

Notes on birds of the north-eastern Namib Desert Park and adjoining farms

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1 INTRODUCTION

A geological survey of the area shown in Figure 1 was carried out between February and June 1973. The area comprises 560 square kilometres and was traversed on 43 lines, each 1 kilometre apart and at right angles to the southeast boundary. The area is some 14 kilometres wide and was traversed for about 7 kilometres south-eastwards from the Swakop River and the return trip on the same day was made on the adjoining line. The remaining halves of the lines were completed by traversing from and back to the southeast boundary. Birds were counted on the traverses and groups mostly of four adjacent traverses were synthesised into transects. Dates on which pairs of traverses were made are shown on Figures 2-5.

Observations of the bird population in the Swakop River were made in the vicinity of camps near the mouth of the Onanis River between February and April, and on the farm Horebis Süd between April and June.

2 PURPOSE OF THE STUDY

It was hoped to determine the species composition and population density of the avifauna in relation to the environment, particularly with respect to the late summer rains. Observations made by the writer are compared with those of Willoughby and Cade (1967) in an adjoining area of the Namib Park (Figure 1).

3 THE ENVIRONMENT

The area is bounded on the northwest by the Swakop River, an elongate oasis at an elevation of some 620 metres above sea level. The ground to the south-east is largely rocky and culminates in the Horebisberge which constitute the spine of the area and reach an altitude of about 1 200 metres. There is some flattish, sandy ground southeast of the Horebisberge. The Onanis, Achas and Rooikuseb Rivers have sandy river beds with trees and cross the area to join the Swakop River. All these rivers have dry beds for most of the year, carrying floods at the peak of good rainy seasons and rapidly drying up thereafter except for isolated longer-lasting pools.

The area can be considered an extension of that classified as Inner Namib by Willoughby and Cade (1967) and has a partly continental climate with a considerable range of temperature. The rainfall is about 100 mm per annum and comes mostly as thunder showers in the latter half of the summer. In 1973, 106 mm of rain was recorded by Mr. H. W. Strubing whose house is near the northern campsite (Figure 1) and it fell mostly between 20th March and 5th April. In the Namib Park semi-permanent water is found in water holes and seeps in the Swakop River and some of its tributaries (S Figure 2), whereas on the farmland there are also boreholes with accompanying reservoirs (P Figure 2).

Broadly there are four different types of habitat:

CONