on the Karoo, except in the extreme south and west and along the Orange River, in which latter area the form is intermediate between *superior* and typical *nigricans*. A common species where fruits and berries are available.

B, BW 1, **BW 2**, BW 3, Cn, **D**, F, **H**, K, L, Lg, N 1, **N 2**, **N 3**, **N 4**, **P**, **PA**, **Pr**, R, Rb, Su 2, U, VW.

[b. *Pycnonotus nigricans tenebrior* Clancey

Pycnonotus barbatus tenebrior Clancey, Durban Mus. Novit., 4, 1955: 204. Mt. Currie, near Kokstad, Cape Province.

Pycnonotus xanthopygos layardi; Vincent, 1952: 64 (in part); Praed & Grant, 1963: 38 (in part).

Pycnonotus barbatus layardi; McLachlan & Liversidge, 1957: 290 (in part); C.B.C., 1963: 65.

On the relations between *barbatus* and *xanthopygos*, see White (1956*b*) and South African Ornithological Society, List Committee Report (1960).

A sight record from the Potberg needs confirmation.]

Genus PHYLLASTREPHUS Swains.

Phyllastrephus terrestris terrestris Swains. Terrestrial Bulbul

Phyllastrephus terrestris Swainson, Birds of western Africa, 1, 1837: 270. George.

Phyllastrephus terrestris terrestris; Vincent, 1952: 65; McLachlan & Liversidge, 1957: 290; Praed & Grant, 1963: 43.

A forest species which extends as far west as Montagu.

M, **MB**, **Sw 1**.

Genus ANDROPADUS Swains.

I cannot agree with Delacour (1943) in synonymizing this genus with *Pycnonotus*, from which its habits differentiate it markedly.

Andropadus importunus importunus (Vieill.) Sombre Bulbul

Turdus importunus Vieillot, Nouvelle dictionnaire d'histoire naturelle, 20, 1818: 266. George.

Andropadus importunus importunus; Vincent, 1952: 65; McLachlan & Liversidge, 1957: 293; Praed & Grant, 1963: 57; C.B.C., 1963: 44.

A forest species, found in forest patches throughout the Winter Rainfall area except in the Hottentots-Holland area, where it is inexplicably absent; and only a single record from north of Worcester.

Cl 1, Ct, L, M, **MB**, **O**, Rb, **Rv 1**, **S**, **Sw 1**, Sw 2, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										5	3	

Family **Muscicapidae**

Order and arrangement in this family follow Mayr & Amadon (1951).

Genus MUSCICAPA L.

Muscicapa striata (Pall.) Spotted Flycatcher

a. *Muscicapa striata striata* (Pall.)

Motacilla striata Pallas, in Vroeg's Catalogus . . . vogelen . . . dieren, Adumbratiuncula, 1764: 3. Holland.

Muscicapa striata striata; Vincent, 1952: 66; Macdonald, 1957: 116; McLachlan & Liversidge, 1957: 351; Praed & Grant, 1963: 71; C.B.C., 1963: 45.

A non-breeding, summer visitor from the Palaearctic, rather uncommon in the south but quite common further north where trees are available.

D, **K**, N 1, N 2, P, PA, Pr, R, **S**, U, V, **VW**, Wo 1.

b. *Muscicapa striata neumanni* Poche

Muscicapa griseola neumanni Poche, Orn. Mber., 12, 1904: 26 (*nom. nov.* for *Muscicapa griseola siberica* Neumann 1900, not *Muscicapa siberica* Gmelin 1789). Massailand, N. Tanganyika.

Muscicapa striata neumanni; Praed & Grant, 1963: 71.

This more eastern-breeding, paler race has been taken at Upington and Touws River.

U, Wo 3.

Muscicapa adusta adusta (Boie) Dusky Flycatcher

Butalis adusta Boie, Isis, 1828: col. 318. George.

Muscicapa adusta adusta; Vincent, 1952: 66; McLachlan & Liversidge, 1957: 351; C.B.C., 1963: 45.

Aleonax adustus adustus; Praed & Grant, 1963: 72.

A forest species, general in all the forest patches of the Winter Rainfall area in summer but largely migratory, moving north along the coastal strip in winter.

M, **MB**, O, Rv 1, **S**, **Sw 1**, T.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									1	15	12	5

Genus PARISOMA Swains.

Praed & Grant (1963) regard these birds as true warblers.

Parisoma subcaeruleum subcaeruleum (Vieill.) Tit-babbler

Sylvia subcaeruleum Vieillot, Nouvelle dictionnaire d'histoire naturelle, 11, 1817: 188. Gouritz River, Cape Province.

Parisoma subcaeruleum subcaeruleum; Vincent, 1952: 66; McLachlan & Liversidge, 1957: 353; Praed & Grant, 1963: 206; C.B.C., 1963: 45.

Subspecific revision, Clancey (1954*b*, 1959*c*).

Common in indigenous vegetation throughout. Occasional birds from the Karoo are indistinguishable from *P.s. cinerascens* Reichenow (Orn. Mber., 10, 1902: 77. Windhoek).

All districts except Ce 1, Ce 3, N 4, Rv 2, and Su 1. **BW 2, Ct, D, F, H, K, L, Lg, M, N 3, P, PA, Pr, Rb, Su 2, U, V, VW.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								6	9	3	1	1
Karoo			1							1		

Parisoma layardi Hartl. Fairy Tit-babbler

a. *Parisoma layardi layardi* Hartl.

Parisoma layardi Hartlaub, Ibis, 1862: 147. Swartland, Malmesbury District,

Cape Province; McLachlan & Liversidge, 1957: 353 (in part).

Parisoma layardi layardi; Vincent, 1952: 67 (in part); Praed & Grant, 1963: 208; C.B.C., 1963: 45.

Confined, so far as is known, to the Strandveld of the west coast, from Blouberg to Saldanha Bay. An uncommon, breeding species, which appears to move north out of the breeding season, having been taken at Port Nolloth in May (Clancey, 1963).

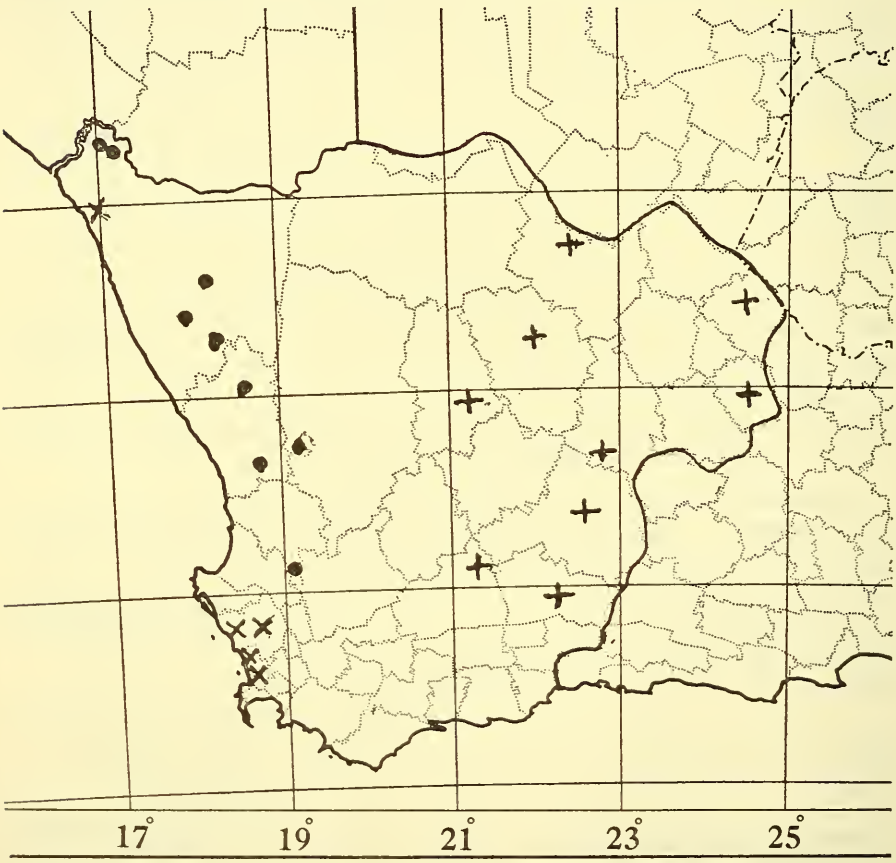
N 1, **S.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									1			

b. *Parisoma layardi aridicola* Winterbottom

Parisoma layardi aridicola Winterbottom, Bull. Br. Orn. Club, 78, 1958: 148.



Map 27. Distribution of subspecies of *Parisoma layardi*. Diagonal crosses: *P. l. layardi*; dots: *P. l. aridicola*; upright crosses: *P. l. subsolana*.

Noisabis, Richtersveld, Little Namaqualand; Praed & Grant, 1963: 208 (in part); C.B.C., 1963: 45.

Parisoma layardi layardi; Vincent, 1952: 67 (in part); Macdonald, 1957: 117.

Parisoma layardi; McLachlan & Liversidge, 1957: 353 (in part).

Replaces the preceding subspecies from about the Olifants River north to the Orange River, where it is chiefly an inhabitant of bushy kloofs.

C 2, Cl 1, Cl 2, N 1, **N 2, N 3, N 4, V.**

c. *Parisoma layardi subsolana* Clancey

Parisoma layardi subsolana Clancey, Durban Mus. Novit., 6, 1963: 251. Aprilskraal Siding, near Molteno, Cape Province.

Parisoma layardi layardi; Vincent, 1962: 67 (in part).

Parisoma layardi; McLachlan & Liversidge, 1957: 353 (in part).

Parisoma layardi aridicola; Praed & Grant, 1963: 208 (in part).

The Karoo race, with the same habitat preference as *aridicola*.

B, **BW 2, Cn**, Ct, F, L, **Lg, P, PA, Pr**, R, Rb, Su 2, U, **VW, W**, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo								2				

Genus BRADORNIS Smith

Bradornis mariquensis mariquensis Smith — Marico Flycatcher

Bradornis mariquensis A. Smith, Illustrations of the zoology of South Africa, Aves, 1847: pl. 113. Marico River, Transvaal; Vincent, 1952: 67; Macdonald, 1957: 118; McLachlan & Liversidge, 1957: 354; Praed & Grant, 1963: 79.

A northern species, recorded within our limits only from the Aughrabies Falls on the Orange River.

K.

Bradornis infuscatus (Smith) — Chat Flycatcher

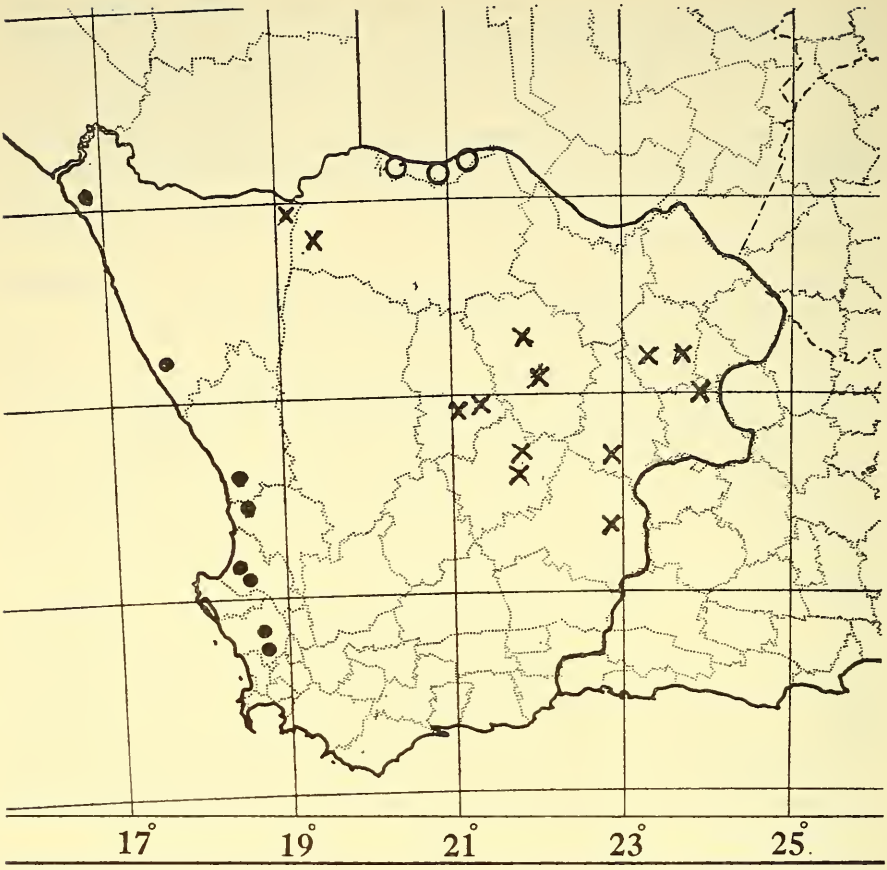
On subspecies, see Macdonald (1957), Clancey (1958*b*) and Winterbottom (1958*b*).

a. *Bradornis infuscatus infuscatus* (Smith)

Saxicola infuscata A. Smith, Illustrations of the zoology of South Africa, Aves, 1839: pl. 28. Between Olifants and Orange Rivers (restricted to Nieuwerust, Vanrhynsdorp District, Winterbottom, Ostrich 29, 1958: 157–159).

Bradornis infuscata infuscata; Vincent, 1952: 67; Macdonald, 1957: 120; C.B.C., 1963: 45.

Bradornis infuscatus infuscatus; McLachlan & Liversidge, 1957: 356; Praed & Grant, 1963: 81.



Map 28. Distribution of subspecies of *Bradornis infuscatus*. Dots: *B. i. infuscatus*; crosses: *B. i. seimundi*; open circles: *B. i. namaquensis*.

A west coast form, occurring below the coastal escarpment from Mamre to the Orange River mouth in bushy country.

Cl 1, N 1, S, V.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1	3			

b. *Bradornis infuscatus seimundi* O.-Grant

Bradornis infuscatus seimundi Ogilvie-Grant, Ibis, 1913: 636. Deelfontein; McLachlan & Liversidge, 1957: 356; Praed & Grant, 1963: 82.

Bradornis infuscata seimundi; Vincent, 1952: 67.

Replaces the preceding form on the Karoo east of the coastal escarpments of the west.

B, BW 1, **BW 2**, C 1, C 2, **Cn**, D, **F**, **H**, **K**, N 2, N 3, N 4, O, P, **PA**, Pr, R, **VW**, **W**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo										1	1	

c. *Bradornis infuscatus namaquensis* Macdonald

Bradornis infuscata namaquensis Macdonald, 1957: 119. Aarmhoup, Great Namaqualand.

Bradornis infuscata benguellensis; Vincent, 1952: 67 (in part).

Bradornis infuscatus benguellensis; McLachlan & Liversidge, 1957: 356 (in part).

Bradornis infuscatus namaquensis; Praed & Grant, 1963: 82.

Birds from Upington and Aughrabies belong to this northern form, there at the extreme south end of its range.

K, U.

Genus SIGELUS Cab.

Sigelus silens silens (Shaw) Fiscal Flycatcher

Lanius silens Shaw, General zoology, 7, 1809: 330. George.

Sigelus silens; Vincent, 1952: 68; McLachlan & Liversidge, 1957: 356; Praed & Grant, 1963: 85.

Sigelus silens silens; C.B.C., 1963: 45.

Widely distributed and common wherever there is sufficient growth of trees and bushes.

BW 1, **BW 2**, **Cl 1**, **Ct**, **H**, L, Lg, **M**, **MB**, N 3, **O**, P, **PA**, Pr, **Rb**, **Rv 1**, Rv 2, **S**, **Sw 1**, Sw 2, T, V, VW, Wo 1, Wo 2, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.		1						3	20	12	1	
Karoo									2	2	1	

Genus BATIS Boie

Batis capensis capensis (L.) Cape Batis

Muscicapa capensis Linnaeus, Systema naturae, ed. 12, 1, 1766: 327. Cape of Good Hope.

Batis capensis capensis; Vincent, 1952: 68; McLachlan & Liversidge, 1957: 360; Praed & Grant, 1963: 96; C.B.C., 1963: 45.

A forest bird confined to the Winter Rainfall area, except for two records from Beaufort West (perhaps in error for *B. pririt*) and one from dense poplar growth in western Calvinia. Common in its chosen habitat, sometimes ranging out into the surrounding Macchia to feed.

(BW 2), **C 2**, Ce 1, Cl 1, **Ct**, L, Lg, **M**, **MB**, O, PA, Rb, **Rv 1**, **S**, **Sw 1**, T, V, **Wo 1**, Wo 2.

Breeding	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1							1		21	30	4

Batis molitor molitor (Hahn & Küster) Chin-spot Batis

Muscicapa molitor Hahn & Küster, Vögel aus Asien, Afrika . . . , 20, 1850: pl. 2. South Africa (restricted to Baviaans R., eastern Cape).

Batis molitor molitor; Vincent, 1952: 681; McLachlan & Liversidge, 1957: 361; Praed & Grant, 1963: 99.

A skin from the Orange River in the South African Museum is the only record of this species from our area, where it must be an occasional straggler from further north and east.

H.

Batis pririt (Vieill.) Pririt Batis

a. *Batis pririt pririt* (Vieill.)

Muscicapa pririt Vieillot, Nouvelle dictionnaire d'histoire naturelle, 21, 1818: 486. Lower Orange River (corrected to Somerset East, Macdonald, 1957: 120).

Batis pririt; Vincent, 1952: 69 (in part); McLachlan & Liversidge, 1957: 361 (in part); Praed & Grant, 1963: 101 (in part); C.B.C., 1963: 65.

Widely distributed in the neighbourhood of Acacia belts on the Karoo, overlapping with *B. capensis* in the Little Karoo.

BW 1, **BW 2**, C 1, **Ce 3**, **Cn**, **Ct**, **H**, K, **L**, Lg, M, N 1, **N 2**, **N 3**, **N 4**, O, P, **PA**, **Pr**, Su 2, **Sw 2**, U, **V**, **VW**.

b. *Batis pririt affinis* (Wahlb.)

Platysteira affinis Wahlberg, Öfvers. K. VetenskAkad. Förh., 1885: 214. In Mimosaterrae Damararum (restricted to Okahandja, Lawson, Bull. Br. Orn. Club, 83, 1963: 31).

Replaces the preceding in the Orange River drainage to the north-west. K, N 1, N 2, N 4.

Genus STENOSTIRA Cab. & Bp.

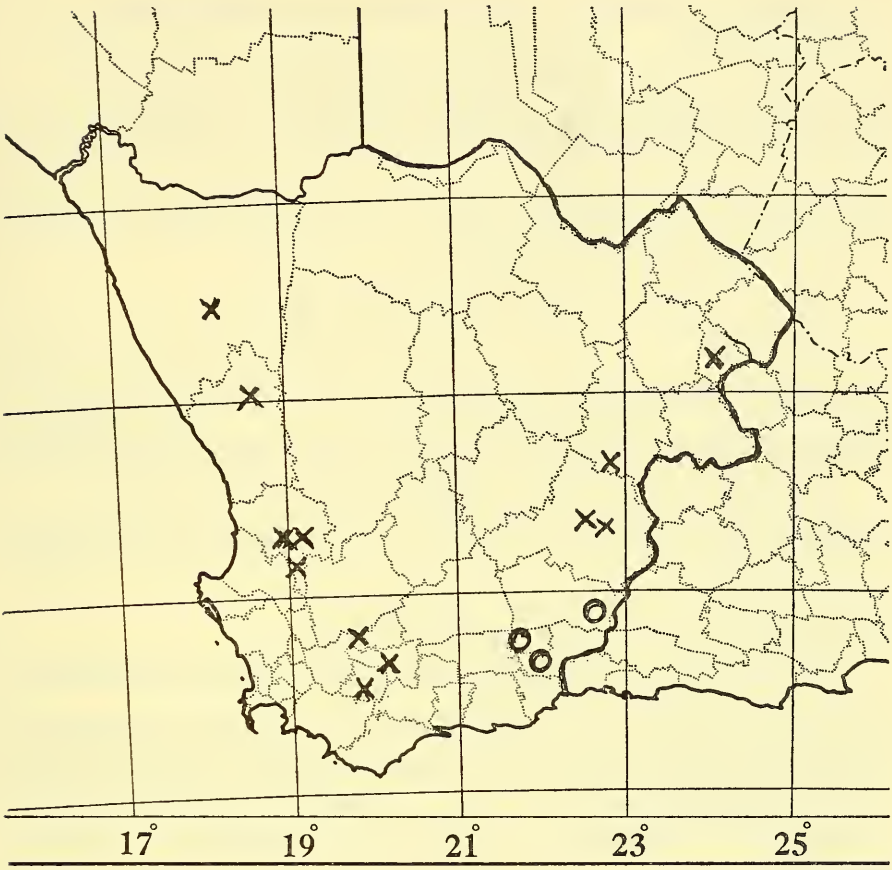
Stenostira scita (Vieill.) Fairy Flycatcher

a. *Stenostira scita scita* (Vieill.)

Muscicapa scita Vieillot, Nouvelle dictionnaire d'histoire naturelle, 21, 1818: 417. Lower Orange River (Clancey).

Stenostira scita; Vincent, 1952: 69 (in part); Macdonald, 1957: 212; McLachlan & Liversidge, 1957: 364 (in part); Praed & Grant, 1963: 108 (in part).

Stenostira scita scita; C.B.C., 1963: 46.



Map 29. Distribution of subspecies of *Stenostira scita*. Crosses: *S. s. scita*; open circles: *S. s. saturatior*.

Widely distributed on the Karoo, except where replaced by the next form; occasional in the Winter Rainfall area.

B, BW 1, **BW 2**, BW 3, C 2, **Ce 3**, **Cl 1**, **Cl 2**, **D**, F, **H**, Lg, **M**, N 1, N 2, **N 3**, N 4, P, R, **Rb**, Rv 2, **S**, Su 1, Su 2, Sw 1, U, **V**, **VW**, W, Wo 1, Wo 2, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.							1	1	6	5	1	

b. *Stenostira scita saturatior* Lawson

Stenostira scita saturatior Lawson, Durban Mus. Novit., 6, 1962: 218. Lelykpoortjie, Tarkastad.

Stenostira scita; Vincent, 1952: 69 (in part); McLachlan & Liversidge, 1957: 364 (in part); Praed & Grant, 1963: 108 (in part).

Replaces the preceding in the south-eastern and Little Karoo.
Ct, L, **O**, **PA**.

Genus TROCHOCERCUS Cab.

Trochocercus cyanomelas cyanomelas (Vieill.) Crested Flycatcher

Muscicapa cyanomelas Vieillot, Nouvelle dictionnaire d'histoire naturelle, 21, 1818: 473. George.

Trochocercus cyanomelas cyanomelas; Vincent, 1952: 69; McLachlan & Liversidge, 1957: 366; Praed & Grant, 1963: 112.

A forest species, extending east as far as the Langeberg.
Rb, Rv 1, **Sw 1**.

Genus TERPSIPHONE Gloger

Terpsiphone viridis granti (Roberts) Paradise Flycatcher

Tchitrea granti Roberts, Bull. Br. Orn. Club, 68, 1948: 129. Duivenhok River, Swellendam (new name for *Muscipeta perspicillata* Swainson, 1837, not *Muscipeta perspicillata* Stephens, 1826).

Terpsiphone viridis perspicillata; Vincent, 1952: 70; McLachlan & Liversidge, 1957: 367.

Tchitrea suahelica granti; Praed & Grant, 1963: 115.

Terpsiphone viridis granti; C.B.C., 1963: 46.

For reasons for the use of this name, see South African Ornithological Society, List Committee Report (1960).

A forest bird, reaching west to the Cape Peninsula and north-west to Tulbagh. A breeding, summer visitor which has adapted itself to oak woods as well as indigenous forest.

Ce 1, **Ct**, L, M, **MB**, O, PA, Rb, **Rv 1**, **S**, **Sw 1**, T, **Wo 1**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										15	19	4

Genus TURDOIDES Cretzsch.

[**Turdoides bicolor** (Jardine) Pied Babbler

Crateropus bicolor Jardine, Edinb. J. nat. geogr. Sci., 3, 1831; 97 and pl. 3. South Africa (restricted to Kuruman District, Cape Province).

Turdoides bicolor; Vincent, 1952: 63; Macdonald, 1957: 113; McLachlan & Liversidge, 1957: 286; Praed & Grant, 1963: 26.

May occur in the north-east.]

Genus CHAETOPS Swains.

Chaetops frenatus frenatus (Temm.) Rufous Rockjumper

Malurus frenatus Temminck, Nouveau recueil de planches coloriées d'oiseaux, 65, 1826: pl. 385. South Africa (restricted to Riviersonderend Mts., Cape Province, Vincent, Ostrich, 20, 1949: 150).

Chaëtops frenatus frenatus; Vincent, 1952: 64; McLachlan & Liversidge, 1957: 288; Praed & Grant, 1963: 152; C.B.C., 1963: 44.

Confined to the mountains of the south, from the Hottentots-Holland and the Cedarberg to the Swartberg; but absent from the Cape Peninsula.

Ce 1, Ce 2, Cl 1, O, Rb, **S**, Sw 1, **Wo 1**, Wo 2, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								9	7	2	1	

Genus HIPPOLAIS Baldenst.

Hippolais icterina (Vieill.) Icterine Warbler

Sylvia icterina Vieillot, Nouvelle dictionnaire d'histoire naturelle, 11, 1817: 194. France.

Hippolais icterina; Vincent, 1952: 77; Macdonald, 1957: 133; McLachlan & Liversidge, 1957: 316; Praed & Grant, 1963: 210.

An occasional straggler from the Palaearctic, recorded only from Carnarvon within our limits.

Cn.

Genus ACROCEPHALUS Neum.

On the limits of this genus, see White (1952*a*).

Acrocephalus arundinaceus arundinaceus (L.) Great Reed Warbler

Turdus arundinaceus Linnaeus, Systema naturae, ed. 10, 1758: 170. North Europe (restricted to Danzig).

Acrocephalus arundinaceus arundinaceus; Vincent, 1952: 77; Praed & Grant, 1963: 212.

Acrocephalus arundinaceus; McLachlan & Liversidge, 1957: 319.

A non-breeding, summer visitor from the Palaearctic, recorded within our limits only from Philipstown.

P.

Acrocephalus baeticatus (Vieill.) African Marsh Warbler

a. *Acrocephalus baeticatus baeticatus* (Vieill.)

Sylvia baeticata Vieillot, Nouvelle dictionnaire d'histoire naturelle, 11, 1817: 195. South Africa (restricted to Knysna, Grant & M.-Praed, Bull. Br. Orn. Club, 61, 1941: 29).

Acrocephalus baeticata baeticata; Vincent, 1952 (in part); C.B.C., 1963: 48.

Acrocephalus baeticatus baeticatus; McLachlan & Liversidge, 1957: 321 (in part); Praed & Grant, 1963: 214.

Primarily an inhabitant of reed-beds, but in the Winter Rainfall area also recorded from wattles in dry places; and by no means general in reeds there. Common in reed-beds on the Karoo.

B, BW 2, **C 2**, **Ce 2**, **Cl 1**, Cn, Ct, **D**, **F**, L, **Lg**, M, O, P, **PA**, R, **Rb**, **S**, Sw 1, T, V, **VW**, W, Wo 1, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								2	9	10	13	2

b. *Acrocephalus baeticatus hallae* White

Acrocephalus baeticatus hallae White, Bull. Br. Orn. Club, 80, 1960: 21. Brandberg, S.W.A.; Praed & Grant, 1963: 215.

Acrocephalus baeticata baeticata; Vincent, 1952 (in part); Macdonald, 1957: 133.

Acrocephalus baeticatus baeticatus; McLachlan & Liversidge, 1957: 321 (in part).

Replaces the preceding subspecies along the Orange River, at least as far east as Upington.

N 1, N 2, N 3, **N 4**, Pr, **U**.

Acrocephalus gracilirostris gracilirostris (Hartl.) African Reed Warbler

Calamoherpe gracilirostris Hartlaub, Ibis, 1864: 348. Liesbeek River, Cape Town.

Calamoecetor gracilirostris gracilirostris; Vincent, 1952: 79.

Galamoecetor gracilirostris; Macdonald, 1957: 134.

Calamocichla gracilirostris gracilirostris; McLachlan & Liversidge, 1957: 320; Praed & Grant, 1963: 225.

Acrocephalus gracilirostris gracilirostris; C.B.C., 1963: 48.

Common in reed-beds in the south-west, as far east as Swellendam; and also recorded from the north-east.

Cl 1, D, M, O, PA, Rb, **S**, Sw 1, T, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	2	1						6	19	25	12	5

Genus PHYLLOSCOPUS Boie

Phylloscopus trochilus trochilus (L.) Willow Warbler

Motacilla trochilus Linnaeus, Systema naturae, ed. 10, 1758: 188. England, south of the Thames (Clancey, Br. Birds, 43, 1950: 189).

Phylloscopus trochilus trochilus; Vincent, 1952: 78; McLachlan & Liversidge, 1957: 318; Praed & Grant, 1963: 228.

Phylloscopus trochilus; C.B.C., 1963: 48.

An uncommon and rather irregular, non-breeding, summer visitor from the Palaearctic to wooded places. *P.t. acredula* (L.) probably also occurs, but there are no definite records.

K, O, **PA**, **Pr**, S, Sw 1, VW, **Wo 3**.

Phylloscopus ruficapilla voelckeri (Roberts) Yellow-throated Seicercus

Seicercus ruficapilla voelckeri Roberts, Ostrich, 11, 1941: 117. Knysna; Vincent, 1952: 78; McLachlan & Liversidge, 1957: 359.

Seicercus ruficapillus ruficapillus; Praed & Grant, 1963: 229 (in part).

A forest species, recorded only from Swellendam within our limits, but no doubt occurring further east too.

Sw 1.

Genus BRADYPTERUS Swains.

Bradypterus babaecalus babaecalus (Vieill.) Swamp Warbler

Sylvia babaecala Vieillot, Nouvelle dictionnaire d'histoire naturelle, 11, 1817: 127. South Africa (restricted to Knysna).

Bradypterus baboecala baboecala; Vincent, 1952: 78; Praed & Grant, 1963: 217; C.B.C., 1963: 48.

Bradypterus babaecalus babaecalus; McLachlan & Liversidge, 1957: 322.

A common inhabitant of reed-beds and swamps in the Winter Rainfall area and extending north of it to Touws River and Oudtshoorn.

Cl 1, M, O, Rb, **S**, **Sw 1**, Wo 1, **Wo 3.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								3	20	7	4	

Bradypterus sylvaticus sylvaticus Sund. Scrub Warbler

Bradypterus sylvaticus Sundevall, Öfvers. K. VetenskAkad. Förh., 2, 10, 1852: 30. Knysna; Vincent, 1952: 79; McLachlan & Liversidge, 1957: 323; Praed & Grant, 1963: 219.

Bradypterus sylvaticus sylvaticus; C.B.C., 1963: 48.

On the races of this species, see Clancey (1955*b*).

An inhabitant of bramble thickets on the edges of forest, recorded only from Swellendam and the Cape Peninsula.

S, Sw 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									1			

Bradypterus victorini Sund. Victorin's Warbler

Bradypterus victorini Sundevall, K. svenska Vetensk Akad. Handl., 2, 10, 1858: 29. Knysna; Vincent, 1952: 79; Roberts, 1957: 323; Praed & Grant, 1963: 218; C.B.C., 1963: 49.

Inhabits lush growth, usually near water, in the Winter Rainfall area, and in places common.

Ce 1, Cl 1, Cl 2, **MB**, O, L, Rv 1, **S**, **Sw 1**, **Wo 1.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									2		2	

Genus EURYPTILA Sharpe

Euryptila subcinnamomea (Smith) Cinnamon-breasted Warbler

Drymoica subcinnamomea A. Smith, Illustrations of the zoology of South Africa, Aves, 1847: pl. 111, fig. 1. Kamiesberg, Little Namaqualand.

Euryptila subcinnamomea; Vincent, 1952: 79; Macdonald, 1957: 133; McLachlan & Liversidge, 1957: 324; Praed & Grant, 1963: 769.

A rare inhabitant of Karoo mountain in the east, north and west; but not recorded from the central area at all. Recently found breeding on Gray's Pass (Clanwilliam–Piketberg border) by R. & J. Martin.

D, Cl 1, **H**, K, N 1, **N 2**, **N 3**, P, R, S, V.

Genus SPHENOEACUS Strickl.

Sphenoeacus afer afer (Gmel.) Grassbird

Muscicapa afra Gmelin, C. a Linné . . . Systema naturae, ed. 10, 1, (2), 1789: 940. Cape of Good Hope.

Sphenoeacus afer afer; Vincent, 1952: 80; McLachlan & Liversidge, 1957: 327; Praed & Grant, 1963: 233; C.B.C., 1963: 49.

An inhabitant of well-grown Macchia in the Winter Rainfall area and there a common, breeding resident.

Ce 2, Cl 1, Cl 2, M, **MB**, O, PA, Rb, **Rv 1**, **S**, **Sw 1**, V, **Wo 1**, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.							8	32	20	12	4	1

Genus APALIS Swains

Apalis thoracica (Shaw & Nodder) Bar-throated Apalis

Revision, Lawson (1965).

a. *Apalis thoracica griseopyga* Lawson

Apalis thoracica griseopyga Lawson, Ostrich, 36, 1965: 4. Kersefontein, Berg River.

Dense bush along the west coast from Cape Town to Lambert's Bay.

S, V.

b. *Apalis thoracica capensis* Roberts

Apalis thoracica capensis Roberts, Ann. Transv. Mus., 18, 1936: 306. Paarl; Vincent, 1952: 80; McLachlan & Liversidge, 1957: 329; Praed & Grant, 1963: 237; C.B.C., 1963: 49.

The rest of the Winter Rainfall area, where common; and parts of the Karoo, where confined to thick riverine growth.

Ce 2, Cl 1, **L**, Lg, M, **MB**, O, **PA**, **Rv 1**, **S**, **Sw 1**, Sw 2, T, Wo 1, Wo 2, Wo 3.

c. *Apalis thoracica claudei* W. L. Scl.

Apalis claudei W. L. Sclater, Bull. Br. Orn. Club, 27, 1910: 15. Plettenberg Bay.

Overlaps with the preceding in the south-east and extends north across the Karoo to Beaufort West.

BW 2, Cn, Ct, H, **PA**, **Rb**, **Rv 1**.

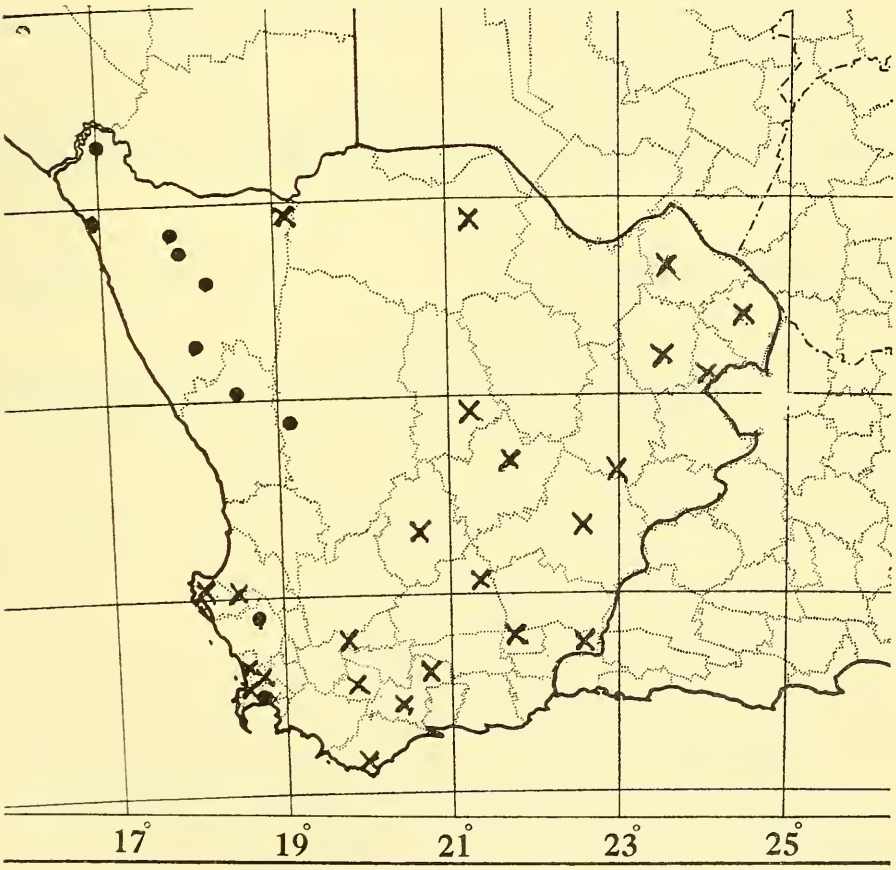
Breeding (all races)

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.							3	13	21	13	4	2
Karoo									1			

Genus SYLVIETTA Lafres.

Sylvietta rufescens (Vieill.) Long-billed Crombec

On the races of this species, see Clancey (1954*a*).



MAP 30. Distribution of subspecies of *Sylvietta rufescens*. Dots: *S. r. rufescens*; crosses: *S. r. diverga*.

a. *Sylvietta rufescens rufescens* (Vieill.)

Diceum rufescens Vieillot, Nouvelle dictionnaire d'histoire naturelle, 9, 1817: 407. Olifants River, Cape Province.

Sylvietta rufescens rufescens; Vincent, 1952: 81 (in part); Macdonald, 1957: 135; McLachlan & Liversidge, 1957: 328; Praed & Grant, 1963: 247 (in part); C.B.C., 1963: 49.

Common in scrub along the western coastal belt from the Olifants River to the Orange.

C 2, **Cl 1**, Cl 2, **N 1**, **N 2**, **N 3**, **S**, **V**.

Breeding (both subspecies)

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								3	10	8	3	
Karoo								2	1	2	2	

b. *Sylvietta rufescens diverga* Clancey

Sylvietta rufescens diverga Clancey, Bull. Br. Orn. Club, 74, 1954: 8. Cradock; McLachlan & Liversidge; 1957: 328; C.B.C., 1963: 49.

Sylvietta rufescens rufescens; Vincent, 1952: 81 (in part); Praed & Grant, 1963: 247 (in part).

Replaces the preceding in the south and east of the area.

B, **Bw 2**, Ce 2, Ce 3, Cn, **Ct**, **D**, **F**, **H**, **K**, L, **Lg**, M, **N 4**, **O**, **P**, **PA**, R, **Rb**, Rv 1, Rv 2, **S**, Su 1, **Su 2**, **Sw 1**, **Sw 2**, T, U, **VW**, **W**, Wo 1, Wo 2, **Wo 3**.

Genus EREMOMELA Sund.

Eremomela icteropygialis (Lafr.) Yellow-bellied Eremomela

On the races of this species in the south-west, see Winterbottom (1962*o*).

a. *Eremomela icteropygialis icteropygialis* (Lafres.)

Sylvietta icteropygialis Lafresnaye, Revue Zool., 1839: 258. Orange River.

Eremomela icteropygialis icteropygialis; Vincent, 1952: 81 (in part); Macdonald, 1957: 135; McLachlan & Liversidge, 1957: 318 (in part); Praed & Grant, 1963: 252.

Eremomela icteropygialis perimacha; Vincent, 1952: 82; McLachlan & Liversidge 1957: 318.

On the type locality of this species, see Clancey (1959*f*). Common on the Karoo in the north and north-west.

C 1, **Cn**, **H**, K, N 2, N 3, **P**, **Pr**, **U**, **V**.

b. *Eremomela icteropygialis saturatior* O.-Grant.

Eremomela saturatior Ogilvie-Grant, Bull. Br. Orn. Club, 25, 1910: 120. Deelfontein.

Eremomela icteropygialis saturatior; Vincent, 1952: 82; McLachlan & Liversidge, 1957: 318; Praed & Grant, 1963: 253; C.B.C., 1963: 49.

Replaces the preceding in the southern parts of the Karoo.

B, BW 1, **BW 2**, C 2, **Ce 3**, **Cn**, Ct, **D**, **F**, **Lg**, **M**, **O**, **PA**, **R**, **Su 2**, **V**, **VW**, **W**.

Eremomela gregalis (Smith) Karoo Green Warbler

On the races of this species, see Clancey (1963*a*).

a. *Eremomela gregalis gregalis* (Smith)

Malcorus gregalis Smith, S. Afr. comml Advert., 4, 1829: 213. Northern Little Namaqualand.

Eremomela gregalis gregalis; Vincent, 1952: 82 (in part); Macdonald, 1957: 136; McLachlan & Liversidge, 1957: 334 (in part); Praed & Grant, 1963: 255; C.B.C., 1963: 49.

Only in the Richtersveld and northern Strandveld, as far south as Port Nolloth. Intergrades with the next race at Pofadder.

N 1, **N 2**, N 3, **N 4**.

b. *Eremomela gregalis albigularis* Finsch & Hartl.

Eremomela albigularis Finsch & Hartlaub, Die Vögel von Ost-Afrika, 1870: 240. Natal (corrected to Beaufort West, Clancey, Durban Mus. Novit., 6, 1963: 255).

Widely distributed on the Karoo except where replaced by the preceding race.

B, BW 2, C 1, C 2, Ce 2, Ce 3, Cl 1, **Cn**, Ct, **F**, L, **Lg**, M, **O**, P, **PA**, R, Rv 2, Su 2, **Sw 2**, **U**, **V**, **VW**, **W**, Wo 1, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo								2		1		

Genus CAMAROPTERA Sund.

[**Camaroptera brachyura brachyura** (Vieill.) Green-backed Camaroptera

Sylvia brachyura Vieillot, Encyclopédie, méthodique, 2, 1820: 459. Pampoenkraal, near Knysna.

Camaroptera brachyura brachyura; Vincent, 1952: 82; McLachlan & Liversidge, 1957: 324; Praed & Grant, 1963: 264.

May occur in the extreme south-east.]

Genus CISTICOLA Kaup

Cisticola juncidis terrestris (Smith) Fan-tailed Warbler

Drymoica terrestris A. Smith, Illustrations of the zoology of South Africa, Aves, 1842: pl. 74, fig. 2. Between Latakoo and Kurrichane, Botswana.

Cisticola juncidis terrestris; Vincent, 1952: 83; McLachlan & Liversidge, 1957: 335; Praed & Grant, 1963: 276; C.B.C., 1963: 49.

An inhabitant of damp grassland, found chiefly along vlei margins in the Winter Rainfall area and in irrigated lucerne on the Karoo. It appears to be

a recent immigrant into the western Cape, first recorded about 1950 (MacLeod, 1952).

Cl 1, Ct, L, M, MB, N 1, N 3, O, **PA**, Pr, **Rb**, Rv 1, **S**, Sw 1, **T**, **U**, V, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	2	1					1	9	8	7	7	4

Cisticola aridula kalahari O.-Grant Desert Cisticola

Cisticola kalahari Ogilvie-Grant, Bull. Br. Orn. Club, 25, 1910: 121. Molopo River.

Cisticola aridula kalahari; Vincent, 1952: 83; Macdonald, 1957: 137; McLachlan & Liversidge, 1957: 336; Praed & Grant, 1963: 278.

Known only from irrigated lucerne lands at Beaufort West and Klaarstroom. I can find no evidence for its distribution all over the western Cape, as shown in the map in Praed & Grant (1963).

BW 2, PA.

Cisticola textrix textrix (Vieill.) Cloud-scraper

Sylvia textrix Vieillot, Nouvelle dictionnaire d'histoire naturelle, 11, 1817: 208. Cape of Good Hope.

Cisticola textrix textrix; Vincent, 1952: 83; McLachlan & Liversidge, 1957: 337; Praed & Grant, 1963: 279; C.B.C., 1963: 50.

Confined to short-grass places in the Winter Rainfall area and there common.

Cl 1, MB, O, Rb, Rv 1, **S**, **Sw 1**, T, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								3	9	7		

Cisticola subruficapilla (Smith) Grey-backed Cisticola

a. *Cisticola subruficapilla subruficapilla* (Smith)

Drymoica subruficapilla A. Smith, Illustrations of the zoology of South Africa, Aves, 1843: pl. 76, fig. 2. Cape Province (restricted to Cape Town, Lynes, Ibis, Suppl., 1930: 216).

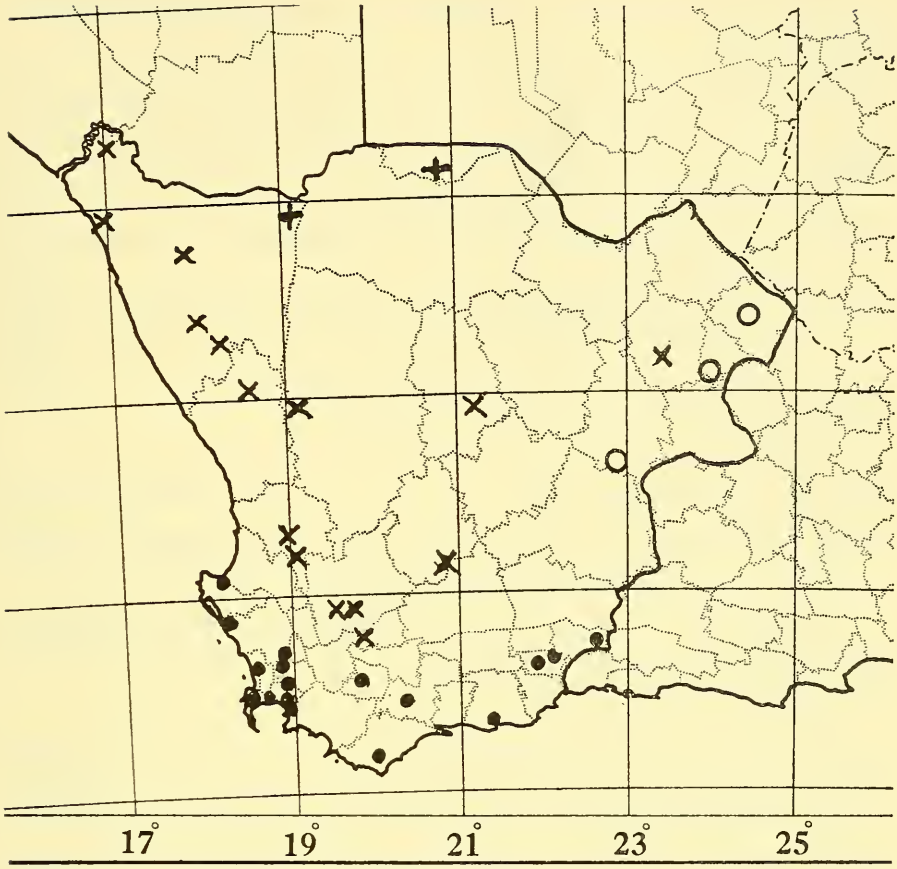
Cisticola subruficapilla subruficapilla; Vincent, 1952: 83; McLachlan & Liversidge, 1957: 340; Praed & Grant, 1963: 284; C.B.C., 1963: 50.

Abundant in the flat country of the south and west of the Winter Rainfall area.

Ce 1, Ct, L, M, MB, **O**, **Rb**, **Rv 1**, Rv 2, **S**, **Sw 1**, Sw 2, T, Wo 1, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.			1				2	41	78	33	14	4



Map 31. Distribution of subspecies of *Cisticola subruficapilla*. Dots: *C. s. subruficapilla*; diagonal crosses: *C. s. namaqua*; open circles *C. s. jamesi*; upright crosses: *C. s. karasensis*.

b. *Cisticola subruficapilla namaqua* Lynes

Cisticola subruficapilla namaqua Lynes, Ibis, Suppl., 1930: 216. Klipfontein; Vincent, 1952: 83; Macdonald, 1957: 138; McLachlan & Liversidge, 1957: 340; Praed & Grant, 1963: 285; C.B.C., 1963: 50.

Replaces the preceding from about the Cold Bokkeveld north and east across the Karoo to the Nieuwveld Mountains.

B, BW 1, BW 2, **C 2**, **Ce 2**, Ce 3, **Cl 1**, Cl 2, Cn, F, Lg, N 1, N 2, **N 3**, **N 4**, **PA**, Su 1, **Su 2**, **V**, **W**, **Wo 3**.

c. *Cisticola subruficapilla jamesi* Lynes

Cisticola subruficapilla jamesi Lynes, Ibis, Suppl., 1930: 217. Cradock; Vincent, 1952: 84; McLachlan & Liversidge, 1957: 340; Praed & Grant, 1963: 285.

North-east of the Nieuwveld Mountains, this subspecies takes the place of *namaqua*.

D, **P**, R, **VW**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo									1			

d. *Cisticola subruficapilla karasensis* (Roberts)

Drymodyta subruficapilla karasensis Roberts, Ostrich, 8, 1937: 103. Great Karas Mountains, S.W.A.

Cisticola subruficapilla karasensis; Vincent, 1952: 84; Macdonald, 1957: 138; McLachlan & Liversidge, 1957: 340; Praed & Grant, 1963: 285.

Just penetrates our area from South West Africa along the Orange River at Pella and Koegasbrug.

K, **Pr**, **N 4**.

Cisticola lais maculata Lynes — Wailing Cisticola

Cisticola lais maculata Lynes, Ibis, Suppl. 1930: 224–225. Berg River, Cape Province; Vincent, 1952: 84; McLachlan & Liversidge, 1957: 340; Praed & Grant, 1963: 287; C.B.C., 1963: 65.

Although the type locality is supposed to be the Berg River, there are no recent records from west of Oudtshoorn.

O, S.

Cisticola fulvicapilla silberbaueri (Roberts) — Neddicky

Dryodromas fulvicapilla silberbaueri Roberts, Ann. Transv. Mus., 6, 1919: 117. Paarl, Cape Province.

Cisticola fulvicapilla silberbaueri; Vincent, 1952: 85; McLachlan & Liversidge 1957: 339; Praed & Grant, 1963: 306; C.B.C., 1963: 50.

Replaces *C. subruficapilla* as the common *Cisticola* of the mountains of the Winter Rainfall area, extending north along the west coast ranges to Namaqualand, according to Stark & Sclater (1900–6), and reappearing again in the Philipstown District in the north-east. In the east of the area, also occurs in flat country, replacing *C. subruficapilla* where the vegetation is taller and more luxuriant.

Ce 2, Cl 1, Cl 2, **Ct**, L, Lg, M, **MB**, N 3, **O**, P, PA, Rb, Rv 1, Rv 2, **S**, **Sw 1**, T, **Wo 1**, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									7	5	2	1

Cisticola tinniens tinniens (Licht.) — Levaillant's Cisticola

Malurus tinniens Lichtenstein, Verzeichniss einer Sammlung von Säugethieren und Vögeln . . . Kaffernlande, 1842: 13. Kaffirland (restricted to Vaal

River, Transvaal, Stresemann, Annls Mus. r. Congo belge, N. Sér., 4to, Zool., 1, 1954: 81–82).

Cisticola tinniens tinniens; Vincent, 1952: 86; McLachlan & Liversidge, 1957: 344; Praed & Grant, 1963: 313; C.B.C., 1963: 50.

Inhabits wet places, not necessarily reed-beds; common and widespread in the Winter Rainfall area, more sparsely distributed on the Karoo, whence it has not been recorded from many districts.

C 2, Ce 2, **Cl 1**, **D**, F, L, M, MB, O, P, Rb, **S**, Sw 1, Sw 2, T, **V**, W, **Wo 1**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1						17	65	62	41	16	4
Karoo										1	1	

Genus PRINIA Horsfield

On the limits of this genus, see South African Ornithological Society, List Committee Report (1956).

Prinia pectoralis (Smith) Rufous-eared Warbler

On the races of the species, see Winterbottom (1957*b*).

a. *Prinia pectoralis pectoralis* (Smith)

Malcorus pectoralis A. Smith, S. Afr. comml Advert., 4, 213, 1829. North of the Olifants River (restricted to the Bitterfontein, Vanrhynsdorp District, Winterbottom, Bull. Br. Orn. Club, 77, 1957: 155–156).

Priniops pectoralis pectoralis; Vincent, 1952: 86.

Malcorus ocularis ocularis; Macdonald, 1957: 139.

Malcorus pectoralis pectoralis; McLachlan & Liversidge, 1957: 327.

Priniops pectoralis hewitti; Vincent, 1952: 86.

Malcorus ocularis hewitti; Macdonald, 1957: 139.

Malcorus pectoralis hewitti; McLachlan & Liversidge, 1957: 327.

Prinia pectoralis pectoralis; Praed & Grant, 1963: 325; C.B.C., 1963: 50.

A common Karoo species, penetrating the Winter Rainfall area on the Cold Bokkeveld and at Mamre and Tulbagh, where, however, it is rare. Obtained by Andrew Smith on Table Mountain, but not known there now.

B, BW 1, **BW 2**, **C 1**, **C 2**, **Ce 2**, **Ce 3**, Cl 1, Cl 2, **Cn**, Ct, **D**, **F**, **H**, **Lg**, M, **N 1**, **N 2**, **N 3**, **N 4**, **O**, **P**, **PA**, **Pr**, R, Rb, **S**, Su 2, **Sw 2**, T, **V**, **VW**, **W**, Wo 1, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo			1						1	1		

b. *Prinia pectoralis ocularia* (Smith)

Drymoica ocularis A. Smith, Illustrations of the zoology of South Africa, Aves, 1843: pl. 75, fig. 1. Northern Cape (restricted to Kuruman, Clancey, Bull. Br. Orn. Club, 80, 1960: 16).

Priniops pectoralis malopensis; Vincent, 1952: 86.
Malcorus ocularis malopensis; Macdonald, 1957: 139.
Malcorus pectoralis malopensis; McLachlan & Liversidge, 1957: 327.
Prinia pectoralis ocularia; Praed & Grant, 1963: 325.

On the reason for the use of *ocularia* for this form, see Clancey (1960*a*).

Replaces the preceding along the Orange River at Aughrabies and Upington.

K, U.

Prinia flavicans flavicans (Vieill.) Black-chested Prinia

Sylvia flavicans Vieillot, Encyclopédie méthodique, 2, 1820: 438. Great Namaqualand.
Prinia flavicans flavicans; Vincent, 1952: 87; Praed & Grant, 1963: 319.
Prinia flavicans; Macdonald, 1957: 139; McLachlan & Liversidge, 1957: 349.

On the races of this species, see Clancey (1957*b*).

A northern species, reaching its southern limits at Port Nolloth, Vanwyksvlei and Britstown. De Aar birds are intergrades with *P.f. ortleppi* Tristram.

B, Cn, **D**, **H**, **K**, N 1, **N 4**, P, **Pr**, **U**.

Prinia maculosa (Bodd.) Karoo Prinia

a. *Prinia maculosa maculosa* (Bodd.)

Motacilla maculosa Boddaert, Table des planches enluminéez . . . , 1783: 47. Cape of Good Hope.
Prinia maculosa maculosa; Vincent, 1952: 87 (in part); Macdonald, 1957: 140 (in part); McLachlan & Liversidge, 1957: 350 (in part); Praed & Grant, 1963: 321 (in part); C.B.C., 1963: 50 (in part).

Clancey (1963*a*) fixes the type locality as Swellendam. Since, however, *P.m. maculosa* occurs on the Cape of Good Hope itself, this is unnecessary and illegal.

Abundant in the Winter Rainfall and Karoo areas alike, except in the white coastal dunes of the west coast, where the next race replaces it; and in the north (Britstown, Hopetown, Prieska, Kenhardt), where *P. flavicans* occurs. The two species meet at Vanwyskvlei.

B, BW 1, **BW 2**, BW 3, C 1, **C 2**, Ce 1, Ce 2, Ce 3, **Cl 1**, Cl 2, **Cn**, **Ct**, **D**, **F**, L, **Lg**, **M**, MB, **N 2**, **N 3**, N 4, O, P, **PA**, R, **Rb**, **Rv 1**, Rv 2, **S**, Su 1, **Su 2**, **Sw 1**, Sw 2, T, **V**, VW, **W**, Wo 1, Wo 2, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	2						2	110	205	110	43	8
Karoo									2	1		

b. *Prinia maculosa psammophila* Clancey

Prinia maculosa psammophila Clancey, Durban Mus. Novit., 6, 1963: 257. McDougall Bay, Port Nolloth.

Prinia maculosa maculosa; Vincent, 1952: 87 (in part); Macdonald, 1957: 140 (in part); McLachlan & Liversidge, 1957: 350 (in part); Praed & Grant, 1963: 32 (in part); C.B.C., 1963: 50 (in part).

Confined to the coastal dunes from Saldanha Bay to the Orange River.

Cl 1, **N 1**, **S**, V.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.							1	12	14	2	1	

Prinia substriata (Smith) White-breasted Prinia

Drymoica substriata A. Smith, Illustrations of the zoology of South Africa, Aves, 1842: pl. 72, fig. 1. Olifants River, Cape Province.

Prinia substriata; Vincent, 1952: 87; Praed & Grant, 1963: 322; C.B.C., 1963: 50.

Burnesia substriata; McLachlan & Liversidge, 1957: 350.

An inhabitant of Acacia belts along watercourses in the Karoo, extending south to the lower Olifants River, Cogman's Kloof, Calitzdorp and Oudtshoorn.

BW 1, **BW 2**, C 2, Ce 3, Cn, Ct, D, **F**, **H**, **K**, L, **Lg**, M, N 1, N 2, N 3, N 4, O, **PA**, Pr, Rb, S, **Su 1**, Su 2, Sw 2, U, **V**, **VW**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo										1		

Genus TURDUS L.

[**Turdus philomelos clarkei** Hart. Song Thrush

Turdus philomelos clarkei Hartert, Bull. Br. Orn. Club, 23, 1909: 54. Tring, Hertfordshire.

Turdus ericetorum; Praed & Grant, 1963: 133.

Turdus philomelos ericetorum; C.B.C., 1963: 65.

Introduced into the Cape Peninsula at the beginning of the century and established itself for a while, but no records since 1937 and now extinct.]

Turdus olivaceus L. Olive Thrush

a. *Turdus olivaceus olivaceus* L.

Turdus olivaceus Linnaeus, Systema naturae, ed. 12, 1, 1766: 292. Cape of Good Hope.

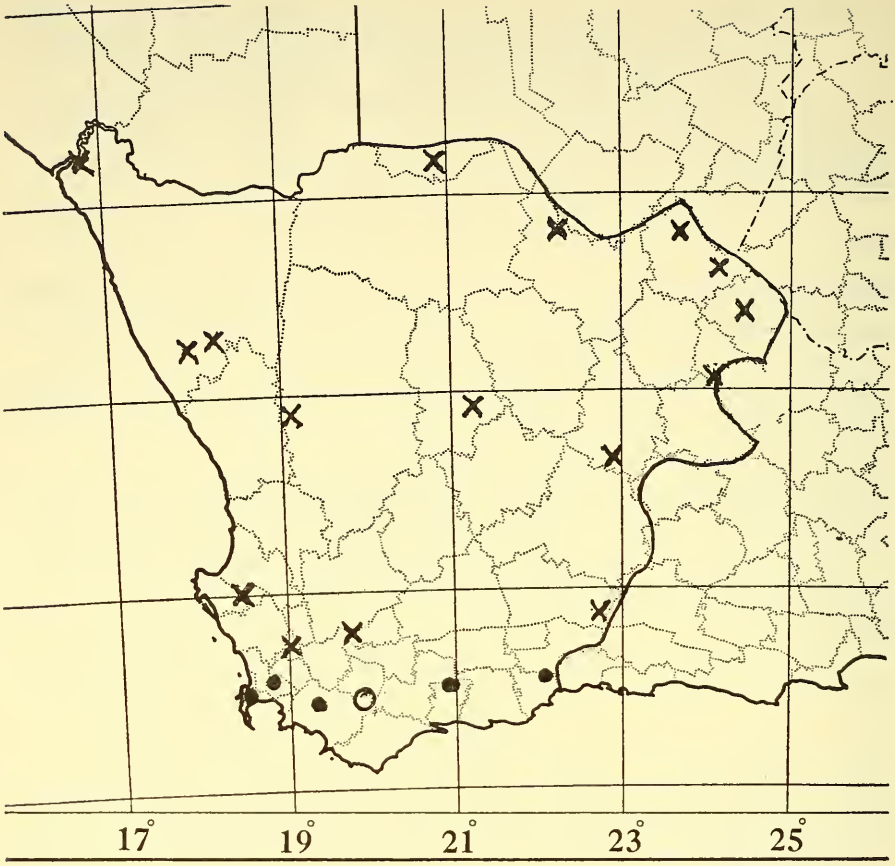
Turdus olivaceus olivaceus; Vincent, 1952: 70; McLachlan & Liversidge, 1957: 294; Praed & Grant, 1963: 130 (in part); C.B.C., 1963: 46.

Common in forests, gardens and wattles in the south.

Ce 1, Cl 1, Ct, L, M, **MB**, O, Rb, Rv 1, **S**, **Sw 1**, **T**, Wo 1, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	5	13	7	6	2	2	1	16	25	38	14	7



Map 32. Distribution of subspecies of *Turdus olivaceus*. Dots: *T. o. olivaceus*; crosses: *T. o. smithi*; open circles: *T. o. pondoensis*.

b. *Turdus olivaceus smithii* Bp.

Turdus smithii Bonaparte, Conspectus generum avium, 1, 1850: 274. South Africa (restricted to Philippolis, Macdonald, 1957: 122).

Turdus olivaceus smithii; Vincent, 1952: 71; Macdonald, 1957: 121; McLachlan & Liversidge, 1952: 294; Praed & Grant, 1963: 131; C.B.C., 1963: 46.

Widely distributed in Acacia belts and gardens on the Karoo and on the west coast, from about Verlorenvlei north.

BW 2, **C 2**, Cl 1, **D**, **H**, K, Lg, **N 1**, N 2, **N 3**, N 4, **P**, **PA**, Pr, R, **S**, Su 2, **U**, V, **VW**, **W**, Wo 1, **Wo 3**.

[**Turdus litsitsirupa litsitsirupa** (Smith) Ground-scraper Thrush

Merula litsitsirupa A. Smith, Report of the expedition for exploring central Africa, 1836: 45. Between Orange River and the Tropic.

Turdus litsitsirupa litsitsirupa; Vincent, 1952: 70; McLachlan & Liversidge, 1957: 295.
Psophocichla litsitsirupa litsitsirupa; Praed & Grant, 1963: 135.

May occur in the north-east, as known from Colesberg.]

Genus MONTICOLA Boie

Monticola rupestris (Vieill.) Cape Rock Thrush

Turdus rupestris Vieillot, Nouvelle dictionnaire d'histoire naturelle, 20, 1818: 281. Table Mountain, Cape Town.
Monticola rupestris; Vincent, 1952: 71; McLachlan & Liversidge, 1957: 296; Praed & Grant, 1963: 138; C.B.C., 1963: 46.

A mountain species of the south and east.

BW 2, C 2, Ce 1, Ce 2, **Cl 1**, Cl 2, Ct, D, **L**, Lg, **M**, MB, O, PA, Rb, **S**, Sw 1, T, **V**, **VW**, Wo 1, **Wo 2**, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	2	1							1	1	1	2

Monticola explorator (Vieill.) Sentinel Rock Thrush

Turdus explorator Vieillot, Nouvelle dictionnaire d'histoire naturelle, 20, 1818: 260. Mountains of the Cape of Good Hope.
Monticola explorator; Vincent, 1952: 71; McLachlan & Liversidge, 1957: 297; Praed & Grant, 1963: 138; C.B.C., 1963: 46.

Common on mountains in the Winter Rainfall area; less numerous on the Karoo.

BW 2, Ce 2, Cl 1, **H**, O, P, PA, R, **S**, **Sw 1**, **T**, U, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									1		2	

Monticola brevipes (Waterh.) Short-toed Rock Thrush

Petrocincla brevipes Waterhouse, in Alexander's An expedition . . . into the interior of Africa, 2, 1838: 263. Tans Mountains, near Walvis Bay.
Monticola brevipes brevipes; Vincent, 1962: 71; Macdonald, 1957: 122.
Monticola brevipes; Roberts, 1957: 297; Praed & Grant, 1963: 139.

Replaces the preceding in the extreme north-west.

N 1, N 3, N 4, P, Pr, R.

Genus OENANTHE Vieill.

Oenanthe monticola monticola Vieill. Mountain Chat

Oenanthe monticola Vieillot, Nouvelle dictionnaire d'histoire naturelle, 21, 1818: 434. Namaqualand.

Oenanthe monticola monticola; Vincent, 1952: 71; Macdonald, 1957: 123; McLachlan & Liversidge, 1957: 301; Praed & Grant, 1963: 142; C.B.C., 1963: 46.

Common on rocky ground throughout the western Cape except in the extreme south-west and south.

All districts except BW 3, C 1, Ct, Rv 1, and Rv 2: **Ce 2, Cl 1, Cn, D, H, N 2, N 3, N 4, PA, Pr, S, T, U, V, VW, Wo 3.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										9	3	1

Oenanthe pileata (Gmel.) Capped Wheatear

a. *Oenanthe pileata pileata* (Gmel.)

Motacilla pileata Gmelin, C. a. Linné . . . Systema naturae, ed. 13, 1, (2), 1789: 965. Cape of Good Hope.

Oenanthe pileata pileata; Vincent, 1952: 72; Macdonald, 1957: 128; McLachlan & Liversidge, 1957: 302; Praed & Grant, 1963: 144; C.B.C., 1963: 47.

Widely distributed on open ground in the Karoo and Winter Rainfall areas and in places (especially the Swartland of the Malmesbury area) common.

B, BW 2, **C 2**, Ce 1, Cl 1, Cl 2, Cn, **D**, F, **H**, K, Lg, **M**, MB, N 1, **N 3**, N 4, O, **P**, R, Rb, Rv 1, S, Su 1, Sw 1, T, U, **V**, VW, W, **Wo 1**, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1	13	8	2	

b. *Oenanthe pileata neseri* Macd.

Oenanthe pileata neseri Macdonald, Ostrich, 23, 1952: 161. Erongo Mountain, S.W.A.; Praed & Grant, 1963: 145.

Oenanthe pileata livingstonii; Vincent, 1952: 72 (in part); McLachlan & Liversidge, 1957: 302 (in part).

A poorly defined race of doubtful validity, recorded within our limits only from Grobelaarshoop, between Upington and Prieska, probably as an off-season vagrant.

K, Pr.

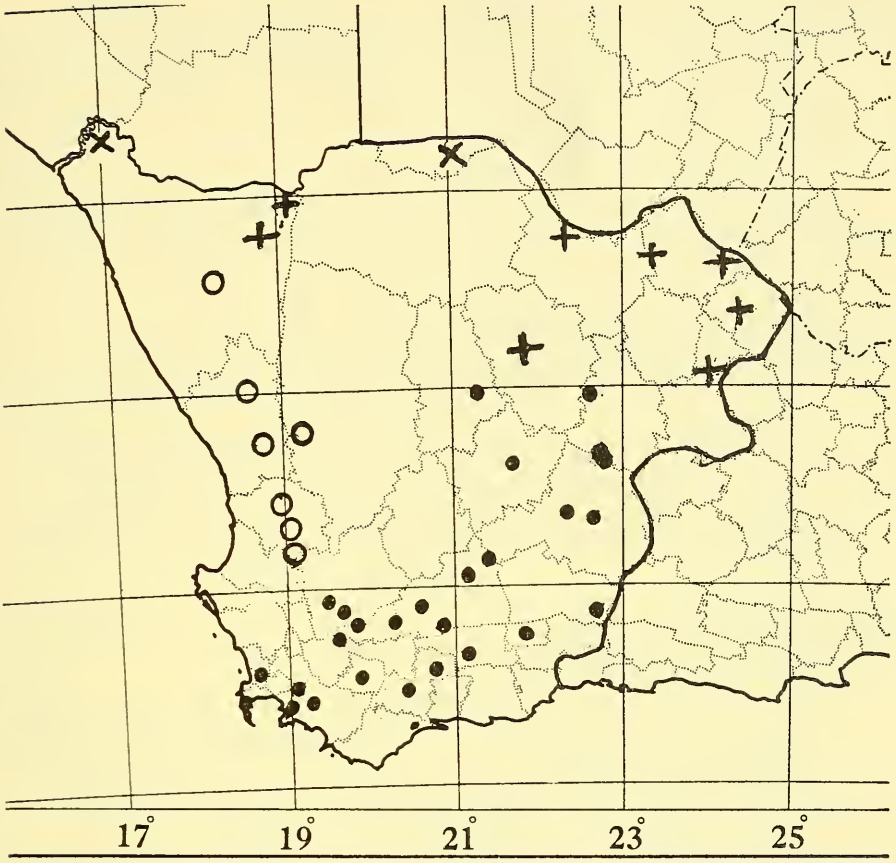
Genus CERCOMELA Bp.

Cercomela familiaris (Steph.) Familiar Chat

For races of this species, see South African Ornithological Society, List Committee Report (1956) and Clancey (1962).

a. *Cercomela familiaris familiaris* (Steph.)

Saxicola familiaris Stephens, General zoology, 13 (2), 1826: 241. South Africa (restricted to Table Mountain, Cape Town, Macdonald, 1957: 129).



Map 33. Distribution of subspecies of *Cercomela familiaris*. Dots: *C. f. familiaris*; open circles: *C. f. richardi*; upright crosses: *C. f. hellmayri*; diagonal crosses: *C. f. galtoni*.

Cercomela familiaris familiaris; Vincent, 1952: 721; Macdonald, 1957: 129; McLachlan & Liversidge, 1957: 303 Praed & Grant, 1963: 147; C.B.C., 1963: 47.

Cercomela familiaris richardi Macdonald, 1957: 129; Praed & Grant, 1963: 149.

The southern Cape from Cape Town and the Richtersveld east across the Karoo. An abundant resident where there are hills and rocks.

BW 1, **BW 2**, **C 2**, Ce 1, **Ce 2**, **Ce 3**, **Cl 1**, Cl 2, **Ct**, **F**, **L**, **Lg**, **M**, MB, N 1, **N 3**, O, **PA**, **Rb**, Rv 1, Rv 2, **S**, Su 1, Su 2, **Sw 1**, **Sw 2**, T, V, **VW**, **W**, Wo 1, **Wo 2**, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								2	10	13	7	2
Karoo								1	1	1	1	

b. *Cercomela familiaris hellmayri* (Reichw.)

Saxicola familiaris hellmayri Reichenow, Orn. Mber., 10, 1902: 78. South bank of Limpopo River, north of Pietersburg (restricted to Beit Bridge, Macdonald, Ibis, 95, 1953: 73).

Cercomela familiaris hellmayri; Vincent, 1952: 72; McLachlan & Liversidge, 1957: 303; Praed & Grant, 1963: 148.

Replaces *familiaris* in the north-east, west to Prieska and Vanwyksvlei. Partially migratory, as an off-season example has been taken at Barrydale.

B, **Cn**, **D**, **H**, K, **N 4**, **P**, **Pr**, R, **Sw 2**.

c. *Cercomela familiaris galtoni* (Strickl.)

Erythropygia galtoni Strickland, Jardine's Contr. Orn., 1852: 147. Damaraland (restricted to Otjimbingwe, Swakop River, Macdonald, Ibis, 95, 1953: 73).

Cercomela familiaris galtoni; Vincent, 1952: 72; McLachlan & Liversidge, 1957: 303; Macdonald, 1957: 130; Praed & Grant, 1963: 147.

Northern Little Namaqualand, east along the Orange River to Upington.

N 2, **Pr**, **U**.

Cercomela tractrac (Wilkes) Tractrac Chat

a. *Cercomela tractrac tractrac* (Wilkes)

Motacilla tractrac (Wilkes), Encyclopaedia Londinensis, 16, 1817: 89. Antiniquois country (restricted to Uniondale, Cape Province, Macdonald, 1957: 123–125).

Cercomela tractrac tractrac; Vincent, 1952: 72 (in part); McLachlan & Liversidge, 1957: 304 (in part); C.B.C., 1963: 47.

Oenanthe tractrac tractrac; Macdonald, 1957: 125 (in part); Praed & Grant, 1963: 145 (in part).

Common on the Karoo, penetrating the Winter Rainfall area only to Piketberg, in the north-west, and there uncommon.

B, BW 1, **BW 2**, C 1, **C 2**, **Ce 3**, Cn, **D**, **F**, **H**, K, **Lg**, **N 1**, **N 2**, **N 3**, **N 4**, O, P, PA, Pr, R, S, Su 1, Su 2, U, V, VW, **W**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										1		

b. *Cercomela tractrac nebulosa* Clancey

Cercomela tractrac nebulosa Clancey, Durban Mus. Novit., 6, 1962: 186. McDougall Bay, south of Port Nolloth.

Cercomela tractrac tractrac; Vincent, 1952: 72 (in part); McLachlan & Liversidge, 1957: 304 (in part).

Oenanthe tractrac tractrac; Macdonald, 1957: 125 (in part); Praed & Grant, 1963: 145 (in part).

Replaces the preceding on the white sand dunes between McDougall Bay and the mouth of the Orange River.

N 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo								1				

Cercomela sinuata (Sund.) Sickle-winged Chat

a. *Cercomela sinuata sinuata* (Sund.)

Luscinia sinuata Sundevall, Öfvers. K. VetenskAkad. Handl., 2, 3, 1857: 44. Saldanha Bay, Cape Province (Gyldenstolpe, Ark. Zool., 1914: 35).

Cercomela sinuata; Vincent, 1952: 72 (in part); McLachlan & Liversidge, 1957: 304 (in part); C.B.C., 1963: 47.

Emarginata sinuata sinuata; Praed & Grant, 1963: 150 (in part).

Common in open places in the Winter Rainfall area, less general in the southern Karoo.

Ce 1, Ce 2, Ce 3, Cl 1, Cl 2, Lg, **M**, MB, O, PA, R, Rb, Rv 1, **S**, Su 1, Su 2, Sw 1, **Sw 2**, T, Wo 1, **Wo 2**, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								8	5	5	6	
Karoo										1	1	

b. *Cercomela sinuata ensifera* Clancey

Cercomela sinuata ensifera Clancey, Durban Mus. Novit., 5, 1958: 102. Asbestos Mountains, Griqualand West.

Cercomela sinuata; Vincent, 1952: 72 (in part); McLachlan & Liversidge, 1957: 304 (in part).

Emarginata sinuata sinuata; Praed & Grant, 1963: 150 (in part).

Replaces the preceding on the northern Karoo.

BW 2, **C 2**, Cn, D, H, K, N 1, N 3, **P**, Pr, **V**, VW.

Cercomela schlegelii pollux (Hartl.) Karoo Chat

Saxicola pollux Hartlaub, Proc. zool. Soc. Lond. for 1865, 1866: 747. Karoo (Traka, Willowmore District, Cape Province, Sharpe, in Layard's The birds of South Africa, 2nd ed., 1877: 244).

Cercomela pollux pollux; Vincent, 1952: 73.

Oenanthe schlegelii pollux; Macdonald, 1957: 128.

Cercomela schlegelii pollux; McLachlan & Liversidge, 1957: 301; C.B.C., 1963: 47.

Cercomela schlegelii namaquensis; McLachlan & Liversidge, 1957: 301 (in part).

Emarginata schlegelii pollux; Praed & Grant, 1963: 151.

C.s. namaquensis Sclater is extra-limital, see Macdonald (1957) and Winterbottom (1959*d*), but Pofadder birds are intermediate.

Common on the Karoo, including the Worcester–Robertson enclave in the south-west.

All districts except Ce 1, MB, Rv 1, and T: **BW 2, C 2, Ce 2, D, H, Lg, N 3, O, P, PA, Rb, Sw 1, Sw 2, U, V, VW, Wo 3.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									1			
Karoo							1	2		2		

Genus THAMNOLAEA Cab.

[**Thamnolaea cinnamomeiventris cinnamomeiventris** (Lafres.) Mocking Chat

Turdus cinnamomeiventris Lafresnaye, Revue Zool. 1836: pls. 55, 56. Cape of Good Hope (restricted to Great Fish River, Clancey).

Thamnolaea cinnamomeiventris cinnamomeiventris; Vincent, 1952: 73; McLachlan & Liversidge, 1957: 305; Praed & Grant, 1963: 154.

A sight record from Beaufort West needs confirmation.]

Genus MYRMECOCICHLA Cab.

Myrmecocichla formicivora formicivora (Vieill.) Ant-eating Chat

Oenanthe formicivora Vieillot, Nouvelle dictionnaire d'histoire naturelle, 21, 1818: 421. Sundays River, Eastern Cape Province.

Myrmecocichla formicivora formicivora; Vincent, 1952: 73; Macdonald, 1957: 130; McLachlan & Liversidge, 1957: 306; Praed & Grant, 1963: 159; C.B.C., 1963: 47.

Locally common on the Karoo north of the Swartberg Mountains and penetrates the Winter Rainfall area on the west as far south as the Malmesbury, Somerset West, and Wellington districts. This last appears to be a recent extension of range.

B, BW 1, **BW 2**, C 1, **C 2**, **Cl 1**, Cl 2, Cn, **D**, **F**, **H**, K, **Lg**, N 1, **N 3**, **N 4**, **P**, **Pr**, R, S, Su 1, Su 2, U, **V**, **VW**, W.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1			1	

Genus SAXICOLA Bechst.

Saxicola torquata (L.) Stonechat

Revision, Clancey (1961*a*) and Courtenay-Latimer (1961).

a. *Saxicola torquata torquata* (L.)

Muscicapa torquata Linnaeus, Systema naturae, ed. 12, 1, 1766: 328. Cape of Good Hope.

Saxicola torquata torquata; Vincent, 1952: 73 (in part); McLachlan &

Liversidge, 1957: 307 (in part); Praed & Grant, 1963: 160 (in part); C.B.C., 1963: 47.

Saxicola torquata caffra; Vincent, 1952: 73; McLachlan & Liversidge, 1957: 307.

Common on the flatter parts of the Winter Rainfall area, penetrating the Karoo as far north as Laingsburg and the Little Karoo and reappearing again in the north-east, west as far as Carnarvon and Melton Wold.

BW 2, **C 2**, Ce 1, Ce 2, **Cl 1**, Cl 2, Cn, **D**, H, Lg, M, MB, **N 3**, O, P, PA, R, Rb, Rv 1, Rv 2, **S**, **Sw 1**, Sw 2, T, VW, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1						6	49	39	15	3	

b. *Saxicola torquata clanceyi* Latimer

Saxicola torquata clanceyi Courtenay-Latimer, Durban Mus. Novit., 6, 1961: 90. Wallekraal, Little Namaqualand.

Saxicola torquata torquata; Vincent, 1952: 73 (in part); McLachlan & Liversidge, 1957: 307 (in part); Praed & Grant, 1963: 160 (in part).

Replaces the preceding in the western coastal belt from the Olifants River mouth north.

N 1, V.

Genus COSSYPHA Vig.

Cossypha dichroa dichroa (Gmel.) Chorister Robin

Muscicapa dichroa Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1 (2)' 1789: 949. South Africa (restricted to Knysna, Clancey).

Cossypha dichroa; Vincent, 1952: 74; McLachlan & Liversidge, 1957: 307; Praed & Grant, 1963: 163.

A forest species which just enters our area at Ruiterbos, Mossel Bay District.

MB.

Cossypha caffra (L.) Cape Robin

a. *Cossypha caffra caffra* (L.)

Motacilla caffra Linnaeus, Mantissa plantarum generum, 1771: 527. Cape of Good Hope.

Cossypha caffra caffra; Vincent, 1952: 74; Macdonald, 1957: 131; McLachlan & Liversidge, 1957: 310; Praed & Grant, 1963: 169; C.B.C., 1963: 48.

Common in forest, thick Protea bush, wattles and gardens in the Winter Rainfall area.

Ce 1, Ce 2, **Cl 1**, Cl 2, Ct, L, **M**, **MB**, O, **Rb**, **Rv 1**, Rv 2, **S**, **Sw 1**, Sw 2, T, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.						1	39	150	140	98	14	

b. *Cossypha caffra namaquensis* W. L. Scl.

Cossypha caffra namaquensis W. L. Sclater, Ibis, 1911: 415. Klipfontein; Vincent, 1952: 74; Macdonald, 1957: 131; McLachlan & Liversidge, 1957: 310; Praed & Grant, 1963: 170.

Replaces the preceding on the Karoo, where confined to dense bush along watercourses and to gardens.

BW 2, **C 2**, D, F, **H**, K, Lg, **N 1**, **N 2**, **N 3**, **N 4**, P, **PA**, **Pr**, R, Su 2, U, V, **VW**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo									1	1		

Genus ERYTHROPYGIA Smith

On the limits and position of this genus, see South African Ornithological Society, List Committee Report (1958: 40).

[**Erythropygia leucophrys leucophrys** (Vieill.) White-browed Scrub Robin

Sylvia leucophrys Vieillot, Nouvelle dictionnaire d'histoire naturelle, 11, 1817: 191. Gamtoos River, eastern Cape Province.

Erythropygia leucophrys leucophrys; Vincent, 1952: 76; McLachlan & Liversidge, 1957: 313; Praed & Grant, 1963: 181.

May occur in the extreme south-east.]

Erythropygia paena paena Smith Kalahari Scrub Robin

Erythropygia paena A. Smith, Report of the expedition for exploring central Africa, 1836: 46. Between Latakoo and the Tropic = North of Kuruman, northern Cape Province (South African Ornithological Society, List Committee Report, 1960).

Erythropygia paena paena; Vincent, 1952: 76; McLachlan & Liversidge, 1957: 312; Praed & Grant, 1963: 186.

Erythropygia poena; Macdonald, 1957: 132.

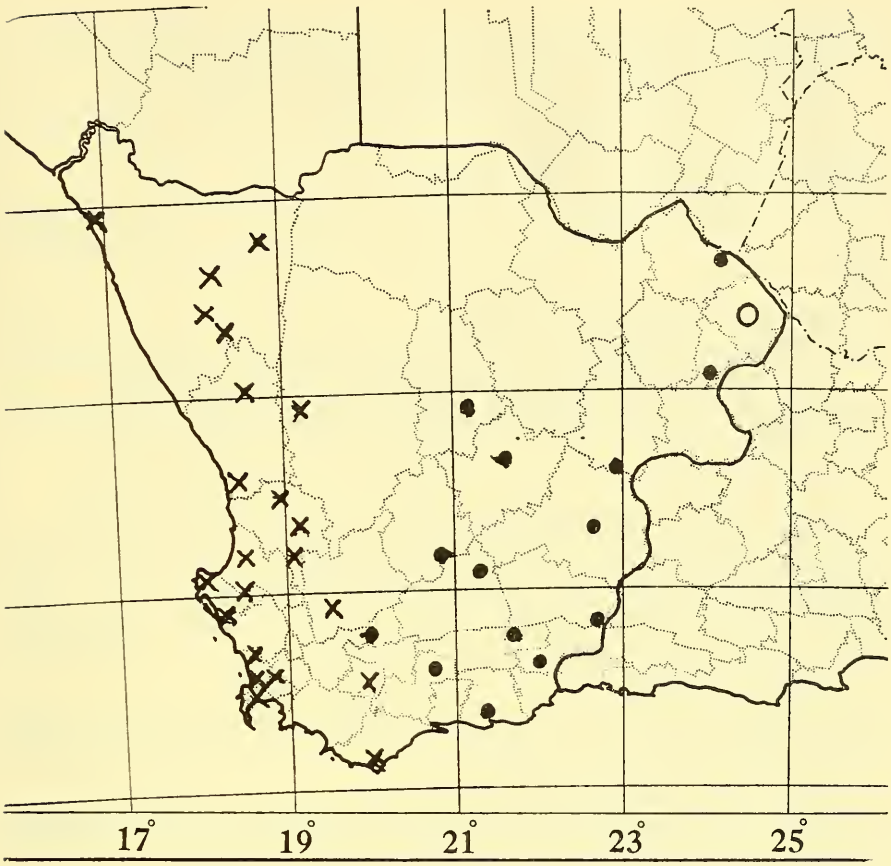
On the races of this species, see Clancey (1957*c*).

A Kalahari species, entering our area only along the Orange River from Upington to Hopetown.

H, K, **Pr**, **U**.

Erythropygia coryphaeus (Less.) Karoo Robin

On the races of this species, see Macdonald (1952*b*) and Clancey (1959*b*).



Map 34. Distribution of subspecies of *Erythropygia coryphaea*. Dots: *E. c. coryphaea*; open circles: *E. c. abbotti*; crosses: *E. c. cinerea*.

a. *Erythropygia coryphaeus coryphaeus* (Less.)

Sylvia coryphaeus Lesson, Traité d'ornithologie, 1831: 419. Sundays River, eastern Cape Province.

Erythropygia coryphaeus coryphaeus; Vincent, 1952: 77 (in part); Macdonald, 1957: 132; McLachlan & Liversidge, 1957: 311 (in part).

Erythropygia coryphaea coryphaea; Praed & Grant, 1963: 188 (in part).

Only in the extreme north-east.

P.

b. *Erythropygia coryphaeus cinerea* Macd.

Erythropygia coryphaeus cinereus Macdonald, Bull. Br. Orn. Club, 72, 1952: 91. Near Port Nolloth; Macdonald, 1957: 132; McLachlan & Liversidge, 1957: 311.

Erythropygia coryphaeus coryphaeus; Vincent, 1952: 77 (in part).
Erythropygia coryphaea cinerea; Praed & Grant, 1963: 189; C.B.C., 1963: 48.

Common in bushy places throughout the west of the area.

C 2, Ce 1, **Ce 2**, Cl 1, **Cl 2**, **N 1**, N 2, **N 3**, N 4, **Rb**, **S**, Sw 1, T, **V**, Wo 1, Wo 2.

Breeding (all subspecies)

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.							17	61	47	26	1	
Karoo								2	3	1	1	

c. *Erythropygia coryphaeus abboti* Friedm.

Erythropygia coryphaeus abboti Friedmann, Proc. biol. Soc. Wash., 54, 1932: 65. Near Berseba, Great Namaqualand; Vincent, 1952: 77.
Erythropygia coryphaeus coryphaeus; McLachlan & Liversidge, 1957: 311 (in part).
Erythropygia coryphaea coryphaea; Praed & Grant, 1963: 188 (in part).

Replaces the preceding in the east.

B, BW 1, **BW 2**, C 1, **Ce 3**, **Cn**, **Ct**, **D**, **F**, **H**, K, L, **Lg**, **M**, MB, **O**, **P**, **PA**, Pr, R, **Rv 1**, Rv 2, Su 1, **Su 2**, **Sw 2**, U, **VW**, **W**, **Wo 3**.

[**Erythropygia signata** (Sund.) Brown Robin

Cossypha signata Sundevall, Öfvers. K. VetenskAkad. Förh., 7, 1850: 101. Umhlanga, Natal.
Tychaëdon signata signata; Vincent, 1952: 74; McLachlan & Liversidge, 1957: 311; Praed & Grant, 1963: 174.
Erythropygia signata signata; C.B.C., 1963: 65.

Said to have been obtained on the Cape Peninsula, but the record is inherently unlikely and no further records have been made.]

Genus POGONOCICHLA Cab.

Pogonocichla stellata stellata (Vieill.) Starred Robin

Muscicapa stellata Vieillot, Nouvelle dictionnaire d'histoire naturelle, 21, 1818: 468. Plettenberg Bay.
Pogonocichla stellata stellata; Vincent, 1952: 75; McLachlan & Liversidge, 1957: 314; Praed & Grant, 1963: 189.

A forest species recorded only from Swellendam but no doubt occurring also in the larger forest patches farther east.

Sw 1.

Family **Motacillidae**

Genus MOTACILLA L.

Motacilla aguimp Dum. African Pied Wagtail

I see no advantage in placing these forms as subspecies of the Palaearctic *alba* as Vaurie (1959) does.

a. *Motacilla aguimp aguimp* Dum.

Motacilla aguimp Dumont, in Dictionnaire des sciences naturelles, 21, 1821: 266. Lower Orange River.

Motacilla aguimp aguimp; Vincent, 1952: 60; Macdonald, 1957: 111; McLachlan & Liversidge, 1957: 368; Praed & Grant, 1962: 654.

A breeding resident along the Orange River, whence it occasionally straggles south as far as Nelspoort in the east and the Olifants River and Saldanha Bay in the west.

BW 2, **H**, K, N 1, **N 2**, N 3, N 4, P, **Pr**, R, S, **U**.

[b. *Motacilla aguimp vidua* Sund.

Motacilla vidua Sundevall, Öfvers. K. VetenskAkad. Förh., 7, 1850: 128. Syene, Egypt (Aswan, Gyldenstolpe, Ark. Zool., 19A, 1927: 27).

Motacilla aguimp vidua; Vincent, 1952: 60; McLachlan & Liversidge, 1957: 368: Praed & Grant, 1962: 654.

Motacilla aguimp; C.B.C., 1963: 43.

Records of Pied Wagtails from Oudtshoorn and the Cape Town area (and Saldanha Bay?) are probably of this form but there are no specimens to confirm the identification of these stragglers. The photograph published by Broekhuysen (1939) of the Cape Town bird appears to be of an example of *vidua*.]

Motacilla capensis capensis L. Cape Wagtail

Motacilla capensis Linnaeus, Systema naturae, ed. 12, 1, 1766: 333. Cape of Good Hope.

Motacilla capensis capensis; Vincent, 1952: 60; Macdonald, 1957: 111; McLachlan & Liversidge, 1957: 369; Praed & Grant, 1962: 656; C.B.C., 1963: 43.

Motacilla capensis beirensis; Vincent, 1952: 60; McLachlan & Liversidge, 1957: 369.

Motacilla capensis bradfieldi; Vincent, 1952: 61; McLachlan & Liversidge, 1957: 369.

Revision, Winterbottom (1959*h*).

Generally distributed, resident and breeding wherever there is water, including the sea-shore if fresh water is available near by. A symbiote of man throughout the area.

Clancey (1963*a*) considers coastal birds from Little Namaqualand distinguishable as *M.c. bradfieldi* (Roberts).

All districts: **B, BW 2, C 2, Cn, Ct, F, H, MB, N 1, N 3, N 4, O, PA, Rb, S, U, V, W.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	10	4	5		1	3	47	105	100	58	33	12
Karoo									2		2	

Motacilla flava L. Yellow Wagtail

Motacilla flava Linnaeus, Systema naturae, ed. 10, 1758: 185. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1903–23); Vincent, 1952: 61; McLachlan & Liversidge, 1957: 369; C.B.C., 1963: 43.

Budytes flavus; Praed & Grant, 1962: 658.

The only example of this species from within our area which has been subspecifically determined is one of *M.f. feldegg* Michahelles (*Motacilla feldegg* Michahelles, Isis, 1830: 812. Split, Dalmatia) from Worcester; but a bird recorded at Muizenberg in January 1966 was believed to be an example of *M.f. thunbergi* Billberg (*Motacilla thunbergi* Billberg, Synopsis faunae Scandinaviae, 2, Aves, 1828: 50. Lapland). See Winterbottom (1966*i*). A rare, non-breeding straggler from the Palaearctic, probably reaching the west coast along the coastal belt, since there are no Karoo records.

MB, O, S, **Wo 1**.

Genus ANTHUS Bechst.

Anthus novaeseelandiae rufuloides Roberts Tawny Pipit

Anthus richardi rufuloides Roberts, Ostrich, 7, 1936: 111. Grahamstown; McLachlan & Liversidge, 1957: 371.

Anthus richardi transkeiensis; Vincent, 1952: 61.

Anthus novaeseelandiae rufuloides; Macdonald, 1957: 112; Praed & Grant, 1963: 10; C.B.C., 1963: 44.

For reasons for using this name, see South African Ornithological Society, List Committee Report (1956); on races in the Cape Province, see Winterbottom (1960*f*).

Widely distributed in open country within reach of water and the commonest pipit of our area.

B, **BW 2**, **C 2**, Ce 1, **Cl 1**, Cl 2, **Cn**, **Ct**, D, **F**, H, **K**, L, **Lg**, M, **MB**, **N 1**, **N 3**, **N 4**, **O**, **P**, **PA**, **Pr**, R, **Rb**, **Rv 1**, Rv 2, **S**, **Sw 1**, **T**, U, V, **VW**, **Wo 1**, Wo 3.

Breeding

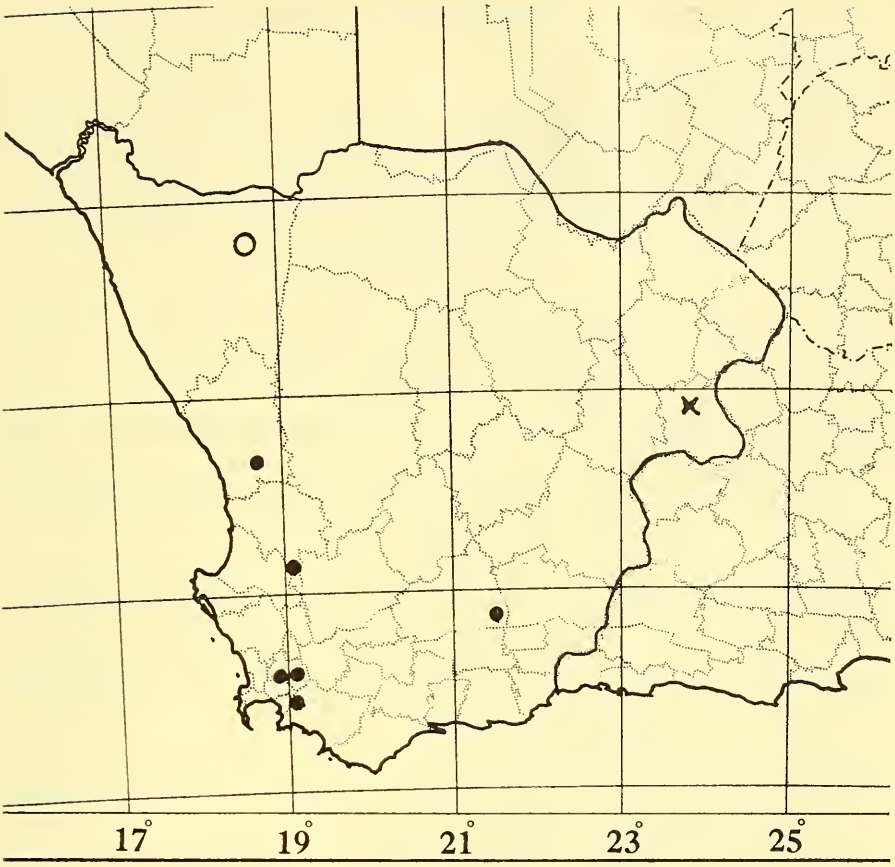
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								13	14	20	20	11
Karoo		1										

Anthus similis Jordon Long-billed Pipit

On the ranges of the subspecies in the western Cape, see Winterbottom (1959*g*).

a. *Anthus similis petricolus* Clancey

Anthus similis petricolus Clancey, Durban Mus. Novit., 4, 1956: 280. Mamathe's, Teyateyaneng, Lesotho.



Map 35. Distribution of subspecies of *Anthus similis*. Dots: *A. s. petricolus*; crosses: *A. s. nicholsoni*; open circles: *A. s. leucocraspedon*.

Anthus similis nicholsoni; Vincent, 1952: 61 (in part); McLachlan & Liversidge, 1957: 371 (in part); Praed & Grant, 1963: 3 (in part).
Anthus similis petrobates; C.B.C., 1963: 44.

On the whole, prefers more hilly ground than *A. novaeseelandiae*. The present race is that found in the south.

Cl 1, Ct, **Lg**, Rb, O, **S**, **V**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										1	2	

b. *Anthus similis leucocraspedon* Rchw.

Anthus leucocraspedon Reichenow, Orn. Mber., 23, 1915: 155. Windhoek.
Anthus similis leucocraspedon; Vincent, 1952: 62; Macdonald, 1957: 111; McLachlan & Liversidge, 1957: 371; Praed & Grant, 1963: 4.

Replaces the preceding subspecies in Little Namaqualand.
K, N 1, N 2, N 3, **N 4**.

c. *Anthus similis nicholsoni* Sharpe

Anthus nicholsoni Sharpe, in Layard's The birds of South Africa, 2nd ed., 1884: 536. Sigonall, Vaal River.

Anthus similis nicholsoni; Vincent, 1952: 61 (in part); McLachlan & Liversidge, 1957: 371 (in part); Praed & Grant, 1963: 3 (in part).

This race is found in the north-east of our area.
R.

Anthus leucophrys leucophrys Vieill. Plain-backed Pipit

Anthus leucophrys Vieillot, Nouvelle dictionnaire d'histoire naturelle, 26, 1818: 502. Cape of Good Hope.

Anthus leucophrys leucophrys; Vincent, 1952: 62; McLachlan & Liversidge, 1957: 372; C.B.C., 1963: 44.

Sparingly distributed in the Winter Rainfall area, resident and breeding.
Cl 2, **MB**, O, Rb, **S**, **Sw 1**, T, **Wo 1**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									2			

Anthus vaalensis Shell. Buffy Pipit

Revision, see Winterbottom (1962*a*).

a. *Anthus vaalensis vaalensis* Shell.

Anthus vaalensis Shelley, Birds of Africa, 2, 1900: 311. Newcastle, Natal; Macdonald, 1957: 113.

Anthus vaalensis vaalensis; Vincent, 1952: 62; McLachlan & Liversidge, 1957: 372; Praed & Grant, 1963: 6.

Known only from a specimen from Klaarstroom in the South African Museum, and from the Little Karoo.
O, **PA**.

b. *Anthus vaalensis daviesi* Roberts

Anthus daviesi Roberts, Ann. Transv. Mus., 4, 1914: 172. Matatiele.

Anthus vaalensis daviesi; Vincent, 1952: 62; McLachlan & Liversidge, 1957: 372; Praed & Grant, 1963: 7.

Sparingly distributed in the Karoo, where it is chiefly an inhabitant of cultivated land.
C 2, **Ce 2**, P.

Anthus crenatus Finsch & Hartl. African Rock Pipit

Anthus crenatus Finsch & Hartlaub, Die Vögel von Ost-Afrika, 1870: 275. Near Cape Town; Vincent, 1952: 62; McLachlan & Liversidge, 1957: 373; Praed & Grant, 1963: 14; C.B.C., 1963: 44.

A rare mountain species, about whose status little is known.
D, O, P, S, Wo 1.

[**Anthus chloris** Licht. Yellow-breasted Pipit

Anthus chloris Lichtenstein, Verzeichniss einer Sammlung von Säugethieren und Vögelen . . . Kaffernlande, 1842: 13. Kaffirland (restricted to Vaal and Modder rivers, western O.F.S., Stresemann, Annls Mus. r. Congo belge, N. Sér. 4to, Zool., 1, 1954: 81–82); Vincent, 1952: 62; Roberts, 1957: 375; Praed & Grant, 1963: 15.

Recorded from Swellendam by Shelley. No other records and, if correctly identified, must be a rare straggler only.]

Genus MACRONYX Swains.

Macronyx capensis capensis (L.) Orange-throated Longclaw

Alauda capensis Linnaeus, Systema naturae, ed. 12, 1, 1766: 288. Cape of Good Hope.

Macronyx capensis capensis; Vincent, 1952: 63; McLachlan & Liversidge, 1957. 376; Praed & Grant, 1963: 17; C.B.C., 1963: 44.

Generally distributed near water in the Winter Rainfall area, where it is resident and breeding. Elsewhere, recorded only from Oudtshoorn and Philipstown (the latter perhaps *latimerae* Clancey).

Ce 1, Ce 2, Cl 1, MB, O, P, Rb, Rv, **S, Sw 1, T, Wo 1**, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.							1	20	24	8	7	

Family **Laniidae**

Genus LANIUS L.

Lanius minor minor Gmel. Lesser Grey-Shrike

Lanius minor Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (1), 1788: 308. Italy, Spain, Russia (restricted to Italy, Hartert, Die Vögel der paläarktischen Fauna, 1910: 416), Vincent, 1952: 90; Macdonald, 1957: 143; McLachlan & Liversidge, 1957: 377; Praed & Grant, 1963: 379; C.B.C., 1963: 66.

A non-breeding migrant from the Palaearctic to the north-east of our area. A sight record from Vissershok, near Cape Town (Brooke, 1959*a*), is not accepted.

H, P, Pr, U.

Lanius collaris L. Fiscal

a. *Lanius collaris collaris* L.

Lanius collaris Linnaeus, Systema naturae, ed. 12, 1, 1766: 135. Cape of Good Hope.

Lanius collaris collaris; Vincent, 1952: 91; Macdonald, 1957: 143; McLachlan & Liversidge, 1957: 380; Praed & Grant, 1963: 380; C.B.C., 1963: 52.

An abundant and widespread resident except in forest and completely treeless places.

All districts except those listed under next form: **BW 2, C 2, Ce 2, Cl 1, Cn, Ct, F, H, O, PA, S, Sw 1, T, VW, W, Wo 1.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1						5	83	95	66	16	4
Karoo								1	2	3		

b. *Lanius collaris subcoronatus* Smith

Lanius subcoronatus A. Smith, Illustrations of the zoology of South Africa, Aves, 1841: pl. 68. Latakoo = Kuruman.

Lanius collaris subcoronatus; Vincent, 1952: 91; Macdonald, 1957: 143; McLachlan & Liversidge, 1957: 380; Praed & Grant, 1963: 381.

Replaces the preceding in the Upington–Kenhardt area.

K, P, **U**.

Lanius collurio L. Red-backed Shrike

The British Ornithologists' Union Taxonomic Sub-committee (Report, 1956) regard *collurio* as conspecific with *cristatus* L. I have followed Wynne (1956) and Vaurie (1959) in keeping it separate.

a. *Lanius collurio collurio* L.

Lanius collurio Linnaeus, Systema naturae, ed. 10, 1758: 94. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1910: 39); Praed & Grant, 1963: 384; C.B.C., 1963: 53.

Lanius collurio collurio; Vincent, 1952: 91; McLachlan & Liversidge, 1957: 381.

A non-breeding migrant from the Palaearctic to the north of our area, with a few records also from the extreme south-west.

H, **K**, N 3, **P**, **Pr**, S.

b. *Lanius collurio pallidifrons* Johansen

Lanius collurio pallidifrons Johansen, J. Orn., Lpz., 92, 1952: 199. Tomsk, western Siberia.

A skin from Olyvenhout Drift in the South African Museum has been identified as of this race by Professor Johansen.

U.

Genus CORVINELLA Less.

[**Corvinella melanoleuca melanoleuca** (Jard.) Long-tailed Shrike

Lanius melanoleucus Jardine, Edinb. J. nat. geogr. Sci., 3, 1831: 209. Orange River.

Urolestes melanoleucus melanoleucus; Vincent, 1952: 91; McLachlan & Liversidge, 1957: 389; Praed & Grant, 1963: 386.

May occur in the extreme north-east.]

Genus LANIARIUS Vieill.

Laniarius atrococcineus (Burch.) Crimson-breasted Shrike

Lanius atro-coccineus Burchell, Travels in the interior of southern Africa, 1, 1822: 387. Junction of Vaal and Orange rivers.

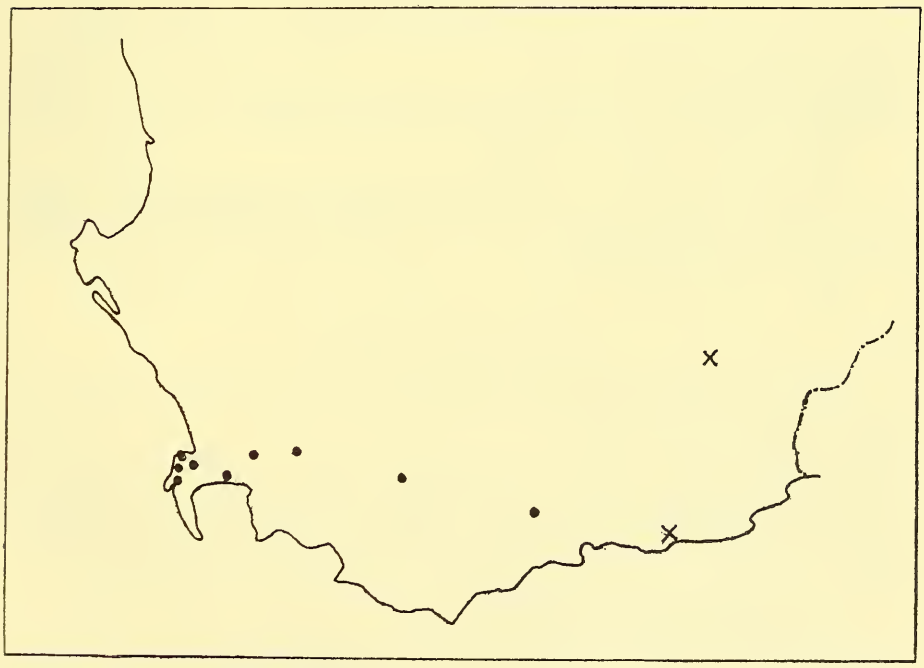
Laniarius atro-coccineus; Vincent, 1952: 91; Macdonald, 1957: 143; McLachlan & Liversidge, 1957: 382; C.B.C., 1963: 66.

Laniarius atrococcineus; Praed & Grant, 1963: 388.

Laniarius atrocroceus Trimen (Proc. zool. Soc. Lond., 1880: 623) is now generally accepted as a mutant of *L. atrococcineus* (and not a simple synonym as Rand in Mayr & Greenway, 1960, implies).

Known only from the Vaal–Orange confluence, with a doubtful sight record from Eerstewater, Beaufort West.

(BW 2), H.



MAP 36. Distribution of subspecies of *Laniarius ferrugineus*. Dots: *L. f. ferrugineus*; crosses: *L. f. pondoensis*.

Laniarius ferrugineus (Gmel.) Boubou

a. *Laniarius ferrugineus ferrugineus* (Gmel.)

Lanius ferrugineus Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1, (1), 1788: 306. Cape of Good Hope.

Laniarius ferrugineus ferrugineus; Vincent, 1952: 91; McLachlan & Liversidge, 1957: 382; Praed & Grant, 1963: 389; C.B.C., 1963: 53.

Common in forest and thick waterside cover in the west of the Winter Rainfall area, resident and breeding.

BW 2, Ce 1, Cl 1, L, M, PA, Rb, **S**, **Sw 1**, T, V, Wo 1, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									8	5		2

b. *Laniarius ferrugineus pondoensis* Roberts

Laniarius ferrugineus pondoensis Roberts, Ann. Transv. Mus., 8, 1922: 246. Port St. Johns; Vincent, 1952: 91; McLachlan & Liversidge, 1957: 382; Praed & Grant, 1963: 389.

Replaces the preceding in the east of the Winter Rainfall area and Little Karoo, but the limits of the two forms have not been determined.

Ct, MB, O, **Rv 1**.

Genus DRYOSCOPUS Boie

Dryoscopus cubla cubla (Shaw) Puff-backed Shrike

Lanius cubla Shaw, General zoology, 7, 1809: 325. George.

Dryoscopus cubla cubla; Vincent, 1952: 92; McLachlan & Liversidge, 1957: 383; Praed & Grant, 1963: 394.

A forest species which just penetrates our area in the east of the Mossel Bay District. It is not known to extend to the Cape Peninsula, as shown in the map in Praed & Grant (1963).

MB.

Genus NILAUS Swains.

I agree with the view that *Nilaus* is a shrike and not, as it is sometimes considered (e.g. Vincent, 1952), a flycatcher.

Nilaus afer brubru (Lath.) Brubru

Lanius brubru Latham, Index ornithologicus, Suppl., 1801: 20. Interior of Cape of Good Hope (restricted to Goodhouse, Macdonald, 1957: 145).

Nilaus brubru brubru; Vincent, 1952: 68.

Nilaus afer brubru; Macdonald, 1957: 144; McLachlan & Liversidge, 1957: 392; Praed & Grant, 1963: 377.

Occurs all along the Orange River in the fringing Acacia belt, but not known from further south except at Pofadder and Kenhardt.

H, **K**, N 1, N 2, N 4, **Pr**, **U**.

Genus TCHAGRA Less.

Tchagra tchagra tchagra (Vieill.) Tchagra

Thamnophilus tchagra Vieillot, Nouvelle dictionnaire d'histoire naturelle, 3, 1816: 317. Senegal to Cafferland = Gamtoos River, Cape Province.

Tchagra tchagra tchagra; Vincent, 1952: 92; McLachlan & Liversidge, 1957: 384; Praed & Grant, 1963: 397; C.B.C. 1963: 53.

Inhabits well-grown Macchia from about Cape L'Agulhas east; and extends into the dense Acacia belts in the south and east of the Karoo (Winterbottom, 1962*i*). Occasionally straggles as far west as Faure, Somerset West District, and even Lambert's Bay, Clanwilliam.

BW 2, Cl 1, **Ct**, L, Lg, M, MB, O, **PA**, **Rb**, **Rv 1**, **S**, **Sw 1**, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									3	1		

[**Tchagra australis damarensis** (Rchw.) Brown-headed Tchagra

Pomutorhynchus australis damarensis Reichenow, Orn. Mber., 23, 1915: 120. Windhoek.

Tchagra australis damarensis; Vincent, 1952: 93; McLachlan & Liversidge, 1957: 384; Praed & Grant, 1963: 401.

May occur in the extreme north-east.]

[**Tchagra senegala confusa** (v. Som.) Black-headed Tchagra

Harpolestes senegalus confusus van Someren, Novit. zool., 29, 1922: 113. Umfolosi, Zululand.

Tchagra senegalus confusus; Vincent, 1952: 93.

Tchagra senegala confusa; McLachlan & Liversidge, 1957: 385.

Tchagra senegala mozambica; Praed & Grant, 1963: 398 (in part).

A sight record from Seven Weeks Poort needs confirmation.]

Genus MALACONOTUS Swains.

On the limits of this genus, see Mayr & Amadon (1951).

Malaconotus olivaceus olivaceus (Shaw) Olive Bush Shrike

Lanius olivaceus Shaw, General zoology, 7, 1809: 330. Algoa Bay.

Chlorophonus olivaceus olivaceus; Vincent, 1952: 94; McLachlan & Liversidge, 1957: 386; Praed & Grant, 1963: 404.

A forest species recorded only from Grootvadersbos, Swellendam.

Sw 1.

Malaconotus zeylonus (L.) Bokmakierie

Revision, see Clancey (1960*d*).

a. *Malaconotus zeylonus zeylonus* (L.)

Turdus zeylonus Linnaeus, Systema naturae, ed. 12, 1, 1766: 297. Ceylon and Cape of Good Hope (restricted to Cape Town, Clancey, Bull. Br. Orn. Club, 80, 1960: 122).

Telephorus zeylonus zeylonus; Vincent, 1952: 94 (in part); McLachlan & Liversidge, 1957: 388 (in part); Praed & Grant, 1963: 409 (in part); C.B.C., 1963: 53.

Abundant in bushy areas throughout except where replaced by the next form.

All districts except those inhabited by *M.z. thermophilus*: **C 2, Cl 1, Cn, H, MB, R, Rb, S, V, Wo 1, Wo 3.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.						5	63	95	43	12	5	

b. *Malaconotus zeylonus thermophilus* (Clancey)

Telophorus zeylonus thermophilus Clancey, Bull. Br. Orn. Club, 80, 1960: 123. Windhoek.

Telophorus zeylonus zeylonus; Vincent, 1952: 94 (in part); Macdonald, 1957: 144; McLachlan & Liversidge, 1957: 388 (in part); Praed & Grant, 1963: 409 (in part).

Replaces the preceding in the west from about Clanwilliam north. **K**, N 1, N 2, **N 3**, **N 4**, U.

Family **Sturnidae**

Genus STURNUS L.

Sturnus vulgaris vulgaris L. European Starling

Sturnus vulgaris Linnaeus, Systema naturae, ed. 10, 1758: 167. Europe, Asia (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1903–23).

Sturnus vulgaris vulgaris; Vincent, 1952: 96; McLachlan & Liversidge, 1957: 393; Praed & Grant, 1963: 440; C.B.C., 1963: 54.

On the distribution of this species in general, see Winterbottom & Liversidge (1954). Introduced in the Cape Peninsula about 1898, it has now spread over the whole Winter Rainfall area and Little Karoo. Its penetration of the main Karoo had reached Sutherland and Leeuw-Gamka (Fraserburg Road) by 1958, but is believed to have contracted as a result of the severe drought of the late 50's. Resident and breeding where it occurs, with a strong partiality for country altered by man and uncommon in the indigenous bush, even in the Winter Rainfall area, except where this has been invaded by alien Acacia species.

C 2, Ce 1, Ce 2, **Cl 1**, Cl 2, Ct, L, Lg, M, **MB**, O, **PA**, Rb, **Rv 1**, **S**, Su 1, Sw 1, Sw 2, T, V, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.						1			5	35	8	

Genus CREATOPHORA Less.

Creatophora cinerea (Meuschen) Wattled Starling

Rallus cinerea Meuschen, Museum Geversianum, sive index rerum naturalium, 17, 1787: 40–41. Cape of Good Hope.

Creatophorus cinereus; Vincent, 1952: 96; C.B.C., 1963: 54.

Creatophora carunculata; Macdonald, 1957: 150.

Creatophora cinerea; McLachlan & Liversidge, 1957: 396; Praed & Grant, 1963: 441.

A nomadic species, widely distributed but unpredictable in its occurrence. In 1961, breeding colonies were found in the Winter Rainfall area in the Malmesbury, Robertson and Bredasdorp districts; and breeding was suspected in the Dwyka basin in the same year; again bred at the Winter Rainfall sites in 1962, 1963 and 1965.

BW 2, C 2, Cl 1, Cn, **Ct**, **H**, **Lg**, MB, O, P, PA, R, Rb, Rv 1, **S**, Sw 1, U, V, **Wo 1, Wo 3.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R. Col.									1	2		
Ind.									2			

Genus LAMPROTORNIS Temm.

On the limits of this genus, see Amadon (1956).

Lamprotornis nitens phoenicopterus Swains. Red-shouldered Glossy Starling

Lamprotornis phoenicopterus Swainson, Animals in menageries, 1838: 360. South Africa (Orange River, near Prieska, Cape Province, Burchell, Travels in the interior of southern Africa, 1, 1822: 318).

Lamprocolius nitens phoenicopterus; Vincent, 1952: 97; Macdonald, 1957: 151; McLachlan & Liversidge, 1957: 397; Praed & Grant, 1963: 446.

On the nomenclature of this species, see Clancey & Holliday (1951).

Widely distributed in the north, extending south to Garies in Namaqualand but not beyond 50 miles south of the Orange River further east, except for a single record from Seven Weeks Poort.

H, K, MB, N 2, **N 3**, P, PA, **Pr**, **U.**

[**Lamprotornis australis australis** (Smith) Burchell's Glossy Starling

Megalopterus australis A. Smith, Report of the expedition for exploring central Africa, 1836: 52. Kurrichane, Transvaal.

Lamprotornis australis; Vincent, 1952: 97; Macdonald, 1957: 151; McLachlan & Liversidge, 1957: 400; Praed & Grant, 1963: 453.

May occur in the extreme north-east.]

Genus ONYCHOGNATHUS Hartl.

Onychognathus nabouroup (Daud.) Pale-winged Starling

Sturnus nabouroup Daudin, Traité . . . d'ornithologie, 2, 1800: 308. Kamiesberg, Little Namaqualand.

Onychognathus nabouroup nabouroup; Vincent, 1952: 98; Macdonald, 1957: 151; McLachlan & Liversidge, 1957: 400; Praed & Grant, 1963: 456; C.B.C., 1963: 54.

For reason for use of binomial only, see Winterbottom (1961*e*).

A Karoo species, replacing *O. morio* in drier environments, where it is widely distributed in the vicinity of rocky hills and mountains.

B, BW 1, BW 2, BW 3, C 2, Ce 3, Cl 1, Cl 2, **Cn**, D, F, **H**, K, L, Lg, M, **N 2**, **N 3**, **N 4**, O, P, PA, **Pr**, R, Rb, Rv 2, Su 1, **Su 2**, U, V, **VW**, W, Wo 3.

Onychognathus morio morio (L.) Red-winged Starling

Turdus morio Linnaeus, Systema naturae, ed. 12, 1, 1766: 297. Cape of Good Hope.

Onychognathus morio morio; Vincent, 1952: 98; McLachlan & Liversidge, 1957: 401; Praed & Grant, 1963: 457; C.B.C., 1963: 54.

A common, breeding resident of the mountainous parts of the Winter Rainfall area, whence it penetrates the near-by Karoo, overlapping with *O. nabouroup* in such places. Also recorded from Kenhardt and Aughrabies in the north.

BW 1, BW 2, C 2, Ce 1, Ce 2, Ce 3, **Cl 1**, Cl 2, **Ct**, D, K, L, Lg, **M**, **MB**, O, P, PA, Rb, Rv 1, Rv 2, **S**, **Sw 1**, Sw 2, **T**, V, **Wo 1**, **Wo 2**, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1	2							6	13	14	8

Genus SPREO Less.

Spreo bicolor (Gmel.) Pied Starling

Turdus bicolor Gmelin, C. a Linné . . . Systema naturae, ed. 13, 1 (2), 1789: 835. Cape of Good Hope.

Spreo bicolor; Vincent, 1952: 98; McLachlan & Liversidge, 1957: 401; Praed & Grant, 1963: 460; C.B.C., 1963: 55.

Absent only from the most arid areas. A breeding resident of the flatter parts of the Winter Rainfall and Karoo country alike, but replaced in the mountains by species of the preceding genus. More of a ground and insect feeder than *Onychognathus* spp.

All districts, except BW 3, C 1, K, N 2, N 3, N 4 and U: **C 2, Cl 1, Ct, F, M, O, PA, Rb, S, Sw 1, Sw 2, Wo 3.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								3	12	8	7	
Karoo			2								2	1

Family **Nectariniidae**

Genus NECTARINIA Illig.

The limits of, and arrangement of species in, this genus follow Delacour (1944).

Nectarinia amethystina amethystina (Shaw) Black Sunbird

Certhia amethystina Shaw, General zoology, 8, 1811: 195. Cape of Good Hope.
Chalcomitra amethystina amethystina; Vincent, 1952: 101; McLachlan & Liversidge, 1957: 416; Praed & Grant, 1963: 500; C.B.C., 1963: 66.

Penetrates the Winter Rainfall area as far west as Swellendam, usually in the vicinity of forest. It is not known to extend to the Cape Peninsula, as shown in the map in Praed & Grant (1963).

MB, O, Rv 1, Sw 1.

Nectarinia fusca (Vieill.) Dusky Sunbird

Cinnyris fuscus Vieillot, Nouvelle dictionnaire d'histoire naturelle, 31, 1819: 506. Great Namaqualand; Vincent, 1952: 101; Macdonald, 1957: 154; McLachlan & Liversidge, 1957: 413; Praed & Grant, 1963: 497; C.B.C., 1963: 66.

Inhabits the whole Karoo area except the Little Karoo, but probably at least partly nomadic and certainly less common in most of the Karroid Broken Veld than it is further north.

B, **BW 2**, Cl 1, **Cn**, **H**, K, **Lg**, N 1, **N 2**, **N 3**, **N 4**, P, **PA**, **Pr**, R, Rb, **Su 2**, U, V, **VW**, **W**.

Nectarinia chalybea (L.) Lesser Double-collared Sunbird

On races, see Winterbottom (1963*c*).

a. *Nectarinia chalybea chalybea* (L.)

Certhia chalybea Linnaeus, Systema naturae, ed. 12, 1, 1766: 186. Cape of Good Hope.
Cinnyris chalybea chalybea; Vincent, 1952: 100; C.B.C., 1963: 55.
Cinnyris chalybeus chalybeus; Macdonald, 1957: 153; McLachlan & Liversidge, 1957: 409; Praed & Grant, 1963: 494.

A common breeding resident in the Winter Rainfall area as far north as the Berg River; becoming progressively rarer as one goes north and east in the Karoo. In the south-west, essentially a bird of the flatter country, replaced

on the mountains by *N. violacea*, though the distinction is not absolute and may be due to its avoiding the true Macchia, which is predominantly a mountain flora.

BW 1, BW 2, **C 2**, Ce 1, **Ce 2**, Ce 3, D, Lg, **M**, MB, P, **PA**, **R**, **Rb**, **Rv 1**, **S**, **Su 2**, **Sw 1**, **Sw 2**, **T**, **V**, **VW**, Wo 1, Wo 2, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.			1	1	3	5	31	56	31	25		
Karoo							1		1			

b. *Nectarinia chalybea subalaris* (Rchw.)

Cinnyris subalaris Reichenow, Orn. Mber., 7, 1899: 170. Pondoland.
Cinnyris chalybea subalaris; Vincent, 1952: 100.
Cinnyris chalybeus subalaris; McLachlan & Liversidge, 1957: 409; Praed & Grant, 1963: 495.

Replaces the preceding in the Little Karoo.
Ct, L, M, O.

c. *Nectarinia chalybea albilateralis* Winterbottom

Nectarinia chalybea albilateralis Winterbottom, Ostrich, 34, 1963: 155. Port Nolloth.

Replaces the type race along the west coast belt from Piketberg north. Does not usually extend east into the Arid Karoo and not normally found along the Orange River beyond the western Richtersveld but has been taken at Pofadder.

Cl 1, Cl 2, **K**, N 1, **N 2**, N 3, **S**, **V**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.					1		5	1	2			

Nectarinia afra afra (L.) Greater Double-collared Sunbird

Certhia afra Linnaeus, Systema naturae, ed. 12, 1, 1766: 186. Cape of Good Hope.
Cinnyris afra afra; Vincent, 1952: 100.
Cinnyris afer afer; McLachlan & Liversidge, 1957: 408; Praed & Grant, 1963: 492; C.B.C., 1963: 66.

A breeding resident in the south-east, reaching its western limit about Hermanus and Wolseley and its northern at Oudtshoorn, where it is rare. Partial to forest edges.

Ct, **MB**, O, **S**, **Sw 1**, T, Wo 1.

Nectarinia violacea (L.) Orange-breasted Sunbird

Certhia violacea Linnaeus, Systema naturae, ed. 12, 1, 1766: 188. Cape of Good Hope.

Anthobaphes violacea; Vincent, 1952: 100; McLachlan & Liversidge, 1957: 405; Praed & Grant, 1963: 481; C.B.C., 1963: 55.

Confined to the Macchia vegetation, especially on the mountains, but there a common resident.

Ce 1, Ce 2, Cl 1, L, Lg, M, MB, O, PA, Rb, Rv 1, Rv 2, **S**, **Sw 1**, V, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.		3	9	32	37	45	63	46	15	2	4	

Nectarinia famosa famosa (L.) Malachite Sunbird

Certhia famosa Linnaeus, Systema naturae, ed. 12, 1, 1766: 187. Cape of Good Hope.

Nectarinia famosa famosa; Vincent, 1952: 99; Macdonald, 1957: 153; McLachlan & Liversidge, 1957: 405; Praed & Grant, 1963: 477; C.B.C., 1963: 55.

Not known from the north-east, except Philipstown, and an uncommon bird on the Karoo generally. A common, breeding resident in the Winter Rainfall area.

BW 2, C 2, **Ce 1**, **Ce 2**, Ce 3, **Cl 1**, Cl 2, **Ct**, D, F, L, Lg, M, MB, N 1, N 2, **N 3**, O, P, **PA**, R, **Rb**, Rv 1, Rv 2, **S**, Su 1, Su 2, **Sw 1**, **Sw 2**, T, **V**, VW, Wo 1, Wo 2, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.						5	39	52	35	34	7	2
Karoo									2	2		

Family **Promeropidae**

I do not agree with the view that includes the sugarbirds in the Meliphagidae.

Genus PROMEROPS Briss.

Promerops cafer (L.) Cape Sugarbird

Merops cafer Linnaeus, Systema naturae, ed. 10, 1758: 117. Aethiopia (corrected to Cape of Good Hope, Brisson).

Promerops cafer; Vincent, 1952: 102; McLachlan & Liversidge, 1957: 403; C.B.C., 1963: 55.

Promerops cafer cafer; Macdonald, 1957: 154; Praed & Grant, 1963: 521.

P. gurneyi Verr. is regarded as a distinct species (see Skead, 1964).

Confined to the Protea bush of the Winter Rainfall area, where it is a common breeding species, with local movements as yet very imperfectly understood.

Ce 1, Ce 2, **Cl 1**, Cl 2, L, Lg, M, **MB**, O, PA, Rb, Rv 1, Rv 2, **S**, Sw 1, T, **V**, Wo 1, Wo 2, **Wo 3**.

Breeding	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.		1	21	168	91	59	42	6	1			

Family **Zosteropidae**

Genus ZOSTEROPS Vig. & Horsf.

Arrangement of species in this genus follows Moreau (1957).

Zosterops pallidus pallidus Swains. Pale White-eye

Zosterops pallida Swainson, Animals in menageries, 1838: 294. Southern Africa (type from 10 miles east of Prieska, Grant & M.-Praed, Ostrich, 28, 1957: 174).

Zosterops pallida pallida; Vincent, 1952: 99; Macdonald, 1957: 152.

Zosterops pallidus pallidus; McLachlan & Liversidge, 1957: 418; Praed & Grant, 1963: 467.

MAP 37. Distribution of *Zosterops pallida* and *Z. virens*. Open circles: *pallida*; crosses: *virens*.

On the reasons for the use of this name, see Clancey & Winterbottom (1961).

Essentially a bird of the Orange River basin, where it replaces *Z. virens* in streamside cover, gardens, etc. The ranges of the two species interdigitate in a curious manner across the northern Karoo.

C 2, **H**, **K**, **N 1**, **N 2**, **N 3**, **N 4**, **P**, **Pr**, R, **U**.

Zosterops virens, Sund. Green White-eye

a. *Zosterops virens capensis* Sund.

Zosterops capensis Sundevall, Öfvers. K. VetenskAkad. Förh., 7, 1850: 102. Rondebosch, Cape Province.

Zosterops pallida capensis; Vincent, 1952: 99; Macdonald, 1957: 152.

Zosterops pallidus capensis; McLachlan & Liversidge, 1957: 418.

Zosterops virens capensis; Praed & Grant, 1963: 466; C.B.C., 1963: 55.

An abundant species in the Winter Rainfall area wherever the vegetation is luxuriant enough and including indigenous forest, alien tree plantations and gardens. In the Karoo areas, naturally much more sparingly distributed and its range interdigitates with that of *Z. pallida* in a curious and inexplicable way.

Ce 1, Ce 2, **Cl 1**, Cl 2, **Ct**, L, M, **MB**, **N 3**, O, **PA**, **Rb**, **Rv 1**, Rv 2, **S**, **Sw 1**, Sw 2, T, V, Wo 1, **Wo 2**, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	1		1	1				8	16	37	38	17

b. *Zosterops virens atmorii* Sharpe

Zosterops atmorii Sharpe, in Layard's The birds of South Africa, 2nd ed., 1877: 326. Grahamstown.

Zosterops pallida atmorii; Vincent, 1952: 99.

Zosterops pallidus atmorei; McLachlan & Liversidge, 1957: 418.

Replaces the preceding over most of the lower Karoo, west as far as Calvinia, intergrading with it at Klaarstroom.

BW 2, **C 2**, F, **Lg**, **PA**, **Su 1**, **VW**, **W**.

Family **Ploceidae**

Genus PASSER Briss.

Passer domesticus indicus Jard. & Selby House Sparrow

Passer indicus Jardine & Selby, Illustrations of ornithology, 3, 1831: pl. 118. India (restricted to Bangalore, Kinnear, Ibis, 1925: 751).

Passer domestica indicus; Vincent, 1952: 113.

Passer domesticus indicus; McLachlan & Liversidge, 1957: 422; Praed & Grant, 1963: 554; C.B.C., 1963: 57.

For discussion of the range up to 1960, see Winterbottom (1961*a*). Originally introduced at Durban, it has only been recognized in our area

since 1958, but has spread rapidly, reaching Loeriesfontein, Vanrhynsdorp and Laingsburg in 1961, Port Nolloth, Piquetberg and Touws River in 1962, the Cape Town suburb of Plumstead at the end of 1963, and the Bredasdorp District in 1964. Always in the vicinity of human habitations, especially towns and villages but also on farms.

B, BW 2, C 1, C 2, Ce 1, Cl 1, Cn, Ct, D, F, **H**, K, L, Lg, M, N 1, N 3, **N 4**, O, **P**, **PA**, **Pr**, R, Rb, S, Su 1, Sw 1, T, U, V, VW, W, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo												1

Passer motitensis motitensis (Smith) Great Sparrow

Pyrgita Motitensis A. Smith, Report of the expedition for exploring central Africa, 1836: 50. Old Latakoo (restricted to Motito, 27° 04′ S., 23° 50′ E., Winterbottom, Ostrich, 37, 1966: 138–139).

Passer motitensis motitensis; Vincent, 1952: 113; Praed & Grant, 1963: 555.

Passer motitensis; Macdonald, 1957: 156.

Passer iagoensis motitensis; McLachlan & Liversidge, 1957: 422.

On the original description of this form, see Clancey (1964*b*).

A Kalahari species which only penetrates our area in the extreme north along the Orange River.

H, K, N 1.

Passer melanurus (Müll.) Mossie

For revision of the races of this species, see Clancey (1958*a*).

a. *Passer melanurus melanurus* (Müll.)

Loxia melanura P. L. S. Müller, C. von Linné . . . Natursystem, Suppl., 1776: 153. Cape of Good Hope.

Passer melanura melanura; Vincent, 1952: 113; C.B.C., 1963: 57.

Passer melanurus melanurus; McLachlan & Liversidge, 1957: 423; Praed & Grant, 1963: 556.

An abundant breeding resident, especially, but not exclusively, in areas altered by man, in the southern part of the area.

All districts except those occupied by *P.m. damarensis*: **Ct, Lg, PA, Rb, S, Sw 1, V, Wo 1, Wo 3.**

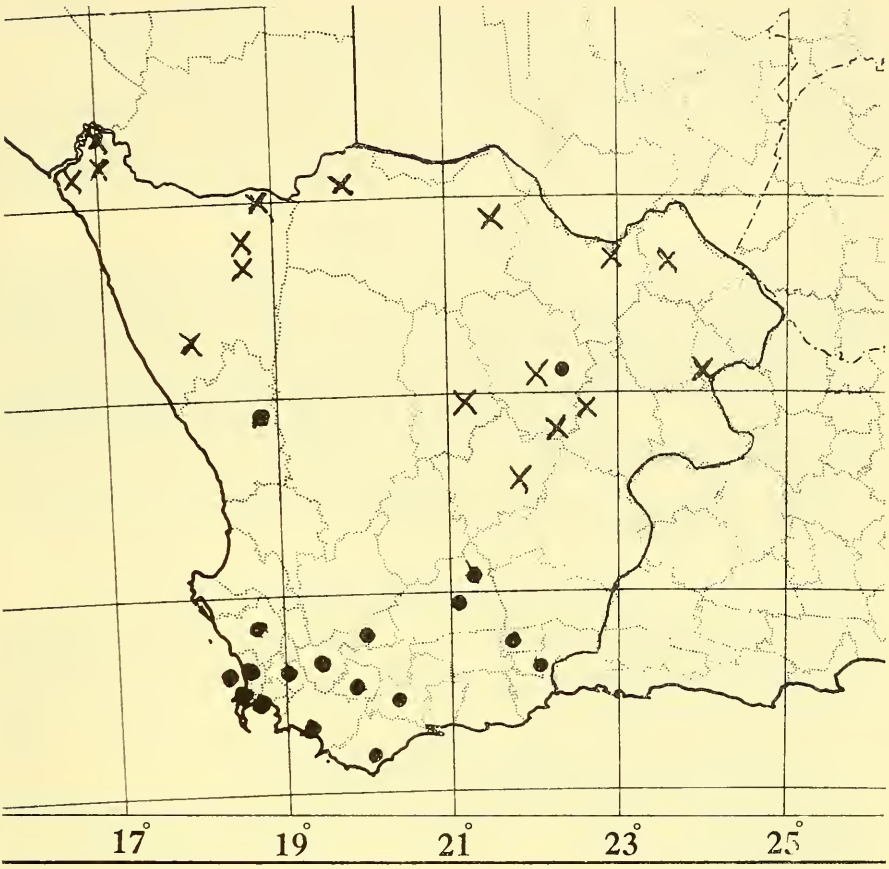
Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	4	2	1	2	3		6	42	73	79	31	19
Karoo		2	2	1		1	1	1	3	4	4	5

b. *Passer melanurus damarensis* Rchw.

Passer arcuata damarensis Reichenow, Orn. Mber., 10, 1902: 77. Windhoek.

Passer melanura damarensis; Vincent, 1952: 113; Macdonald, 1957: 157.



Map 38. Distribution of subspecies of *Passer melanurus*. Dots: *P. m. melanurus*; crosses: *P. m. damarensis*.

Passer melanurus damarensis; McLachlan & Liversidge, 1957: 423; Praed & Grant, 1963: 556.

Replaces the preceding in the north and equally abundant.

B, BW 1, C 1, **Cn**, **D**, **F**, **H**, K, N 1, **N 2**, **N 3**, **N 4**, P, **Pr**, U, **VW**, **W**.

Passer griseus diffusus (Smith) Grey-headed Sparrow

Pyrgita diffusa A. Smith, Report of the expedition for exploring central Africa, 1836: 50. North of the Orange River (restricted to Kuruman, Cape Province, Macdonald & Hall, Ann. Transv. Mus., 23, 1957: 35).

Passer grisea diffusa; Vincent, 1952: 113.

Passer diffusus diffusus; McLachlan & Liversidge, 1957: 423; Praed & Grant, 1963: 558.

For the specific relationships of *diffusus* and *griseus* (Vieill.), see Benson (1956) and White & Moreau (1958), the latter of whom are followed here

provisionally; but see also Clancey (1959*g*) on the undesirability of a closed mind in this matter.

Only recorded near the Orange River in the extreme north.

H, K, N 2, N 4, P, Pr, **U**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo												1

Genus PETRONIA Kaup

[**Petronia superciliaris** (Blyth) Yellow-throated Sparrow

Gymnorhis superciliaris Blyth, J. Asiat. Soc. Beng., 14, 1845: 553. South Africa (restricted to Cape Town, Grant & Clancey, Ostrich: 1953: 128 and amended to Port Elizabeth, Winterbottom, Ostrich, 30, 1959: 139–140).

Petronia superciliaris; Vincent, 1952: 114; McLachlan & Liversidge, 1957: 423; Praed & Grant, 1963: 560; C.B.C., 1963: 67.

There are no authentic records of this species from our area, though Cape Town has been proposed as the type locality.]

Genus PLOCEPASSER Smith

Plocepasser mahali stentor Clancey White-browed Sparrow-Weaver

Plocepasser mahali stentor Clancey, Durban Mus. Novit., 5, 1957: 47. Kenhardt; Praed & Grant, 1963: 550.

Plocepasser mahali mahali; Vincent, 1952: 103 (in part); Macdonald, 1957: 155; McLachlan & Liversidge, 1957: 420 (in part).

Only in the Acacia belts in the Orange River basin, where a common breeding resident.

B, **H**, **K**, P, Pr, **U**.

Genus PHILETAIRUS Smith

Philetairus socius (Lath.) Social Weaver

On the distribution of this species in general, see Rudebeck (1956).

a. *Philetairus socius socius* (Lath.)

Loxia socia Latham, Index ornithologicus, 1, 1790: 381. Warmbad, Great Namaqualand.

Philetairus socius; Vincent, 1952: 103 (in part); McLachlan & Liversidge, 1957: 421 (in part); Praed & Grant, 1963: 552 (in part).

Philetairus socia; Macdonald, 1957: 156.

Along the Orange River from Assenkjer to Kenhardt and, as a straggler, from the mouth of the river.

K, N 1, N 4.

b. *Philetairus socius eremnus* Clancey

Philetairus socius eremnus Clancey, Durban Mus. Novit., 5, 1957: 84. Prieska.

Philetairus socius; Vincent, 1952: 103 (in part); McLachlan & Liversidge, 1957: 421 (in part); Praed & Grant, 1963: 552 (in part).

Replaces the preceding in the east, extending south to 60 miles north-west of Carnarvon. Its natural range is limited by the necessity for large Acacias to hold its nest; but it has been able to extend it by using telegraph poles instead.

Cn, H, Pr, U.

Genus SPOROPIPES Cab.

Sporopipes squamifrons squamifrons (Smith) Scaly Weaver

Estrelda squamifrons A. Smith, Report of the expedition for exploring central Africa, 1836: 49. South Africa (restricted to Kuruman, Cape Province, Macdonald, 1957: 158, and Clancey, Durban Mus. Novit., 5, 1957: 50).

Sporopipes squamifrons squamifrons; Vincent, 1952: 103.

Sporopipes squamifrons; Macdonald, 1957: 158; McLachlan & Liversidge, 1957: 424; Praed & Grant, 1963: 561.

For a review of the races of this species, see Clancey (1957*e*); also Moreau & White (1958).

Range chiefly in the north, extending south at times as far as Klaarstroom.

BW 2, **H**, K, N 3, **N 4**, P, PA, **Pr**, **U**, **VW**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Karoo											1	

Genus PLOCEUS Cuv.

Ploceus velatus Vieill. Masked Weaver

Revision, Clancey (1959*d*).

a. *Ploceus velatus velatus* Vieill.

Ploceus velatus Vieillot, Nouvelle dictionnaire d'histoire naturelle, 34, 1819: 132. Namaqualand (probably Goodhouse or Pella).

Ploceus velatus velatus; Vincent, 1952: 104; Macdonald, 1957: 160; McLachlan & Liversidge, 1957: 433, Praed & Grant, 1963: 569 (in part).

Ploceus velatus nigrifrons; Vincent, 1952: 104; Praed & Grant, 1963: 569.

Ploceus velatus arundinarius; McLachlan & Liversidge, 1957: 433.

Only in the north.

B, **Cn**, **H**, **K**, N 1, N 2, N 3, **N 4**, P, Pr, R, **U**.

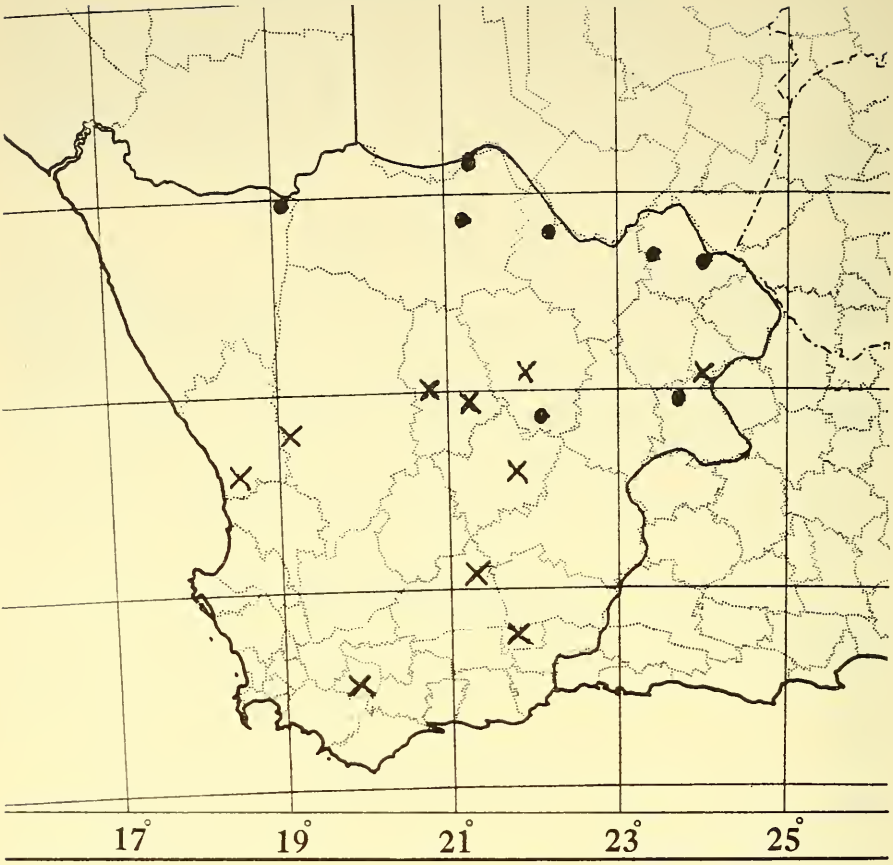
b. *Ploceus velatus inustus* Clancey

Ploceus velatus inustus Clancey, Durban Mus. Novit., 5, 1959: 173. Lokenburg, Calvinia District.

Ploceus velatus nigrifrons; McLachlan & Liversidge, 1957: 433.

Ploceus velatus velatus; Praed & Grant, 1963: 569 (in part).

Ploceus velatus insustus (*sic*); C.B.C., 1963: 55.



Map 39. Distribution of subspecies of *Ploceus velatus*. Dots: *P. v. velatus*; crosses: *P. v. inustus*.

The common weaver of the Karoo, extending into the Winter Rainfall area extensively but there much less numerous than *P. capensis*.

BW 2, C 1, **C 2**, Cl 1, **Cn**, **Ct**, **D**, **F**, L, **Lg**, **M**, O, **PA**, **Rb**, **S**, Su 1, Su 2, Sw 1, Sw 2, T, **V**, **VW**, **W**, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								2	1	1		
Karoo					7			5		3		2

[**Ploceus cucullatus spilonotus** Vigors Spot-backed Weaver

Ploceus spilonotus Vigors, Proc. zool. Soc. Lond., 1831: 92. Algoa Bay; Vincent, 1952: 104.

Ploceus cucullatus spilonotus; McLachlan & Liversidge, 1957: 430; Praed & Grant, 1963: 565.

For reasons for regarding *spilonotus* as a race of *cucullatus*, see South African Ornithological Society, List Committee Report (1960).

May occur in the extreme south-east. There are sight-records from Oudtshoorn.]

Ploceus capensis capensis (L.) Cape Weaver

Oriolus capensis Linnaeus, Systema naturae, ed. 12, 1, 1766: 163. Cape of Good Hope.

Xanthophilus capensis capensis; Vincent, 1952: 105; C.B.C., 1963: 56.

Ploceus capensis capensis; Macdonald, 1957: 160; McLachlan & Liversidge, 1957: 430; Praed & Grant, 1963: 563.

Inhabits a broad belt parallel with the coast from Klipfontein in Namaqualand to Klaarstroom, Oudtshoorn and Mossel Bay; and is also recorded from Beaufort West, where, however, it is probably only a straggler. A common, breeding resident where it occurs.

BW 2, **C 2**, Ce 1, **Ce 2**, **Cl 1**, Cl 2, **Ct**, L, Lg, M, MB, N 1, **N 3**, O, **PA**, **Rb**, **Rv 1**, Rv 2, **S**, Sw 1, Sw 2, **T**, V, **Wo 1**, Wo 2, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R. Col.									7	6	1	
Ind.						2	6	21	46	21	8	2
Karoo Ind.								1				

Genus QUELEA Reichenb.

Quelea quelea lathamii (Smith) Red-billed Quelea

Loxia lathamii A. Smith, Report of the expedition for exploring central Africa, 1836: 51. Near Kurrichane, Transvaal.

Quelea quelea lathami; Vincent, 1952: 166; Macdonald, 1957: 161; McLachlan & Liversidge, 1957: 434; Praed & Grant, 1963: 594; C.B.C., 1963: 56.

Lourens (1963) has produced evidence suggesting that the three recognizable forms of *Quelea quelea* are reproductively isolated and should be regarded as a species group forming a super-species. While appreciating the importance of Lourens's findings, I have not adopted this procedure here, since the change of emphasis does not seem to me vital enough to warrant change in the accepted nomenclature.

A nomadic species, whose wanderings occasionally take it into the north-east of our area.

K, P, S, **U**, VW.

Genus EUPLECTES Swains.

The limits of, and arrangement of species within, this genus follow Delacour & Edmond-Blanc (1933–4).

Euplectes orix turgidus Clancey Red Bishopbird

Euplectes orix turgidus Clancey, Bull. Br. Orn. Club, 78, 1958: 96. Citrusdal, Cape Province; C.B.C. 1963: 56.

Euplectes orix orix; Vincent, 1952: 107 (in part); McLachlan & Liversidge, 1957: 436 (in part); Praed & Grant, 1963: 598 (in part).

An abundant breeding resident wherever suitable reed-beds exist for nesting and therefore naturally more generally distributed in the Winter Rainfall area than on the Karoo.

B, BW 2, C 2, Ce 1, Ce 2, **Cl 1**, Cl 2, **Cn**, Ct, **D**, **F**, **H**, K, L, M, MB, N 3, N 4, O, P, PA, Pr, R, **Rb**, Rv 1, **S**, Sw 1, **T**, **U**, V, VW, W, **Wo 1**, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R. Col.								2	5	9	4	
Ind.							1	18	16	21	11	1
Karoo Col.			2									

Euplectes afra taha Smith Golden Bishopbird

Euplectes taha A. Smith, Report of the expedition for exploring central Africa, 1836: 50. Near Kurrichane.

Euplectes afra taha; Vincent, 1952: 107; Praed & Grant, 1963: 605.

Euplectes afer taha; McLachlan & Liversidge, 1957: 438.

One record from the Philipstown District; but probably occurs more frequently in the north-east as a visitor from the Free State.

P.

Euplectes capensis (L.) Yellow Bishopbird

For races in Cape Province, see Winterbottom (1959*c*).

a. *Euplectes capensis capensis* (L.)

Loxia capensis Linnaeus, Systema naturae, ed. 12, 1, 1766: 306. Cape of Good Hope.

Euplectes capensis capensis; Vincent, 1952: 107 (in part); Praed & Grant, 1963: 602; C.B.C., 1963: 50.

Coliuspasser capensis capensis; McLachlan & Liversidge, 1957: 437.

A common, breeding resident in streamside vegetation and fields of grain and lupins in the Winter Rainfall area from Malmesbury east.

Ct, L, Lg, M, **MB**, O, **Rb**, Rv 1, Rv 2, **S**, Sw 1, Sw 2, T, **V**, **Wo 1**, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.							1	22	52	37	7	
Karoo											1	

b. *Euplectes capensis macrorhynchus* Roberts

Euplectes capensis macrorhynchus Roberts, Ann. Transv. Mus., 6, 1919: 117. Piketberg; Praed & Grant, 1963: 603; C.B.C., 1963: 56.

Euplectes capensis capensis; Vincent, 1952: 107 (in part); Macdonald, 1957: 161.

Coliuspasser capensis macrorhynchus; McLachlan & Liversidge, 1957: 437.

Replaces the preceding from about the Berg River north along the western mountains to Springbok.

C 2, Ce 1, **Ce 2**, **Cl 1**, Cl 2, **Ct**, **N 3**, **V**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1	9	12	1	

Euplectes progne progne (Bodd.) Sakabula

Emberiza progne Boddaert, Table des planches enluminéez . . . , 1783: 39. Cape of Good Hope.

Diatropura procne procne; Vincent, 1952: 108.

Diatropura progne progne; McLachlan & Liversidge, 1957: 441.

Coliuspasser progne progne; Praed & Grant, 1963: 614.

Euplectes progne progne; C.B.C., 1963: 66.

An occasional straggler from the Highveld grasslands, recorded from Beaufort West and Kareekloof. A specimen from Blouberg in the South African Museum was, however, almost certainly an escape from captivity.

BW 2, H, **S**.

Genus PADDA Reichb.

[**Padda oryzivora** (L.) Java Sparrow

Loxia oryzivora Linnaeus, Systema naturae, ed. 10, 1758: 173. Asia.

Padda oryzivora; C.B.C., 1963: 66.

A record from Bredasdorp by Broekhuysen (see Robinson, Robinson & Winterbottom, 1960) is considered to be of an escape from captivity.]

Genus AMADINA Swains.

Amadina erythrocephala erythrocephala (L.) Red-headed Finch

Loxia erythrocephala Linnaeus, Systema naturae, ed. 10, 1758: 172. Africa (restricted to Angola).

Amadina erythrocephala; Vincent, 1952: 109; Macdonald, 1957: 161; Roberts, 1957: 441; Praed & Grant, 1963: 631.

Amadina erythrocephala erythrocephala; C.B.C., 1963: 66.

A breeding resident in the north-east, extending south-west as far as the Carnarvon and Prince Albert districts and westward to Kenhardt; but recent records from the Saldanha Bay area suggest that it may be extending its range.

B, BW 2, Cn, D, **H**, **K**, P, **PA**, Pr, R, S, U.

Genus ORTYGOSPIZA Sund.

Ortygospiza fuscocrissa digressa Clancey Quail Finch

Ortygospiza atricollis digressa Clancey, Durban Mus. Novit., 5, 10, 1958: 141. Umhlonga Nek, Richmond, Natal; Praed & Grant, 1963: 632; C.B.C., 1963: 56.

Ortygospiza atricollis polyzona; Vincent, 1952: 109; McLachlan & Liversidge, 1957: 456.

For reasons for the use of this name, see Clancey (1958*b*); Traylor (1963) fuses South African birds with those from further north under the name *O.a. muelleri* Zedlitz (J. Orn., Lpz., 59, 1911: 604. Sanbiti, Wembere Steppe). I have not seen topotypical examples of *muelleri* and retain *digressa* pending personal investigation.

Known from a number of localities in the north-east (Vanwyksvlei, Kareekloof, Philipstown) and also in the extreme south-west, where it appears to be a recent arrival. Although McLachlan & Liversidge (1947) in their map have joined up these localities, I have no evidence that the bird occurs in the intervening area. It inhabits short grass country, usually in the vicinity of water.

Cn, H, P, S, Sw 1, T.

Genus LAGONOSTICTA Cab.

[**Lagonosticta rubricata rubricata** (Licht.) Blue-billed Firefinch

Fringilla rubricata Lichtenstein, Verzeichniss der Doubletten . . . , 1823: 27. Kaffirland (restricted to Uitenhage, Stresemann, Annls Mus. r. Congo belge, N. Sér. 4to, Zool., 1, 1954: 81–82).

Lagonosticta rubricata rubricata; Vincent, 1952: 110; McLachlan & Liversidge, 1957: 449; Praed & Grant, 1963: 643.

A record from Swellendam needs confirmation.]

Lagonosticta senegala pallidicrissa Zedl. Red-billed Firefinch

Lagonsticta senegala pallidicrissa Zedlitz, Orn. Mber., 18, 1910: 173. Humpata, Angola; Vincent, 1952: 110; McLachlan & Liversidge, 1957: 452; Praed & Grant, 1963: 648.

Inhabits Acacia thickets along the Orange River and similar country further south. One record for Beaufort West District and said to be regular there and in the Britstown District. Also recorded from De Rust, Oudtshoorn District (Winterbottom, 1964*a*).

BW 2, H, K, N 1, N 2, **N 3**, N 4, **O**, P, **Pr**.

Genus ESTRILDA Swains.

Estrilda melanotis melanotis (Temm.) Swee Waxbill

Fringilla melanotis Temminck, Nouveau recueil de planches coloriées d'oiseaux, 36, 1823: pl. 221, fig. 1. Eastern Cape Province.

Estrilda melanotis melanotis; Vincent, 1952: 110; C.B.C., 1963: 56.

Coccopygia melanotis melanotis; McLachlan & Liversidge, 1957: 445; Praed & Grant, 1963: 649.

A forest bird of the Winter Rainfall area, formerly thought to reach its western limit at Swellendam but now known to occur on the Cape Peninsula and in several intervening localities.

Ct, L, M, **MB**, O, Rb, Rv 1, **S**, **Sw 1**, T, Wo 1.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										1		

Estrilda astrild astrild (L.) Common Waxbill

Loxia astrild Linnaeus, Systema naturae, ed. 10, 1758: 173. Canaries, America, Africa (restricted to Cape Town, Sclater & M.-Praed, Ibis, 1918: 442).

Estrilda astrild astrild; Vincent, 1952: 111; Macdonald, 1957: 163; McLachlan & Liversidge, 1957: 455; Praed & Grant, 1963: 651; C.B.C., 1963: 56.

Common in reed-beds especially in the Winter Rainfall area, extending out into the surrounding vegetation, especially Coastal Macchia and Coastal Renosterbosveld.

B, BW 2, **C 2**, **Ce 1**, **Cl 1**, Cl 2, **Cn**, **Ct**, D, F, **H**, K, L, Lg, M, MB, N 1, N 2, **N 3**, N 4, O, P, **PA**, Pr, R, **Rb**, **Rv 1**, Rv 2, **S**, Su 1, **Su 2**, **Sw 1**, Sw 2, T, U, V, VW, **W**, **Wo 1**, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	6	1						2	22	29	5	4
Karoo			1									

Genus URAEGINTHUS Cab.

Uraeginthus granatina granatina (L.) Grenadine Waxbill

Fringilla granatina Linnaeus, Systema naturae, ed. 12, 1, 1766: 319. Brazil (corrected to Angola, W. L. Sclater, Systema avium aethiopicarum, 2, 1930: 806 and restricted to Huila, Clancey, Durban Mus. Novit., 5, 1959: 256).

Granatina granatina; Vincent, 1952: 112; Macdonald, 1959: 163; McLachlan & Liversidge, 1957: 453; Praed & Grant, 1963: 662.

A Kalahari species recorded within our limits only from Hopetown.

H.

Genus VIDUA Cav.

The limits of this genus follow Delacour & Edmond-Blanc (1933–34).

Vidua funerea funerea (de Tarrag.) Dusky Indigobird

Fringilla funerea de Tarragon, Revue Zool., 1847: 180. Natal.
Hypochen funerea funerea; Vincent, 1952: 112; Praed & Grant, 1963: 665.
Hypochen funerea; McLachlan & Liversidge, 1957: 457.
Vidua funerea funerea; Friedmann, 1960: 75.

A northern form, recorded within our limits only from the Aughrabies Falls on the Orange River.

K.

Vidua macroura (Pall.) Pin-tailed Whydah

Fringilla macroura Pallas, in Vroeg's Catalogus . . . vogelen . . . dieren. Adumbratiuncula, No. 144, 1764: 3. East Indies (corrected to Angola, W. L. Sclater, Systema avium aethiopicarum, 2, 1930: 809).
Vidua macroura; Vincent, 1952: 112; McLachlan & Liversidge, 1957: 456; Friedmann, 1960: 93; Praed & Grant, 1963: 667; C.B.C., 1963: 57.

Widely distributed wherever *Estrilda astrild*, on which it foists its family cares, occurs.

B, BW 2, **C 2**, Ce 2, **Cl 1**, Ct, D, L, Lg, M, **MB**, N 1, N 2, N 3, O, P, PA, Pr, R, **Rb**, Rv 1, Rv 2, **S**, Sw 1, Sw 2, T, **U**, V, **VW**, Wo 1, **Wo 2**, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								1	6	5	1	

[**Vidua regia regia** (L.) Shaft-tailed Whydah

Emberiza regia Linnaeus, Systema naturae, ed. 12, 1, 1766: 313. Africa (restricted to southern Angola, W. L. Sclater, Systema avium aethiopicarum, 2, 1930: 810).
Vidua regia; Vincent, 1952: 112; Macdonald, 1957: 163; McLachlan & Liversidge, 1957: 457; Friedmann, 1960: 127; Praed & Grant, 1963: 669.

May occur near the Orange River in the north-east.]

Family **Thraupidae**

Genus PAROARIA Bp.

[**Paroaria coronata** (Shaw) Red-crested Cardinal

Loxia coronata Shaw, in Miller & Shaw's Cimelia physica, 1796: 4, pl. 2*a*. South America and particularly Brazil.
Paroaria coronata; C.B.C., 1963: 67.

Escapes bred in a wild state at Hermanus in 1958 but did not succeed in establishing themselves.]

Family **Fringillidae**

Genus FRINGILLA L.

Fringilla coelebs coelebs L. Chaffinch

Fringilla coelebs Linnaeus, Systema naturae, ed. 10, 1758: 179. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1903–23).

Fringilla coelebs gengleri; Vincent, 1952: 114; McLachlan & Liversidge, 1957: 467; Praed & Grant, 1963: 677.

Fringilla coelebs coelebs; Skead, 1960: 20; C.B.C., 1963: 57.

F.c. gengleri Kleinsch. is regarded as a synonym; but Vaurie (1959), who recognizes *gengleri* as differing 'only slightly from nominate *coelebs*', assigns South African birds to the latter, though on what grounds he does not say. The only South African-taken birds known to me are in the South African Museum, Cape Town, and no overseas ornithologist has ever asked to see them.

Introduced into the Cape Peninsula about 1898 and confined to the neighbourhood of Table Mountain from Hout Bay to Rondebosch, extending a little way on to the Flats in Rondebosch and Plumstead.

S.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									1	1	2	

Genus CARDUELIS Briss.

[**Carduelis carduelis** (L.) Goldfinch

Fringilla carduelis Linnaeus, Systema naturae, ed. 10, 1, 1758: 180. Europe (restricted to Sweden, Hartert, Die Vögel der paläarktischen Fauna, 1910: 39).

Carduelis carduelis; C.B.C., 1963: 66.

A specimen from Cape Town in the South African Museum is considered to have been an escape from captivity.]

Genus SERINUS Koch

Arrangement of species in this genus follows Winterbottom (1958*c*).

Serinus tottus tottus (Sparrm.) Mountain Siskin

Loxia totta Sparrman, Museum Carlsonianum, 1, 1786: pl. 18. Hottentot country (= Cape Province).

Serinus totta totta; Vincent, 1952: 115; McLachlan & Liversidge, 1957: 460.

Serinus tottus tottus; Skead, 1960: 28.

Carduelis tottus; Praed & Grant, 1963: 700.

Serinus t. tottua (sic); C.B.C., 1963: 57.

Confined to the mountains of the Winter Rainfall area, where it is a fairly common, breeding resident.

Ce 1, Ce 2, Cl 1, L, M, MB, O, PA, Rb, Rv 2, **S**, **Sw 1**, T, V, Wo 1, Wo 2, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.									3	4	2	

Serinus canicollis canicollis (Swains.) Cape Canary

Crithagra canicollis Swainson, Animals in menageries, 1838: 317. Africa (restricted to Cape of Good Hope).

Serinus canicollis canicollis; Vincent, 1952: 115; McLachlan & Liversidge, 1957: 460; Skead, 1960: 32; C.B.C., 1963: 57.

Serinus canicollis; Praed & Grant, 1963: 685.

Essentially a bird of the Winter Rainfall area, but wanders on to the adjoining parts of the Karoo and even occasionally reaches as far as the Philipstown and Victoria West districts. A common, breeding resident, especially, but by no means exclusively, in the mountains.

BW 2, C 2, Ce 1, Ce 2, **Cl 1**, **Cl 2**, L, Lg, M, **MB**, N 3, O, P, PA, Rb, Rv 1, Rv 2, **S**, **Sw 1**, Sw 2, T, **V**, **VW**, **Wo 1**, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.							2	14	36	27	14	3

Serinus scotops umbrosus Clancey Forest Canary

Serinus scotops umbrosus Clancey, Durban Mus. Novit., 7, 1964: 184. Nature's Valley, Knysna.

Serinus scotops scotops; Vincent, 1952: 115; McLachlan & Liversidge, 1957: 461; Skead, 1960: 40; C.B.C., 1963: 67.

Serinus scotops; Praed & Grant, 1963: 684.

A forest species, recorded as a straggler from Kwartelfontein, Caledon District and as a breeding resident from Swellendam east.

MB, S, Sw 1.

Serinus atrogularis (Smith) Yellow-rumped Canary

a. *Serinus atrogularis impiger* Clancey

Serinus atrogularis impiger Clancey, Durban Mus. Novit., 5, 1959: 258. Aliwal North; Skead, 1960: 55.

Poliospiza atrogularis deserti; Vincent, 1952: 116 (in part).

Serinus atrogularis deserti; McLachlan & Liversidge, 1957: 462 (in part).

Serinus atrogularis atrogularis; Praed & Grant, 1963: 691 (in part).

Serinus atrogularis; C.B.C., 1963: 67.

Known only from the Orange River valley in the extreme east of our area, intergrading with the next form in the Prieska and Kenhardt districts. Sight records of this species from the Cango Caves and Cape L'Agulhas, if correctly identified, must have been escapes from captivity.

K, P, Pr.

b. *Serinus atrogularis deserti* (Rchw.)

Poliospiza angolensis deserti Reichenow, J. Orn., Lpz., 1918: 438. Windhoek.
Poliospiza atrogularis deserti; Vincent, 1952: 116 (in part); Macdonald, 1957: 165.
Serinus atrogularis deserti; McLachlan & Liversidge, 1957: 462 (in part); Skead, 1960: 54; Praed & Grant, 1963: 691.

Replaces the preceding in the Orange River valley in Namaqualand and from Upington eastwards, extending south-east to Kareekloof, Hopetown District.

H, N 1, N 2, **N 3, N 4, U.**

Serinus alario (L.) Black-headed Canary

a. *Serinus alario alario* (L.)

Fringilla alario Linnaeus, Systema naturae, ed. 12, 1, 1766: 319. Cape of Good Hope.
Alario alario alario; Vincent, 1952: 115; McLachlan & Liversidge, 1957: 462.
Serinus alario alario; Skead, 1960: 59; C.B.C., 1963: 58.
Alario alario; Praed & Grant, 1963: 697.

Widely distributed and in places common both on the Karoo and in the Winter Rainfall area.

All districts except H, K, Pr, Rv 1, and U: **BW 2, C 2, Ce 2, Cl 1, Cn, D, F, Lg, N 3, P, PA, R, S, V, VW, W, Wo 3.**

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								3	4	3		
Karoo			1			1		1	2	1		

b. *Serinus alario leucolaema* (Sharpe)

Alario leucolaema Sharpe, Bull. Br. Orn. Club, 13, 1903: 80. Hountop River, S.W.A.; Praed & Grant, 1963: 698.
Alario alario leucolaema; Vincent, 1952: 115; Macdonald, 1957: 165; McLachlan & Liversidge, 1957: 462.
Serinus alario leucolaema; Skead, 1960: 60; C.B.C., 1963: 58.

Probably only an off-season visitor from South West Africa, which extends as far south as St. Helena Bay and as far east as Philipstown and Richmond. But see Rowan (1961*a*).

Cl 1, N 1, N 2, **N 3, N 4, P, R**, S, **V.**

Serinus flaviventris (Swains.) Yellow Canary

On the subspecies of this bird, see Winterbottom (1959*c*).

a. *Serinus flaviventris flaviventris* (Swains.)

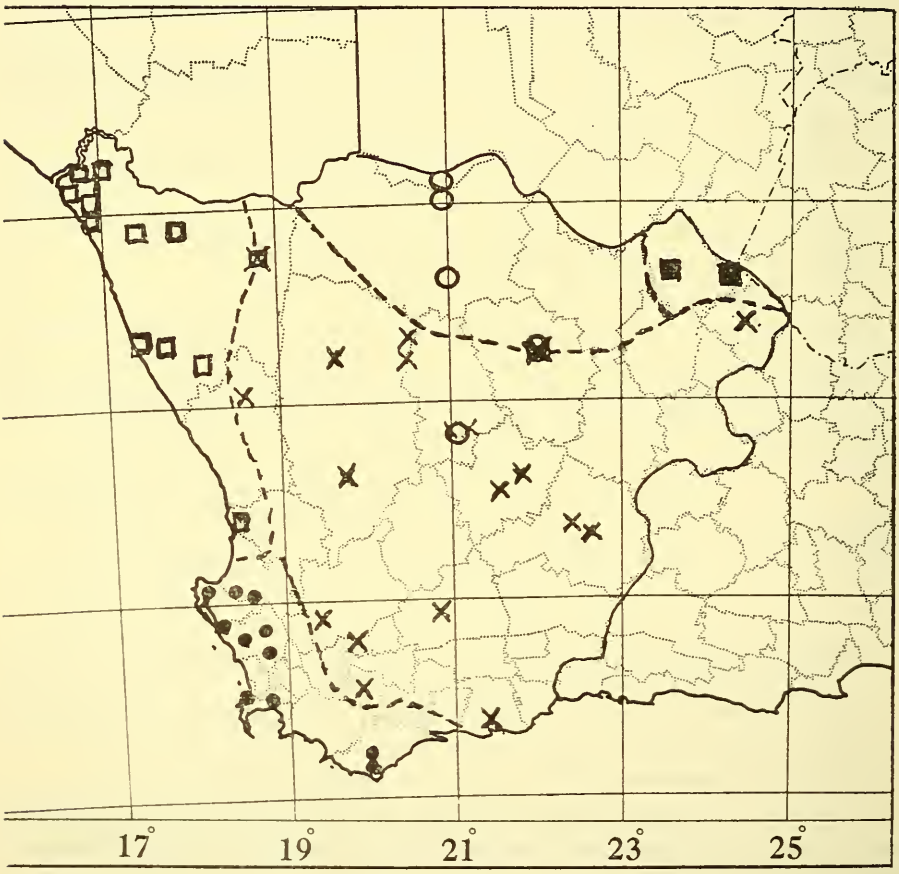
Loxia flaviventris Swainson, Zool. J., 3, 1828: 348. South Africa (restricted to Berg River, Cape Province, Roberts, Ann. Trans. Mus., 18, 1936: 316).

Serinus flaviventris flaviventris; Vincent, 1952: 114 (in part); Skead, 1960: 64 (in part); Praed & Grant, 1963: 680 (in part); C.B.C., 1963: 58 (in part).

Serinus flaviventris marshalli; Macdonald, 1957: 164.

Crithagra flaviventris flaviventris; McLachlan & Liversidge, 1957: 464 (in part).

The south-west corner, where it is an abundant species in flatter places. Ce 1, **S**, Sw 1, **T**.



Map 40. Distribution of subspecies of *Serinus flaviventris*. Dots: *S. f. flaviventris*; crosses: *S. f. uintoni*; open circles: *S. f. aurescens*; solid squares: *S. f. marshalli*; open squares: *S. f. hesperus*.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								38	55	27	5	1

b. *Serinus flaviventris quintoni* Winterbottom

Serinus flaviventris quintoni Winterbottom, Ann. S. Afr. Mus., 44, 1959: 318. Hillmore, Beaufort West; Skead, 1960: 66; Praed & Grant, 1963: 681; C.B.C., 1963: 58.

Serinus flaviventris flaviventris; Vincent, 1952: 114 (in part).

Crithagra flaviventris flaviventris; McLachlan & Liversidge, 1957: 464 (in part),

Replaces the preceding over most of the Karoo.

B, BW 1, **BW 2**, BW 3, **C 1**, **C 2**, **Ce 2**, Ce 3, Cl 2, **Cn**, Ct, D, **F**, L, **Lg**. M, MB, O, **P**, PA, R, **Rb**, **Rv 1**, Rv 2, Su 1, **Su 2**, Sw 2, **V**, VW, **W**, Wo 1, **Wo 2**, **Wo 3**.

c. *Serinus flaviventris marshalli* Shell.

Serinus marshalli Shelley, Birds of Africa, 3, 1902: 200. Potchefstroom.

Serinus flaviventris marshalli; Vincent, 1952: 114 (in part); Skead, 1960: 65; Praed & Grant, 1963: 680.

Crithagra flaviventris marshalli; McLachlan & Liversidge, 1957: 464 (in part).

The north-east corner.

H.

d. *Serinus flaviventris aurescens* Clancey

Serinus flaviventris aurescens Clancey, Durban Mus. Novit., 5, 1958: 104. Between Brandvlei and Kenhardt; Skead, 1960: 66.

Serinus flaviventris marshalli; Vincent, 1952: 114 (in part).

Crithagra flaviventris flaviventris; McLachlan & Liversidge, 1957: 464 (in part).

Kenhardt and Gordonia, intergrading with *quintoni* southwards.

K, Pr, **U**.

e. *Serinus flaviventris hesperus* Winterbottom

Serinus flaviventris hesperus Winterbottom, Bull. Br. Orn. Club, 83, 1963: 138. Port Nolloth.

Serinus flaviventris flaviventris; Vincent, 1952: 114 (in part); Skead, 1960: 64 (in part).

Crithagra flaviventris flaviventris; McLachlan & Liversidge, 1957: 464 (in part).

The west coast, from Lambert's Bay north, inland to western Bushmanland, where it intergrades with *quintoni*.

Cl 1, **N 1**, **N 2**, **N 3**, **N 4**, S, **V**.

Serinus sulphuratus sulphuratus (L.) Bully Canary

Loxia sulphurata Linnaeus, Systema naturae, ed. 12, 1, 1766: 305. Cape of Good Hope.

Serinus sulphurata sulphurata; Vincent, 1952: 114; C.B.C., 1963: 58.
Crithagra sulphurata sulphurata; McLachlan & Liversidge, 1957: 463.
Serinus sulphuratus sulphuratus; Skead, 1960: 71; Praed & Grant, 1963: 681.

Much commoner in the Winter Rainfall area than on the Karoo, whence it is recorded only from the Beaufort West and Oudtshoorn districts; but rather sparingly distributed even in the south.

BW 2, Cl 1, M, **MB**, O, Rb, **Rv 1**, **S**, **Sw 1**, T, (V), Wo 1, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.							1	2	4	3	1	

Serinus albogularis (Smith) White-throated Seed-eater

a. *Serinus albogularis albogularis* (Smith)

Crithagra albogularis A. Smith, S. Afr. Q.J., 1833: 48. South Africa (restricted to Widow Smit's Farm, near northern edge of the Piketberg, Roberts, Ann. Transv. Mus., 18, 1936: 316).
Poliospiza albogularis albogularis; Vincent, 1952: 116; Macdonald, 1957: 167.
Crithagra albigularis albigularis; McLachlan & Liversidge, 1957: 463.
Serinus albogularis albogularis; Skead, 1960: 79; Praed & Grant, 1963: 694; C.B.C., 1963: 58.

A common breeding resident in the flatter parts of the Winter Rainfall area and over most of the Karoo.

BW 1, **BW 2**, BW 3, C 1, **Ce 2**, Ce 3, Cl 1, **Cl 2**, **Cn**, **Ct**, **F**, **L**, **Lg**, M, MB, **N 1**, **N 2**, **N 3**, O, **PA**, **Pr**, **R**, **Rb**, **Rv 1**, Rv 2, **S**, SW, **Su 2**, Sw 1, Sw 2, T, **V**, **VW**, **W**, Wo 1, Wo 2, **Wo 3**.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.								14	24	10	2	
Karoo								9		4		

b. *Serinus albogularis sordahlae* (Friedm.)

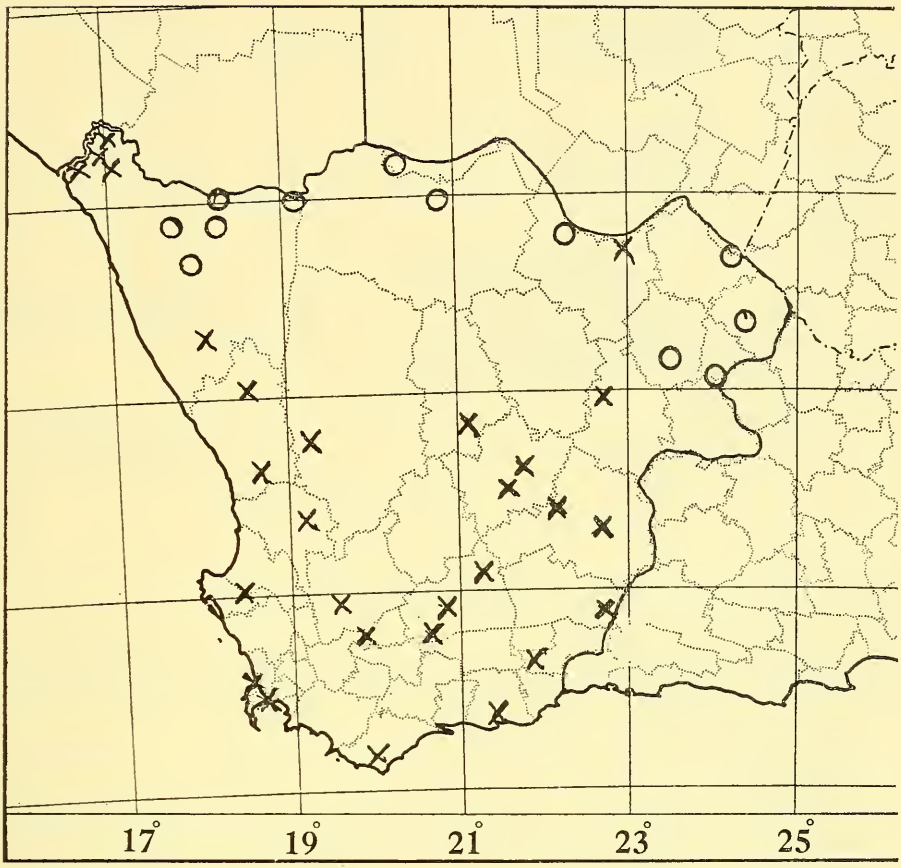
Poliospiza albogularis sordahlae Friedmann, Proc. biol. Soc. Wash., 45, 1932: 65. Mt. Brukkaros, S.W.A.; Vincent, 1952: 116; Macdonald, 1957: 167.
Crithagra albigularis sordahlae; McLachlan & Liversidge, 1957: 463.
Serinus albogularis sordahlae; Skead, 1960: 80; Praed & Grant, 1963: 695.

Bushmanland and the north-east.

B, **D**, **H**, **K**, **N 4**, **P**, **Pr**, U.

Serinus leucopterus (Sharpe) White-winged Seed-eater

Crithagra leucoptera Sharpe, Ann. Mag. nat. Hist. (4), 8, 1871: 235. South Africa (restricted to Paarl, Cape Province, Vincent, Ostrich, 20, 1949: 150).



MAP 41. Distribution of subspecies of *Serinus albogularis*. Crosses: *S. a. albogularis*; circles: *S. a. sordahlae*.

Poliospiza leucoptera; Vincent, 1952: 116; McLachlan & Liversidge, 1957: 465.

Serinus leucopterus; Skead, 1960: 83; Praed & Grant, 1963: 690; C.B.C., 1963: 58.

Confined to dense protea bush in the Winter Rainfall area from Cedarberg Mountains to Seven Weeks Poort (map 42). Resident and breeding within its limited habitat.

Ce 1, Ce 2, Cl 1, Cl 2, Lg, **M**, **S**, **T**, **Wo 1**, Wo 2.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.										3		

Map 42. Distribution of *Serinus leucopterus*.

Serinus gularis gularis (Smith) Streaky-headed Seed-eater

Linaria gularis A. Smith, Report of the expedition for exploring central Africa, 1836: 49. Grahamstown (Clancey).

Poliospiza gularis humilis; Vincent, 1952: 115; McLachlan & Liversidge, 1957: 464.

Serinus gularis humilis; Skead, 1960: 93; Praed & Grant, 1963: 687; C.B.C., 1963: 58.

Inhabits the eastern part of the Winter Rainfall area, from Cape L'Agulhas, where it is rare, east, becoming a common, breeding resident from about Swellendam. One record from Klaver, Vanrhynsdorp District, and another from Citrusdal, Clanwilliam, suggest that at times, at least, it is more widely distributed, when probably confused with the commoner S. *albogularis*.

Cl 1, **Ct**, L, **Lg**, **MB**, **O**, PA, Rv 1, **S**, **Sw 1**, **V**.

Genus EMBERIZA L.

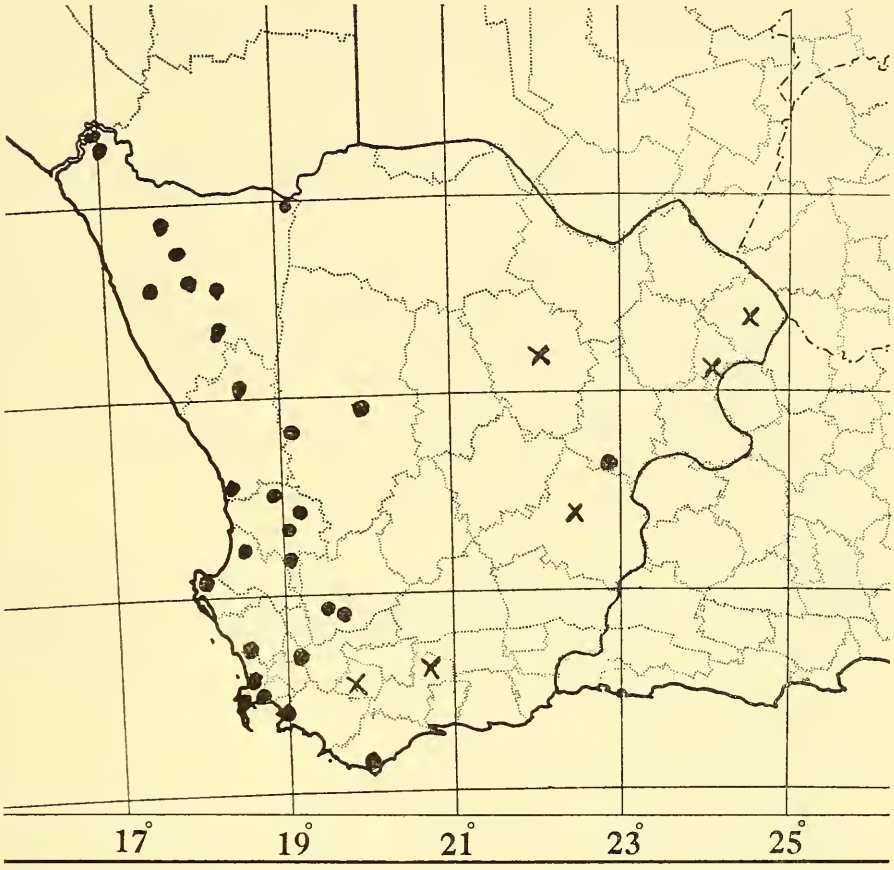
Emberiza flaviventris flaviventris Steph. Golden-breasted Bunting

Emberiza flaviventris Stephens, General zoology, 9, 2, 1815: 374. Cape of Good Hope.

Emberiza flaviventris flaviventris; Vincent, 1952: 117; Macdonald, 1957: 168; McLachlan & Liversidge, 1957: 469; Skead, 1960: 104; Praed & Grant, 1963: 705.

Recorded from Oudtshoorn and Swellendam. An eastern species and the Swellendam record, at least, probably represents a straggler.

O, **Sw 1**.



Map 43. Distribution of subspecies of *Emberiza capensis*. Dots: *E. c. capensis*; crosses: *E. c. cinnamomea*.

Emberiza capensis L. Cape Bunting

a. *Emberiza capensis capensis* L.

Emberiza capensis Linnaeus, Systema naturae, ed. 12, 1, 1766: 310. Cape of Good Hope.

Fringillaria capensis capensis; Vincent, 1952: 117; Macdonald, 1957: 169; McLachlan & Liversidge, 1957: 468; Praed & Grant, 1963: 706; C.B.C., 1963: 58.

Fringillaria capensis klaverensis; Vincent, 1952: 117; McLachlan & Liversidge, 1957: 468.

Emberiza capensis capensis; Skead, 1960: 110.

E.c. klaverensis (Roberts, Ostrich, 8, 1937: 107. Klaver, Cape Province) is a synonym, see Macdonald (1957).

An abundant, resident, breeding species in the Winter Rainfall area and

those parts of the Karoo not occupied by the next race.

B, **BW 1**, BW 3, C 1, **C 2**, Ce 1, **Ce 2**, Ce 3, **Cl 1**, **Cl 2**, F, **K**, **Lg**, **MB**, **N 1**, **N 2**, **N 3**, **N 4**, **Rv 1**, Rv 2, **S**, Su 1, **Su 2**, **Sw 1**, T, **V**, **VW**, **W**, Wo 1, Wo 2, Wo 3.

Breeding

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
W.R.	2							6	34	28	4	1

b. *Emberiza capensis cinnamomea* (Licht.)

Fringilla cinnamomea Lichtenstein, Verzeichniss einer Sammlung von Säugethieren und Vögeln . . . Kaffernlande, 1842: 16. Vaal River.

Fringillaria capensis media; Vincent, 1952: 117; McLachlan & Liversidge, 1957: 468; Praed & Grant, 1963: 707; C.B.C., 1963: 59.

Emberiza capensis media; Skead, 1960: 111.

For use of this name instead of *media* (Sharpe), see Clancey (1964*a*). Replaces the previous subspecies in the east.

B, **BW 2**, **Cn**, **Ct**, **D**, H, L, **M**, **O**, **P**, **PA**, **R**, **Rb**, **Sw 2**.

Emberiza tahapisi tahapisi Smith — Rock Bunting

Emberiza tahapisi A. Smith, Report of the expedition for exploring central Africa, 1836: 48. Sources of Vaal River, south-east Transvaal; Skead, 1960: 117.

Fringillaria tahapisi; Vincent, 1952: 118; Macdonald, 1957: 169; McLachlan & Liversidge, 1957: 468.

Fringillaria tahapisi; Praed & Grant, 1963: 709.

A straggler from further north, recorded only from Philipstown.

P.

Emberiza impetuani Smith — Lark-like Bunting

a. *Emberiza impetuani impetuani* Smith

Emberiza impetuani A. Smith, Report of the expedition for exploring central Africa, 1836: 48. Between Nu-Gariep and the Tropic = eastern Botswana.

Fringillaria impetuani; Vincent, 1952: 118 (in part); McLachlan & Liversidge, 1957: 467 (in part).

Fringillaria impetuani impetuani; Macdonald, 1957: 169; Praed & Grant, 1963: 710.

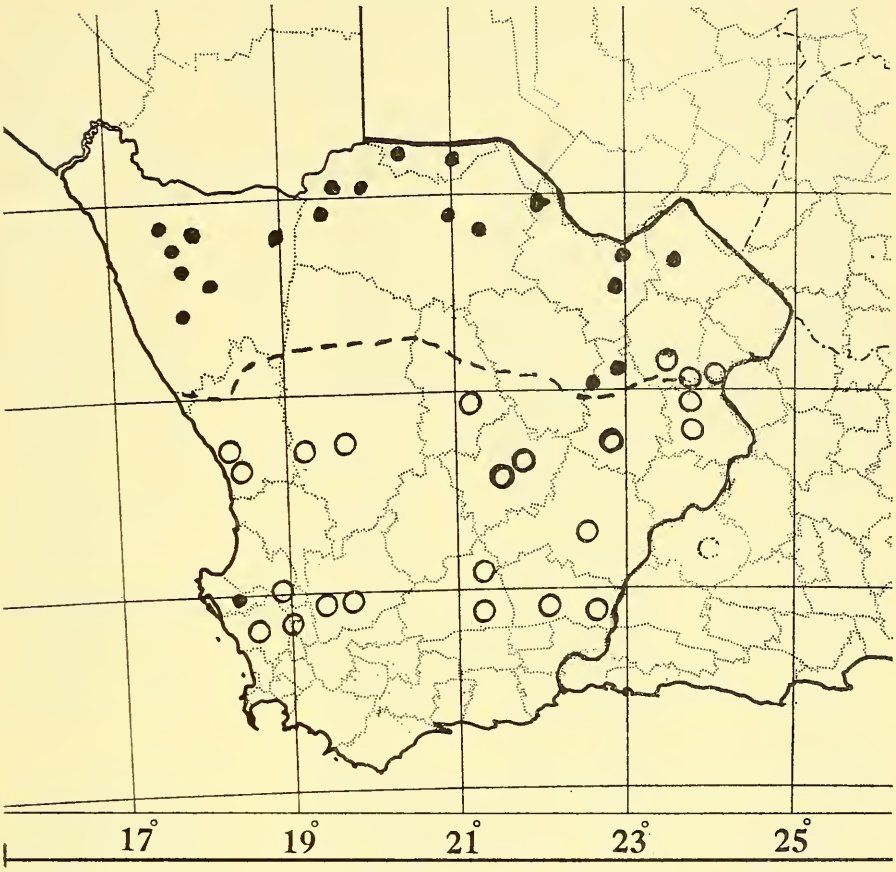
Emberiza impetuani impetuani; Skead, 1960: 123.

Common, and at times extremely abundant, all over the northern part of the Karoo.

Cn, **H**, **K**, **N 1**, N 2, **N 3**, **N 4**, **P**, **Pr**, **U**, **VW**.

b. *Emberiza impetuani sloggetti* (Macdonald)

Fringillaria impetuani sloggetti Macdonald, 1957: 170. Deelfontein, Cape Province; Praed & Grant, 1963: 711; C.B.C., 1963: 59.



Map 44. Distribution of subspecies of *Emberiza impetuani*. Dots: *E. i. impetuani*; open circles: *E. i. sloggetti*.

Fringillaria impetuani; Vincent, 1952: 181 (in part); McLachlan & Liversidge, 1957: 467 (in part).

Emberiza impetuani sloggetti; Skead, 1960: 123.

Replaces the preceding race in the southern part of the Karoo and in the Winter Rainfall area.

B, BW 1, **BW 2**, BW 3, C 1, **C 2**, Ce 1, **Ce 2**, **Ce 3**, Cl 1, Cl 2, **D**, **F**, **Lg**, M, MB, **PA**, **R**, Rv 2, **S**, Su 1, Su 2, Sw 1, T, **V**, **VW**, **W**, Wo 1, Wo 3.

Breeding

I II III IV V VI VII VIII IX X XI XII

W.R. 5

Gazetteer of type localities and other places mentioned in the text

(*Note.*—District capitals are only included when they are also type localities.)

Agulhas Bank	35°S., 20°E.
Bain's Kloof	33°38′S., 19°01′E.
Banken	29°30′S., 18°50′E.
Banksfontein	31°15′S., 21°20′E.
Barrydale	33°54′S., 20°43′E.
Beaufort West	32°20′S., 26°36′E.
Berg River	33°S., 18°30′E.
Bitterfontein	31°01′S., 18°18′E.
Bloubergstrand	33°45′S., 18°30′E.
Blouheuvel	32°30′S., 20°30′E.
Bontebok Park	see Swellendam
Brandvlei, Calvinia	30°30′S., 20°30′E.
Brandvlei, Worcester	33°40′S., 19°26′E.
Breede River	33°45′S., 19°30′E.
Bulshoek	32°00′S., 18°40′E.
Bushman Flats	29°S., 18°30′E.
Cape District	see Cape Town
Cape Infanta	34°20′S., 20°50′E.
Cape L'Agulhas	34°50′S., 20°E.
Cape of Good Hope	34°21′S., 18°30′E.
Cape Peninsula	From Cape of Good Hope to Cape Town
Cape Town	33°56′S., 18°29′E.
Cedarberg Mts.	32°22′S., 19°10′E.
Citrusdal	32°40′S., 19°E.
Claremont	Suburb of Cape Town
Cloete's Pass	30°S., 21°45′E.
Cogman's Kloof	33°49′S., 20°06′E.
De Aar	30°29′S., 24°01′E.
De Hoop	34°26′S., 20°25′E.
De Rust	33°30′S., 22°30′E.
Deelfontein	31°02′S., 23°47′E.
Dikbome	32°45′S., 21°20′E.
Doornbaai	31°45′S., 18°10′E.
Duiwenhok R.	34°20′S., 21°E.
Dwyka R.	33°S., 21°30′E.
Garies	30°33′S., 18°E.
Goodhouse	28°55′S., 18°10′E.
Gouritz R.	34°12′S., 21°44′E.
Gouda	33°15′S., 19°02′E.
Great Brak R.	34°05′S., 22°10′E.
Groene R.	30°50′S., 17°40′E.
Grootderm	28°32′S., 16°37′E.
Grootvadersbosch	33°55′S., 20°40′E.
Heere Logement	32°S., 18°35′E.
Hermanus	34°25′S., 19°15′E.
Hex R.	33°30′S., 19°40′E.
Hillmore	32°25′S., 26°40′E.
Hopetown	29°36′S., 24°05′E.
Hoop-en-Uitkoms	33°10′S., 19°25′E.
Hottentots-Holland Mts.	34°10′S., 18°50′E.
Hout Bay	34°03′S., 18°20′E.
Jagersberg	30°30′S., 21°55′E.
Kamiesberg	30°11′S., 18°E.
Kareekloof	29°45′S., 23°25′E.
Karoopoort	33°15′S., 19°40′E.
Kenhardt	29°18′S., 21°09′E.
Kersefontein	33°34′S., 18°42′E.
Klaarstroom	33°20′S., 22°32′E.
Klaver	31°47′S., 18°37′E.
Klipfontein	31°35′S., 20°05′E.
Koegasbrug	29°03′S., 22°10′E.
Koekemoers R.	32°25′S., 21°50′E.
Lambert's Bay	32°05′S., 18°19′E.
Langebaan Lagoon	See Saldanha Bay
Langeberg Mts.	30°40′S., 18°40′E.
Leipoldtville	32°15′S., 18°30′E.
Lokenburg	31°30′S., 19°15′E.
Louisvale	28°30′S., 21°10′E.
McDougall Bay	29°15′S., 16°52′E.
McGregor	34°S., 20°E.
Malmesbury	33°28′S., 18°44′E.
Mamre	33°30′S., 18°28′E.
Matjesvlei	33°26′S., 21°43′E.
Matjiesfontein	33°14′S., 20°33′E.
Melton Wold	31°30′S., 22°45′E.
Merweville	32°40′S., 21°30′E.
Monazite Mine	31°S., 18°40′E.
Muiskraal	33°54′S., 21°13′E.
Newlands	Suburb of Cape Town
Nieuwerust	31°15′S., 18°21′E.
Nieuweveld Mts.	32°05′S., 22°E.
Noisabis	28°S., 17°12′E.
Nuwejaarsfontein	30°50′S., 24°E.
Olifants R.	From near Tulbagh to Papendorp
Orange R.	Forms northern boundary of the area
Paarl	33°44′S., 18°58′E.
Pampoenpoort	31°05′S., 22°35′E.
Papendorp	31°40′S., 18°10′E.

Pella	29°02′S., 19°06′E.
Perdegrasvlei	31°30′S., 21°57′E.
Philipstown	30°27′S., 24°38′E.
Piketberg	32°54′S., 18°45′E.
Pofadder	29°09′S., 18°54′E.
Port Nolloth	29°16′S., 16°52′E.
Potberg Mts.	34°30′S., 24°30′E.
Prieska	29°39′S., 22°44′E.
Richtersveld	28°30′S., 16°55′E.
Riet R.	31°45′S., 21°E.
Rietvlei	33°50′S., 18°30′E.
Riviersonderend Mts.	34°04′S., 19°35′E.
Robinson Pass	33°50′S., 22°03′E.
Roggeveld Mts.	32°S., 20°E.
Rondawel	33°15′S., 22°40′E.
Rondebosch	Suburb of Cape Town
Rondevlei	34°04′S., 18°39′E.
Ruiterbos	33°55′S., 22°05′E.
Saldanha Bay	33°S., 18°E.
Schrywershoek	See Saldanha Bay
Silverfontein	29°55′S., 18°03′E.
Smartt Syndicate Dam	30°20′S., 23°17′E.
Sneeuwberg Mts.	31°45′S., 24°30′E.
Southfield	Suburb of Cape Town
Springbok	29°40′S., 17°52′E.
Still Bay	34°23′S., 21°29′E.
Swartberg Mts.	33°30′S., 22°E.
Swellendam	34°01′S., 20°27′E.
Table Mt.	See Cape Town
Tokai	On eastern slopes of Table Mt.
Touws R.	33°20′S., 20°04′E.
Twenty-four Rivers	33°S., 19°E.
Upington	28°25′S., 21°15′E.
Vaal–Orange Confluence	29°S., 23°35′E.
Vanrhynsdorp	31°36′S., 18°44′E.
Vanwyksvlei	30°22°S., 21°50′E.
Vensterklip	Piketberg Mt.
Verkeerdevlei	33°20′S., 19°55′E.
Verlorenvlei	32°18′S., 18°21′E.
Vrolijkheid	33°58′S., 19°55′E.
Wagenaarskraal	31°47′S., 22°49′E.
Wallekraal	30°25′S., 17°30′E.
Washbank	32°30′S., 24°30′E.
Widow's R.	31°50′S., 18°40′E.
Ysterfontein	33°25′S., 18°15′E.
Zak R.	29°40′S., 21°05′E.
Zoetendalsvlei	34°44′S., 20°E.

References

Acocks, J. H. P. 1953. Veld types of South Africa. *Mem. bot. Surv. S. Afr.* (**28**): i–iv, 1–192.

Adamson, R. S. 1938. *The vegetation of South Africa.* London: British Empire Vegetation Committee.

Amadon, D. 1956. Remarks on the starlings, family Sturnidae. *Am. Mus. Novit.* (**1803**): 1–41.

Ashton, E. H. 1945. Notes on the birds of Hermanus. *Ostrich* **16:** 157–68.

Ashton, E. H. 1954. Fourth progress report: bird ringing 1952–53. *Ostrich* **25:** 130–8.

Bakker, E. M. van Zinderen. 1962. Botanical evidence for Quaternary climates in Africa. *Ann. Cape prov. Mus.* **2:** 16–31.

Beirne, B. P. 1952. *The origin and history of British fauna.* London.

Benson, C. W. 1956. The relationship of *Passer griseus* (Vieillot) & *Passer diffusus* (Smith), with the description of a new race of the latter. *Bull. Br. Orn. Club* **76:** 38–42.

Blaker, D. 1966. Notes on the sandplovers *Charadrius* in southern Africa. *Ostrich* **37:** 95–102.

Blignaut, J. 1958. European Starling *Sturnus vulgaris* at Uniondale. *Ostrich* **29:** 49.

Bock, W. J. 1956. A generic revision of the family Ardeidae (Aves). *Am. Mus. Novit.* (**1779**): 1–49.

Bock, W. J. 1958. A generic review of the plovers (Charadriinae, Aves). *Bull. Mus. comp. Zool. Harv.* **118:** 28–97.

Bowen, W. W. 1933. African bird distribution in relation to temperature and rainfall. *Ecology* **14:** 247–71.

British Ornithologists' Union Taxonomic Sub-committee. 1956. First Report. *Ibis* **95:** 161.

Broekhuysen, G. J. 1938. African Pied Wagtail (*Motacilla aguimp vidua*) recorded from the vicinity of Cape Town. *Ostrich* **10:** 141–2.

Broekhuysen, G. J. 1942. Two rare plovers recorded from the neighbourhood of Cape Town. *Ostrich* **13:** 44–5.

Broekhuysen, G. J. 1963. The breeding biology of the Orange-breasted Sunbird *Anthobaphes violacea* (Linnaeus). *Ostrich* **34**: 187–274.
Broekhuysen, G. J. 1966. The avifauna of the Cape 'Protea-heath Macchia' habitat in South Africa. *Ostrich Suppl.* (**6**): 323–324.
Broekhuysen, G. J. & Meiklejohn, M. F. M. 1941. Observations on Palaearctic waders & European swallows in the Cape. *Ostrich Suppl.* (**1**): [i–iii], 1–38.
Brooke, R. K. 1959. Avian highlights of a journey across southern Africa. *Ostrich* **30**: 82–3.
Brooke, R. K. 1964. On the races of the White-rumped Swift *Apus caffer*. *Bull. Br. Orn. Club* **84**: 62–4.
Burchell, W. J. 1822. *Travels in the interior of southern Africa*. **1**. London: Longman, etc.
Cape Bird Club. 1963. *A check list of the birds of the south western Cape*. Cape Town: Cape Bird Club.
Chapin, J. P. 1932. Birds of the Belgian Congo. Part 1. *Bull. Am. Mus. nat. Hist.* **65**: i–x, 1–756.
Chapin, J. P. 1953. Birds of the Belgian Congo. Part 3. *Bull. Am. Mus. nat. Hist.* **75A**: 1–821.
Clancey, P. A. 1954*a*. Races of the crombec *Sylvietta rufescens* (Vieillot) occurring in the South African subcontinent. *Bull. Br. Orn. Club* **74**: 64–70.
Clancey, P. A. 1954*b*. Comments on geographical variation in the Tit-babbler *Parisoma subcaeruleum* (Vieillot) and description of a new race from the high interior of Natal. *Bull. Br. Orn. Club* **74**: 30–33.
Clancey, P. A. 1955. Geographical variation in the Fairy Flycatcher *Stenostira scita* (Vieillot) of South Africa. *Bull. Br. Orn. Club* **75**: 1–3.
Clancey, P. A. 1956. Geographical variation in the southern African populations of *Dicrurus adsimilis* (Bechstein). *Bull. Br. Orn. Club* **76**: 79–85.
Clancey, P. A. 1957*a*. The South African races of the Speckled Mousebird *Colius striatus* Gmelin. *Bull. Br. Orn. Club* **77**: 26–29.
Clancey, P. A. 1957*b*. Miscellaneous taxonomic notes on African birds, IX. *Durban Mus. Novit* **5**: 45–50.
Clancey, P. A. 1957*c*. On the range and status of *Certhilauda falcirostris* Reichenow, 1916: Port Nolloth. *Bull. Br. Orn. Club* **77**: 133–137.
Clancey, P. A. 1958*a*. Polytypic variation in the sparrow *Passer melanurus* (Müller). *Bull. Br. Orn. Club* **78**: 56–60.
Clancey, P. A. 1958*b*. Miscellaneous taxonomic notes on African birds, XI. *Durban Mus. Novit.* **5**: 126–141.
Clancey, P. A. 1959*a*. On the race of Cattle Egret *Ardeola ibis* (L). occurring in the Ethiopian zoogeographical region. *Bull. Br. Orn. Club* **79**: 13–14.
Clancey, P. A. 1959*b*. The races of the Karoo Robin *Erythropygia coryphaeus* (Lesson). *Ostrich* **30**: 42–44.
Clancey, P. A. 1959*c*. Geographical variation in the Tit-babbler *Parisoma subcaeruleum* (Vieillot). *Ostrich* **30**: 41–42.
Clancey, P. A. 1959*d*. Miscellaneous taxonomic notes on African birds, XII. *Durban Mus. Novit.* **5**: 172–178.
Clancey, P. A. 1959*e*. The South African races of the Golden-tailed Woodpecker *Campethera abingoni* (Smith). *Bull. Br. Orn. Club* **79**: 70–78.
Clancey, P. A. 1959*f*. Miscellaneous taxonomic notes on African birds, XIII. *Durban Mus. Novit.* **5**: 197–218.
Clancey, P. A. 1959*g*. Notes on some Grey-headed Sparrows from Kenya Colony. *Bull. Br. Orn. Club* **79**: 131–132.
Clancey, P. A. 1960*a*. On the races of *Prinia pectoralis* (Smith). *Bull. Br. Orn. Club* **80**: 15–16.
Clancey, P. A. 1960*b*. Miscellaneous taxonomic notes on African birds, XV. *Durban Mus. Novit.* **6**: 13–45.
Clancey, P. A. 1960*c*. On some interesting bulbuls *Pycnonotus* sp. from the Transvaal. *Bull. Br. Orn. Club* **80**: 100–101.
Clancey, P. A. 1960*d*. The races of the Bokmakierie *Telophorus zeylonus* (Linnaeus), with the characters of a new form from South-West Africa. *Bull. Br. Orn. Club* **80**: 121–124.
Clancey, P. A. 1961*a*. Miscellaneous taxonomic notes on African birds, XVI. *Durban Mus. Novit.* **6**: 79–104.
Clancey, P. A. 1961*b*. On the character and range of *Columba guinea bradfieldi* (Roberts), 1931. *Ostrich* **32**: 142–143.
Clancey, P. A. 1962. The South African races of the Familiar Chat *Cercomela familiaris* (Stephens). *Ostrich* **33** (4): 24–28.

CLANCEY, P. A. 1963*a*. Miscellaneous taxonomic notes on African birds, XX. *Durban Mus. Novit.* **6**: 231–264.

CLANCEY, P. A. 1963*b*. On the validity and range of *Apus affinis theresae* Meinertzhagen, 1949. *Ostrich* **34**: 113.

CLANCEY, P. A. 1963*c*. The House Sparrow on the Atlantic seaboard of the Cape. *Ostrich* **34**: 168.

CLANCEY, P. A. 1964*a*. On *Fringilla cinnamomea* Lichtenstein, 1842. *Bull. Br. Orn. Club* **84**: 39.

CLANCEY, P. A. 1964*b*. On the original description of *Passer iagoensis motitensis* Smith. *Bull. Br. Orn. Club* **84**: 110.

CLANCEY, P. A. 1966. On variation in the austral populations of *Oena capensis* (Linnaeus). *Bull. Br. Orn. Club* **86**: 112–115.

CLANCEY, P. A. & HOLLIDAY, C. S. 1951. A systematic revision of the races of *Lamprocolius nitens* (Linnaeus) endemic to the South African subcontinent. *Ostrich* **22**: 111–116.

CLANCEY, P. A. & WINTERBOTTOM, J. M. 1961. On racial variation in *Zosterops pallida* Swainson, *sensu strict. Bull. Br. Orn. Club* **81**: 35–36.

CLARK, J. D. 1959. *The prehistory of southern Africa.* Harmondsworth: Penguin Books.

COLE, D. T. 1962. House Sparrows in northern Cape and Bechuanaland Protectorate. *Ostrich* **33**: (3): 54–55.

COOKE, H. B. S. 1962. The Pleistocene environment in southern Africa: hypothetical vegetation in southern Africa during the Pleistocene. *Ann. Cape prov. Mus.* **2**: 11–15.

COURTENAY-LATIMER, M. 1961. On the races of the Stonechat occurring in the Cape Province, South Africa, with the description of a new form. *Bull. Br. Orn. Club* **81**: 114–117.

COURTENAY-LATIMER, M. 1963. Birds of the state alluvial diamond diggings. *Ann. Cape. prov. Mus.* **3**: 44–56.

DARLINGTON, P. J. 1959. Area, climate and evolution. *Evolution* **13**: 488–510.

DEIGNAN, H. J. 1960. The oldest name for the Bat-eating Pern. *Bull. Br. Orn. Club* **80**: 121.

DELACOUR, J. 1943. A revision of the genera and species of the family Pycnonotidae (Bulbuls). *Zoologica, N.Y.* **28**: 17–25.

DELACOUR, J. 1944. The family Nectariniidae. *Zoologica, N.Y.* **29**: 17–38.

DELACOUR, J. 1954–59. *The waterfowl of the world.* **1–3.** London: Country Life.

DELACOUR, J. & EDMOND-BLANC, F. 1933–34. Monographie des veuves. (Revision des genres *Euplectes* et *Vidua.*) *Oiseau Revue fr. Orn.* (n.s.) **3**: 519–562, 687–726; **4**: 52–110.

DELACOUR, J. & MAYR, E. 1945. The family Anatidae. *Wilson Bull.* **59**: 3–55.

DE MEILLON, B., DAVIS, D. H. S. & HARDY, F. 1961. *Plague in southern Africa.* **1.** Pretoria: Government Printer.

DIXON, K. L. 1959. Ecological and distributional relations of desert scrub birds of western Texas. *Condor* **61**: 397–409.

EBER, G. 1961. Vergleichende Untersuchungen am flugunfähigen Teichhuhn *Gallinula chl. chloropus* und an der flugunfähigen Inselralle *Gallinula nesiotis. Bonn. zool. Beitr.*, **12**: 247–315.

FEELY, J. M. 1950. Points from Letters (k). *Ostrich* **21**: 114.

FRINZEL, J. E. 1964. Avian populations in four herbaceous communities in southeastern Wyoming. *Condor* **66**: 496–510.

FRIEDMANN, H. 1955. The honeyguides. *Bull. U.S. natn. Mus.* **208**: i-vii, 1–292.

FRIEDMANN, H. 1960. The parasitic weaverbirds. *Bull. U.S. natn. Mus.* **223**: i–viii, 1–196.

GILL, E. L. 1952. Some first records for the Cape. *Bokmakierie* **4**: 27–29.

GRABER, R. R. & GRABER, J. W. 1963. A comparative study of bird populations in Illinois, 1906–1909 and 1956–1958. *Bull. Ill. St. nat. Hist. Surv.* **28**: 383–528.

HAAGNER, A. K. 1909. Miscellaneous notes. *Jl S. Afr. Orn. Un.* **5**: 87–90.

HALL, B. P. 1954. Notes on the type locality of *Eupodotis vigorsii* (Smith). *Bull. Br. Orn. Club* **74**: 90.

HALL, B. P. 1963. The francolins, a study in speciation. *Bull. Br. Mus. nat. Hist.* Zool. **10**: 105–204.

HALL, B. P. & TRAYLOR, M. A. 1959. The systematics of the African Grey Tits *Parus afer* and *Parus griseiventris. Bull. Br. Orn. Club* **79**: 42–46.

HARE, H. L. 1915. The birds of Philipstown. *Jl S. Afr. Orn. Un.* **11**: 1–18.

HARE, H. L. 1932. Vultures, crows and sheep. *Ostrich* **3**: 56–58.

HEWITT, J. 1931. *A guide to the vertebrate fauna of the eastern Cape Province.* Part I. Mammals and birds. Grahamstown: Albany Museum.

HOESCH, W. & NIETHAMMER, G. 1940. Die Vogelwelt Deutsch-Süd-westafrikas namentlich des Damara- und Namalandes. *J. Orn., Lpz.* **88** (Sonderheft): [i-vii], 1–404.

Iablokoff-Khnzorian, S. M. 1961. Sur le rôle des zones pour l'evolution. *Zool. Zh.* **40:** 808.
Immelmann, K. 1963. Drought adaptations in Australian desert birds. *Proc. int. orn. Congr.* **13** (2): 649–657.
Irwin, M. P. S. 1958. The relationships of the bulbuls *Pycnonotus barbatus* and *P. nigricans*, *Occ. Pap. natn. Mus. Sth. Rhod.* **22:** 198–201.
Irwin, M. P. S. 1963. Systematic and distributional notes on southern African birds. (1). A revision of the south-west arid races of the courser *Rhinoptilus africanus* (Temminck), *Durban Mus. Novit.* **7:** 1–17.
Keast, A. J. 1958. Seasonal movements and geographic variations in the Australian Wood-Swallows. (Artemidae). *Emu* **58:** 207–218.
Keast, A. J. 1961. Bird speciation on the Australian continent. *Bull. Mus. comp. Zool. Harv.* **123:** 307–495.
Keet, J. D. M. 1949. *Report of the long term agricultural policy committee.* Windhoek: Meinert.
Klopfer, P. H. & MacArthur, R. H. 1960. Niche size and faunal diversity. *Am. Nat.* **94:** 293–299.
Krige, A. V. 1927. An examination of the Tertiary and Quaternary changes of sea level in South Africa. *Annale Univ. Stellenbosch* (A) **5:** 1–81.
Lack, D. 1937. Review of bird census work and bird population problems. *Ibis* **1937:** 369–375.
Lack, D. 1956. The species of *Apus. Ibis* **98:** 34–62.
Lawson, W. J. 1961*a*. The races of the Karoo Lark *Certhilauda albescens* (Lafresnaye). *Ostrich* **32:** 64–74.
Lawson, W. J. 1961*b*. The South African races of the Emerald-spotted Wood Dove *Turtur chalcospilos* (Wagler). *Bull. Br. Orn. Club* **81:** 87–90.
Lawson, W. J. 1962*a*. The genus *Pycnonotus* in southern Africa. *Durban Mus. Novit.* **6:** 165–180.
Lawson, W. J. 1962*b*. Systematic notes on African birds. I. *Durban Mus. Novit.* **6:** 213–230.
Lawson, W. J. 1965. The geographical races of the Bar-throated Apalis *Apalis thoracica* (Shaw & Nodder) occurring in southern Africa. *Ostrich* **37:** 3–8.
Layard, E. L. 1867. *The birds of South Africa.* Cape Town: Juta; London: Longman, Green.
Levyns, M. R. 1964. Migrations and origins of the Cape flora. *Trans. R. Soc. S. Afr.* **37:** 85–107,
Liversidge, R. 1962. The spread of the European Starling in the eastern Cape. *Ostrich* **33** (3): 3–6.
Liversidge, R., Broekhuysen, G. J. & Thesen, A. R. 1958. The birds of Langebaan Lagoon. *Ostrich* **29:** 95–106.
Lourens, D. C. 1963. *The Red-billed Quelea.* (D. Sc. Thesis, Univ. of Pretoria.)
Lynes, H. C. 1935. *Cisticola subruficapilla* and *lais* in southernmost Cape Province. *Ostrich* **6:** 73–88.
Macdonald, J. D. 9152*a*. Notes on the Long-billed Lark *Certhilauda curvirostris. Ibis* **94:** 122–127.
Macdonald, J. D. 1952*b*. Variation in the Karoo Robin *Erythropygia coryphaeus. Bull. Br. Orn. Club* **72:** 90–92.
Macdonald, J. D. 1952*c*. Notes on the taxonomy of the Clapper Larks of South Africa. *Ibis* **94:** 629–635.
Macdonald, J. D. 1953. The taxonomy of the Karoo and Red-backed Larks of western South Africa. *Bull. Br. mus. nat. Hist.* Zool. **1:** 321–350.
Macdonald, J. D. 1957. *Contribution to the ornithology of western South Africa. Results of the British Museum (Natural History) South West Africa expedition, 1949–50.* London: British Museum.
Mackworth-Praed, C. W. & Grant, C. H. B. 1962–63. *Birds of the southern third of Africa.* (African handbook of birds, Ser. II.) **1, 2.** London: Longmans.
McLachlan, G. R. 1955. European Starling seen in Port Elizabeth. *Ostrich* **26:** 157.
McLachlan, G. R. 1964. Tenth ringing report. *Ostrich* **35:** 101–110.
McLachlan, G. R. 1966. The first ten years of ringing in South Africa. *Ostrich Suppl.* (**6**): 255–263.
McLachlan, G. R. & Liversidge, R. 1957. *Roberts Birds of South Africa.* Johannesburg: Central News Agency.
MacLeod, J. G. R. 1952. *Cisticola juncidis terrestris* at Somerset West. *Ostrich* **23:** 55.
MacLeod, J. G. R., Murray, C. d'C. & Murray, E. M. 1951–52. The birds of Hottentots Holland. *Ostrich* **22:** 179–189; **23:** 16–25.
Markus, M. B. 1966. Avifaunal community composition in a Pretoria suburb. *Ostrich Suppl.* (**6**): 365–370.
Marshall, J. T. 1963. Rainy season nesting in Arizona. *Proc. int. orn. Congr.* **13** (2): 620–622.

MARTIN, E., MARTIN, R. & ROBINSON, J. 1962. European Stork *Ciconia ciconia* breeding in the Bredasdorp District. *Ostrich* **33**: 26.
MAYR, E. 1963. *Gallinago* versus *Capella*. *Ibis* **105**: 402–403.
MAYR, E. & AMADON, D. 1951. A classification of recent birds. *Am. Mus. Novit.* (**1496**): 1–42.
MAYR, E. & BOND, J. 1943. Notes on the generic classification of swallows, Hirundinidae. *Ibis* **85**: 334–341.
MAYR, E. & GREENWAY, J. C., *eds.* 1960. *Check-list of birds of the world.* **IX.** Cambridge, Mass.: Museum of Comparative Zoology.
MEES, G. F. 1964. A revision of the Australian owls (Strigidae and Tytonidae). *Zool. Verh.* (**65**): 1–62.
MEIKLEJOHN, M. F. M. 1939. Notes on various birds. *Ostrich* **10**: 137–140.
MEINERTZHAGEN, R. 1951. Some relationships between African, Oriental, and Palaearctic genera and species, with a revision of the genus *Monticola*. *Ibis* **93**: 443–459.
MIDDLEMISS, E. H. J. 1952–. Annual reports of the warden of Rondevlei Bird Sanctuary. *Rep. Ward. Rondevlei Bird Sanct.* **1952–**.
MIDDLEMISS, E. H. J. 1958. The Southern Pochard *Netta erythrophthalma brunnea*. *Ostrich Suppl.* (**2**): [i–ii], 1–34.
MIDDLEMISS, E. H. J. 1961.
MIDDLEMISS, E. H. J. 1962.
MIDDLEMISS, E. H. J. 1965. Rare sandpiper at Rondevlei Bird Sanctuary. *Ostrich* **36**: 147.
MITCHELL, M. J. 1961. Breeding bird populations in relation to grassland succession on the Anolka Sand Plain. *Flicker* **33**: 102–108.
MOREAU, R. E. 1950. The breeding seasons of African birds. *Ibis* **92**: 223–267; 419–433.
MOREAU, R. E. 1952. Africa since the Mesozoic, *Proc. zool. Soc. Lond.* **121**: 869–913.
MOREAU, R. E. 1957. Variation in the western Zosteropidae (Aves). *Bull. Br. Mus. nat. Hist.*, Zool. **4**: 311–433.
MOREAU, R. E. 1961. Problems of Mediterranean–Saharan migration. *Ibis* **103***a*: 373–427.
MOREAU, R. E. 1963. Vicissitudes of the African biomes in the Late Pleistocene. *Proc. zool. Soc. Lond.* **141**: 395–421.
MOREAU, R. E. 1966. The bird communities of some African vegetation types. *Ostrich Suppl.* (**6**): 265–283.
MOYNIHAN, M. 1959. Review of the family Laridae (Aves). *Am. Mus. Novit.* (**1928**): 1–42.
MUIR, J. (1940), Afrikaans bird-names in Riversdale, C.P. *Ostrich* **11**: 1–19.
PATERSON, J. M. *ed.* 1958. *A check list of the birds of the eastern Cape.* Port Elizabeth: Eastern Cape Wild Bird Society.
POCOCK, F. S., POCOCK, T. N. & WINTERBOTTOM, J. M. 1961. Additions to the list of the birds of Oudtshoorn. *Ostrich* **32**: 137.
POCOCK, F. S. & WINTERBOTTOM, J. M. 1958. A list of the birds of Oudtshoorn. *Ostrich* **29**: 19–22.
POLE-EVANS, I. B. 1936. A vegetation map of South Africa. *Mem. bot. Surv. S. Afr.* (**15**): 1–23.
POYNTON, J. C. 1960. Preliminary note on the zoogeography of the Amphibia in southern Africa. *S. Afr. J. Sci.* **56**: 307–312.
POYNTON, J. C. 1961. Contribution to the zoogeography of southern Africa. *S. Afr. J. Sci.* **57**: 75–80.
QUINTON, W. F. 1956. The Saddlebill Stork (*Ephippiorhynchus senegalensis*) seen at Beaufort West. *Ostrich* **27**: 91.
RIDE, W. D. L. & CAIN, A. J. 1954. Proposed conservation of the name *Anas punctata* Burchell, 1822. *Ibis* **95**: 318.
RIPLEY, S. D. 1945. The barbets. *Auk* **62**: 542–563.
ROBERTS, A. 1936. Ornithological notes. *Ann. Transv. Mus.* **18**: 255–269.
ROBERTS, A. 1940. *Birds of South Africa.* London: Witherby; Johannesburg: Central News Agency.
ROBERTS, A. 1941*a*. Notes on some birds of the Cape Province. *Ostrich* **11**: 112–135.
ROBERTS, A. 1941*b*. The White Stork in South Africa. *Ostrich* **12**: 31–41.
ROBERTS, A. 1942. More about the breeding of the White Stork in South Africa. *Ostrich* **13**: 17–24.
ROBERTSON, J. 1931. Birds and euclayptus trees. *Condor* **33**: 137–139.
ROBINSON, J., ROBINSON, C. ST. C. & WINTERBOTTOM, J. M. 1957. The birds of Cape L'Agulhas. *Ostrich* **28**: 147–163.
ROBINSON, J., ROBINSON, C. ST. C. & WINTERBOTTOM, J. M. 1960. Additions to the birds of Cape L'Agulhas. *Ostrich* **31**: 80–81.

ROWAN, M. K. 1961. Distribution of the races of the Blackhead Canary *Serinus alario*. *Ostrich* **32**: 134.
ROWAN, M. K. 1963*a*. Range of the Cliff Swallow. *Ostrich* **34**: 181–182.
ROWAN, M. K. 1963*b*. The Yellowbill Duck *Anas undulata* Dubois in southern Africa. *Ostrich Suppl.* **5**: i–iv, 1–56.
ROWAN, M. K. 1964. House Sparrow (*Passer domesticus*) reaches the south-western Cape. *Ostrich* **35**: 240.
ROWAN, M. K. & WINTERBOTTOM, J. M. 1963. A new bird for the South African list. *Ostrich* **34**: 249–251.
RUDEBECK, G. 1956. Aves II. III. Studies on the Sociable Weaver (*Philetairus socius*), its distribution and nesting habits. *In* HANSTRÖM, B. *et al.*, *eds. South African animal life.* **4**: 437–459. Stockholm: Almqvist & Wiksell.
SALOMONSEN, F. 1955. The evolutionary significance of migration. *Biol. Meddr.* **22**: 45–49.
SCHELPE, E. 1959. Classification of marginal vegetation. *Bokmakierie* **11**: 10.
SCHMIDT, R. K. 1965. House Sparrow *Passer domesticus* and Little Swift *Apus affinis* in the Cape Peninsula. *Ostrich* **36**: 135–136.
SCHULZE, P. R. 1947. The climates of South Africa according to the classifications of Köppen & Thornthwaite. *S. Afr. geogr. J.* **29**: 32–42.
SCLATER, W. L. 1911–12. On the birds collected by Mr. Claude H. B. Grant at various localities in South Africa. *Ibis* **1911**: 268–316, 403–67; 695–741; **1912**: 1–63.
SCOTT, K. M. F. 1954. Notes on the birds of the Diep River and Riet Vlei. *Ostrich* **25**: 25–31.
SCOTT, K. M. F., HARRISON, A. C. & MACNAE, W. 1952. The ecology of South African estuaries. II. The Klein River estuary, Hermanus, Cape. *Trans. R. Soc. S. Afr.* **33**: 324–325.
SCOTT, P. 1957. *A coloured key to the wildfowl of the world.* Slimbridge.
SERVENTY, D. L. & MARSHALL, A. J. 1957. Breeding periodicity in Western Australian birds. *Emu* **57**: 99–126.
SHARPE, R. B. 1904. On a collection of birds from the district of Deelfontein in Cape Colony. *Ibis* **1904**: 1–29; 313–367.
SHELLEY, G. E. 1900–12. *The birds of Africa.* **1–4.** London: Porter.
SKEAD, C. J. 1946. Census and study of birds in Albany open sour grassveld. *Ostrich* **17**: 222–231.
SKEAD, C. J. 1952. The Cattle Egret in the eastern Cape. *Ostrich* **23**: 186–218.
SKEAD, C. J. 1960. *The canaries, seed-eaters & buntings of southern Africa.* Johannesburg: Central News Agency.
SKEAD, C. J. 1962. The European Starling *Sturnus vulgaris* at Kingwilliamstown. *Ostrich* **33**: (2): 75.
SKEAD, C. J. 1964. Sugarbirds in the Amatole Mountains, Kingwilliamstown, Cape Province. *Ostrich* **35**: 236.
SMIT, H. A. W. 1961. The birds of De Hoop. *Rep. Dep. Nat. Conserv. C.G.H.* (**16**): 95–100.
SOUTH AFRICAN ORNITHOLOGICAL SOCIETY LIST COMMITTEE. 1956. First report. *Ostrich* **27**: 173–183.
SOUTH AFRICAN ORNITHOLOGICAL SOCIETY LIST COMMITTEE. 1958. Second report. *Ostrich* **29** 23–46.
SOUTH AFRICAN ORNITHOLOGICAL SOCIETY LIST COMMITTEE. 1959. Third report. *Ostrich* **30**: 105–116.
SOUTH AFRICAN ORNITHOLOGICAL SOCIETY LIST COMMITTEE. 1960. Fourth report. *Ostrich* **31**: 64–77.
SOUTH AFRICAN ORNITHOLOGICAL SOCIETY LIST COMMITTEE. 1961. Fifth report. *Ostrich* **32**: 75–85.
SOUTH AFRICAN ORNITHOLOGICAL SOCIETY LIST COMMITTEE. 1962. Sixth report. *Ostrich* **33** (1): 9–20.
SOUTH AFRICAN ORNITHOLOGICAL SOCIETY LIST COMMITTEE. 1963. Seventh report. *Ostrich* **34**: 40–45.
STARK, A. C. & SCLATER, W. L. 1900–06. *The birds of South Africa.* **1–4.** London: Porter.
SWANN, H. K. 1930–45. *A monograph of the birds of prey.* **1–2.** London: Wheldon & Wesley.
TRAYLOR, M. A. 1963. Revision of the Quail Finch *Ortygospiza atricollis*. *Bull. Br. Orn. Club* **83**: 141–146.
UDVARDY, M. D. F. 1963. Bird faunas of North America. *Proc. int. orn. Congr.* **13** (2): 1147–1167.
UYS, C. J. 1966. How many nest sites of the White Stork are there in South Africa? *Bokmakierie* **18**: 63.

Uys, C. J., Broekhuysen, G. J., Martin, J. & MacLeod, J. G. 1963. Observations on the breeding of the Greater Flamingo *Phoenicopterus ruber* Linnaeus in the Bredasdorp District, South Africa. *Ostrich* **34**: 129–146.

Van der Plaat, A. 1962. Lys van wilde voëls vir die Oranje-Vrystaat. *S. Afr. Avifauna Ser.* (**2**): 1–69.

Van Tyne, J. & Berger, A. J. 1959. *Fundamentals of ornithology*. New York: Wiley.

Vaurie, C. 1959–65. *The birds of the Palaearctic fauna.* **1–2.** London.

Verheyen, R. 1958. Contribution à l'anatomie de base et à la systematique des Alaudidae (Passeriformes). *Alauda* **26**: 1–25.

Vincent, J. 1952. *A check list of the birds of South Africa*. Cape Town: The Author.

Voous, K. H. 1960. *Atlas of European birds*. London: Nelson.

Voous, K. H. 1961. The generic distinction of the Gough Island Flightless Gallinule. *Bijdr. Dierk.* **31**: 75–79.

Wellington, J. H. 1955. *Southern Africa; a geographical study.* **1.** Cambridge: University Press.

Wetmore, A. 1934. A systematic classification for the birds of the world, revised and amended. *Smithson. Misc. Collns* **89** (13): 1–11.

White, C. M. N. 1949. Systematic notes on African birds. *Ibis* **1949**: 284.

White, C. M. N. 1950. Systematic notes on African birds. *Ostrich* **21**: 31–32.

White, C. M. N. 1951. Systematic notes on African birds. *Ostrich* **22**: 25–26.

White, C. M. N. 1952*a*. The status of the genus *Calamocichla*. *Ibis* **94**: 685.

White, C. M. N. 1952*b*. Systematic notes on African birds. *Ostrich* **23**: 43.

White, C. M. N. 1956*a*. Notes on African larks. I. *Bull. Br. Orn. Club* **76**: 4.

White, C. M. N. 1956*b*. Notes on the systematics of African bulbuls, *Bull. Br. Orn. Club* **76**: 155–157.

White, C. M. N. 1959. Nomadism, breeding & subspeciation in some African larks, *Bull. Br. Orn. Club* **79**: 53–57.

White, C. M. N. 1961. The African Rough-winged Swallows. *Bull. Br. Orn. Club.* **81**: 29–33.

White, C. M. N. & Moreau, R. E. 1958. Notes on the Ploceidae. *Bull. Br. Orn. Club* **78**: 141–145, 157–163.

Wicht, C. L. 1945. *Report of the Committee on the preservation of the vegetation of the south western Cape.* Cape Town: Royal Society of South Africa. (Special publication.)

Winterbottom, J. M. 1945. Summer bird notes from the western Karoo. *Ostrich* **15**: 129–132.

Winterbottom, J. M. 1946. The density of Karoo birds. *Ostrich* **16**: 172–176.

Winterbottom, J. M. 1947. The bird population of 110 acres in the Transkei. *Ostrich* **18**: 175–178.

Winterbottom, J. M. 1953. On the bird population of the Old Jeanes School Station, Mazabuka, Northern Rhodesia, 1948–49. *Ostrich* **24**: 174–181.

Winterbottom, J. M. 1955. Some bird censuses on the Kafue Flats, Northern Rhodesia. *Nth. Rhod. J.* **2**: 59–61.

Winterbottom, J. M. 1956*a*. Systematic notes on birds of the Cape Province. I. *Ostrich* **27**: 156–157.

Winterbottom, J. M. 1956*b*. Notes on some birds of the Cold Bokkeveld, Ceres District. *Ostrich* **27**: 18–27.

Winterbottom, J. M. 1956*c*. Systematic notes on birds of the Cape Province. II. *Ostrich* **27**: 158.

Winterbottom, J. M. 1956*d*. *C.B.C. News Letter* (**36**): 1–3.

Winterbottom, J. M. 1957*a*. Systematic notes on birds of the Cape Province. III, IV, V. *Ostrich* **28**: 192–194.

Winterbottom, J. M. 1957*b*. On the races of *Prinia pectoralis* (A. Smith). *Bull. Br. Orn. Club* **77**: 155–156.

Winterbottom, J. M. 1957*c*. Further records of the European Starling *Sturnus vulgaris* in the south-west Cape. *Ostrich* **28**: 237–238.

Winterbottom, J. M. 1958*a*. A review of the races of the Spike-heeled Lark *Certhilauda albofasciata* Lafresnaye. *Ann. S. Afr. Mus.* **44**: 53–67.

Winterbottom, J. M. 1958*b*. On the races of *Lybius leucomelas* (Bodd.) in South Africa. *Ann. S. Afr. Mus.* **44**: 69–72.

Winterbottom, J. M. 1958*c*. Systematic notes on birds of the Cape Province. VI. *Ostrich* **29**: 110–111.

Winterbottom, J. M. 1958*d*. The birds of De Hoop. *Rep. Dep. Nat. Conserv. C.G.H.* (**14**): 55–57.

Winterbottom, J. M. 1958*e*. African Spoonbill nesting colony on the Karoo. *Ostrich* **29**: 89.

WINTERBOTTOM, J. M. 1958*f*. Systematic notes on birds of the Cape Province. VI. *Ostrich* **29**: 157–159.
WINTERBOTTOM, J. M. 1958*g*. European Starling at Fraserburg Road. *Ostrich* **29**: 48.
WINTERBOTTOM, J. M. 1959*a*. Systematic notes on birds of the Cape Province. VII. *Ostrich* **30**: 45–46.
WINTERBOTTOM, J. M. 1959*b*. Systematic notes on birds of the Cape Province. VIII. *Ostrich* **30**: 46.
WINTERBOTTOM, J. M. 1959*c*. A review of the subspecies of the Yellow Canary *Serinus flaviventris* (Swainson). *Ann. S. Afr. Mus.* **44**: 315–321.
WINTERBOTTOM, J. M. 1959*d*. An ornithological reconnaissance of the Richtersveld. *Ostrich*. **30**: 53–64.
WINTERBOTTOM, J. M. 1959*e*. European Starling at Sutherland. *Ostrich* **30**: 88.
WINTERBOTTOM, J. M. 1959*f*. The range of the Cliff Swallow. *Ostrich* **30**: 87.
WINTERBOTTOM, J. M. 1959*g*. The range of *Anthus similis petricolus* Clancey. *Ostrich* **30**: 91.
WINTERBOTTOM, J. M. 1959*h*. Review of the races of the Cape Wagtail *Motacilla capensis* L. *Bull. Br. Orn. Club* **79**: 96–98.
WINTERBOTTOM, J. M. 1959*i*. The races of *Euplectes capensis* (L.) in the Cape Province. *Bull. Br. Orn. Club* **79**: 98–100.
WINTERBOTTOM, J. M. 1960*a*. Systematic notes on birds of the Cape Province. *Ostrich* **31**: 25–26.
WINTERBOTTOM, J. M. 1960*b*. Systematic notes on birds of the Cape Province. XI. *Ostrich* **31**: 78–80.
WINTERBOTTOM, J. M. 1960*c*. The zoogeographical affinities of the avifauna of the western Cape Province. *Ibis* **102**: 383–393.
WINTERBOTTOM, J. M. 1960*d*. Weather movements of swifts. *Bokmakierie* **12**: 3.
WINTERBOTTOM, J. M. 1960*e*. Report on the Cape Bird Club Vlei Counts, 1952–58. *Ostrich* **31**: 135–169.
WINTERBOTTOM, J. M. 1960*f*. Systematic notes on birds of the Cape Province. XIII. *Ostrich* **31**: 178–179.
WINTERBOTTOM, J. M. 1960*g*. The ecological relationships of birds in African townships. *Revue Zool. Bot. afr.* **62**: 246–260.
WINTERBOTTOM, J. M. 1961*a*. Expansion of the range of the House Sparrow. *Rep. Dep. Nat. Conserv. C.G.H.* (**16**): 92–94.
WINTERBOTTOM, J. M. 1961*b*. The birds of Vrolijkheid. *Rep. Dep. Nat. Conserv. C.G.H.* (**16**): 121–123.
WINTERBOTTOM, J. M. 1961*c*. Systematic notes on birds of the Cape Province. XIV. *Ostrich* **32**: 97–98.
WINTERBOTTOM, J. M. 1961*d*. Systematic notes on birds of the Cape Province. XV. *Ostrich* **32**: 98.
WINTERBOTTOM, J. M. 1961*e*. Systematic notes on birds of the Cape Province. XVI. *Ostrich* **32**: 137–139.
WINTERBOTTOM, J. M. 1961*f*. Systematic notes on birds of the Cape Province. XVII. *Ostrich* **32**: 139–140.
WINTERBOTTOM, J. M. 1961*g*. Remarks on the suggested tropical origin of dominant birds. *Revue Zool. Bot. afr.* **64**: 120–126.
WINTERBOTTOM, J. M. 1961*h*. Notes from Mossel Bay and Calitzdorp districts. *Ostrich* **32**: 185–186.
WINTERBOTTOM, J. M. 1962*a*. The east coast element in the South African avifauna. *Proc. Fedl Sci. Congr.* **1**: 189–194.
WINTERBOTTOM, J. M. 1962*b*. Comments on the zoogeography of southern Africa. *S. Afr. J. Sci.* **58**: 80.
WINTERBOTTOM, J. M. 1962*c*. Systematic notes on birds of the Cape Province. XVIII. *Ostrich* **33** (2): 41–42.
WINTERBOTTOM, J. M. 1962*d*. The birds of Sasmeer Township, Retreat. *Ostrich* **33** (2): 43–50.
WINTERBOTTOM, J. M. 1962*e*. Some manuscript notes of S. F. Townsend for the period 1878–1925. *Ostrich* **33** (2): 66–71.
WINTERBOTTOM, J. M. 1962*f*. Gough Island Coot in South Africa. *Ostrich* **33**: (2) 72.
WINTERBOTTOM, J. M. 1962*g*. Systematic notes on birds of the Cape Province. XIX. *Ostrich* **33** (2): 73–74.
WINTERBOTTOM, J. M. 1962*h*. Systematic notes on birds of the Cape Province. XX. *Ostrich* **33** (2): 74.

WINTERBOTTOM, J. M. 1962*i*. Range of *Tchagra tchagra*. *Ostrich* **33**: (2) 74.
WINTERBOTTOM, J. M. 1962*j*. Systematic notes on birds of the Cape Province. XXI. *Ostrich* **33** (2): 74–75.
WINTERBOTTOM, J. M. 1962*k*. Breeding season of Long-tailed Sugarbird *Promerops cafer* (L.). *Ostrich* **33** (2): 77.
WINTERBOTTOM, J. M. 1962*l*. A preliminary list of the birds of the Bontebok National Park, Swellendam. *Koedoe* **5**: 183–188.
WINTERBOTTOM, J. M. 1962*m*. List of the birds of Swellendam District. *S. Afr. Avifauna Ser.* (5): 1–20.
WINTERBOTTOM, J. M. 1962*n*. Fluctuations on Karoo dam. *Bokmakierie* **14**: 5–6.
WINTERBOTTOM, J. M. 1962*o*. The south-western races of *Eremomela icteropygialis* (Lafresnaye). *Bull. Br. Orn. Club* **82**: 118–122.
WINTERBOTTOM, J. M. 1962*p*. List of the birds of Worcester District. *S. Afr. Avifauna Ser* (7): 1–19.
WINTERBOTTOM, J. M. 1963*a*. The South African subspecies of the Buffy Pipit, *Anthus vaalensis* Shelley. *Ann. S. Afr. Mus.* **46**: 341–352.
WINTERBOTTOM, J. M. 1963*b*. Comments on the ecology and breeding of Sandplovers *Charadrius* in southern Africa. *Revue Zool. Bot. afr.* **67**: 11–15.
WINTERBOTTOM, J. M. 1963*c*. Systematic notes on birds of the Cape Province. XXIII. *Nectarinia chalybea*. *Ostrich* **34**: 155–156.
WINTERBOTTOM, J. M. 1963*d*. Notes from Namaqualand and Bushmanland. *Ostrich* **34**: 156–159.
WINTERBOTTOM, J. M. 1963*e*. List of the birds of Clanwilliam District. *S. Afr. Avifauna Ser.* (12): 1–24.
WINTERBOTTOM, J. M. 1963*f*. Avian breeding seasons in southern Africa. *Proc. Int. orn. Congr.* **13** (2): 640–648.
WINTERBOTTOM, J. M. 1964*a*. Notes from De Rust, Oudtshoorn District. *Ostrich* **35**: 237.
WINTERBOTTOM, J. M. 1964*b*. List of the birds of Verkeerdevlei. *S. Afr. Avifauna Ser.* (19): 1–11.
WINTERBOTTOM, J. M. 1964*c*. The migrations and local movements of some South African birds. *Monographiae biol.* **14**: 233–243. (DAVIS, D. H. S., *ed. Ecological studies in southern Africa.*)
WINTERBOTTOM, J. M. 1964*d*. Note on the relative abundance of passerine and non-passerine birds in Africa south of the equator. *Am. Nat.* **98**: 45–47.
WINTERBOTTOM, J. M. 1965*a*. Faunal groups in the avifauna of southern Africa. *Revue Zool. Bot. afr.* **71**: 157–170.
WINTERBOTTOM, J. M. 1965*b*. American Purple Gallinule in South Africa. *Ostrich* **36**: 90.
WINTERBOTTOM, J. M. 1965*c*. A preliminary list of the birds of Hopetown District. *S. Afr. Avifauna Ser.* (27): 1–15.
WINTERBOTTOM, J. M. 1965*d*. List of the birds of Robertson District. *S. Afr. Avifauna Ser.* (29): 1–19.
WINTERBOTTOM, J. M. 1965*e*. Notes from Bushmanland. *Ostrich* **36**: 133–134.
WINTERBOTTOM, J. M. 1966*a*. A review of the southern subspecies of the Fawn-coloured Lark *Mirafra africanoides* Smith. *Oiseau* **35** (No. spec.): 163–174.
WINTERBOTTOM, J. M. 1966*b*. List of the birds of Vanrhynsdorp District. *S. Afr. Avifauna Ser.* (35): 1–18.
WINTERBOTTOM, J. M. 1966*c*. A list of the birds of the Riversdale District. *S. Afr. Avifauna Ser.* (37): 1–16.
WINTERBOTTOM, J. M. 1966*d*. Ecological distribution of birds in the indigenous vegetation of the south-west Cape. *Ostrich* **37**: 76–91.
WINTERBOTTOM, J. M. 1966*e*. The comparative ecology of the birds of some Karoo habitats in the Cape Province. *Ostrich* **37**: 109–127.
WINTERBOTTOM, J. M. 1966*f*. The birds of the Cape Town Public Gardens. *Ostrich* **37**: 130–134.
WINTERBOTTOM, J. M. 1966*g*. A list of the birds of the Ceres District. *S. Afr. Avifauna Ser.* (41): 1–15.
WINTERBOTTOM, J. M. 1966*h*. Notes on bird distribution in South West Africa. *Revue Zool. Bot. afr.* **73**: 309–316.
WINTERBOTTOM, J. M. 1966*i*. Yellow Wagtail at Muizenberg. *Ostrich* **37**: 137.
WINTERBOTTOM, J. M. & COURTENAY-LATIMER, M. 1961. A list of the birds of Little Namaqualand. *S. Afr. Avifauna Ser.* (1): 1–46.
WINTERBOTTOM, J. M. & LIVERSIDGE, R. 1954. The European Starling in the south west Cape. *Ostrich* **25**: 89–96.

WINTERBOTTOM, J. M. & MIDDLEMISS, E. H. J. 1960. Notes on the Cape Shoveller. *Bull. Br. Orn. Club* **80:** 154–162.

WINTERBOTTOM, J. M. & ROWAN, M. K. 1962. Effect of rainfall on breeding of birds in arid areas. *Ostrich* **33** (2): 77–78.

WINTERBOTTOM, J. M. & SKEAD, C. J. 1962. A preliminary classification of bird habitats in the Cape Province south of the Orange River. *S. Afr. Avifauna Ser.* (3): 1–8.

WOOLFENDEN, G. E. 1961. Postcranial osteology of the waterfowl. *Bull. Fla St. Mus. biol. Sci.* **6** (1): 1–129.

WYNNE, O. E. 1956. *Key-list of the Palaearctic and Oriental passerine birds.* Arbroath: Privately printed.

ZEUNER, F. E. 1959. *The Pleistocene period.* London: Hutchinson.

1. Rondevlei.
[*Photograph: M. G. Winterbottom*]

2. Rietvlei, Milnerton.
[*Photograph: M. G. Winterbottom*]

1. Macchia, near Somerset West. [*Photograph: W. P. Stanford*]

2. Arid Karoo, Brandvlei, Calvinia. [*Photograph: C. J. Skead*]

1. Riverine bush on Karoo, Traka River.

[*Photograph: M. G. Winterbottom*]

2. Strandveld of the West Coast, Melkbos.

[*Photograph: M. G. Winterbottom*]

1. Karroid Broken Veld, near Klaarstroom.

[*Photograph: M. G. Winterbottom*]

2. Western Mountain Karoo, near Sutherland.

[*Photograph: Botanical Research Institute*]

1. Orange River Broken Veld, between Prieska and Upington.
[*Photograph: Botanical Research Institute*]

2. Namaqua Broken Veld, Richtersveld.
[*Photograph: Dr. C. K. Brain*]

INSTRUCTIONS TO AUTHORS

Based on

CONFERENCE OF BIOLOGICAL EDITORS, COMMITTEE ON FORM AND STYLE. 1960.
Style manual for biological journals. Washington: American Institute of Biological Sciences.

MANUSCRIPT

To be typewritten, double spaced, with good margins, arranged in the following order: (1) Heading, consisting of informative but brief title, name(s) of author(s), address(es) of author(s), number of illustrations (plates, figures, enumerated maps and tables) in the article. (2) Contents. (3) The main text, divided into principal divisions with major headings; subheadings to be used sparingly and enumeration of headings to be avoided. (4) Summary. (5) Acknowledgements. (6) References, as below. (7) Key to lettering of figures. (8) Explanation to plates.

ILLUSTRATIONS

To be reducible to $4\frac{3}{4}$ in. × 7 in. ($7\frac{1}{2}$ in. including caption). A metric scale to appear with all photographs.

REFERENCES

Harvard system (name and year) to be used: author's name and year of publication given in text; full references at the end of the article, arranged alphabetically by names, chronologically within each name, with suffixes *a, b,* etc. to the year for more than one paper by the same author in that year.

For books give title in italics, edition, volume number, place of publication, publisher.

For journal articles give title of article, title of journal in italics (abbreviated according to the *World list of scientific periodicals.* 4th ed. London: Butterworths, 1963), series in parentheses, volume number, part number (only if independently paged) in parentheses, pagination.

Examples (note capitalization and punctuation)

BULLOUGH, W. S. 1960. *Practical invertebrate anatomy.* 2nd ed. London: MacMillan.

FISCHER, P.-H. 1948. Données sur la résistance et de le vitalité des mollusques. *J. Conch., Paris* **88**: 100–140.

FISCHER, P.-H., DUVAL, M. & RAFFY, A. 1933. Etudes sur les échanges respiratoires des littorines. *Archs Zool. exp. gén.* **74**: 627–634.

KOHN, A. J. 1960*a*. Ecological notes on *Conus* (Mollusca: Gastropoda) in the Trincomalee region of Ceylon. *Ann. Mag. nat. Hist.* (13) **2**: 309–320.

KOHN, A. J. 1960*b*. Spawning behaviour, egg masses and larval development in *Conus* from the Indian Ocean. *Bull. Bingham oceanogr. Coll.* **17** (4): 1–51.

THIELE, J. 1910. Mollusca: B. Polyphacophora, Gastropoda marina, Bivalvia. *In* Schultze, L. *Zoologische und anthropologische Ergebnisse einer Forschungsreise im westlichen und zentralen Süd-Afrika.* **4**: 269–270. Jena: Fischer. *Denkschr. med.-naturw. Ges. Jena* **16**: 269–270.

ZOOLOGICAL NOMENCLATURE

To be governed by the rulings of the latest *International code of zoological nomenclature* issued by the International Trust for Zoological Nomenclature (particularly articles 22 and 51). The Harvard system of reference to be used in the synonymy lists, with the full references incorporated in the list at the end of the article, and not given in contracted form in the synonymy list.

Example

Scalaria coronata Lamarck, 1816: pl. 451, figs. 5 *a, b*; Liste: 11. Turton, 1932: 80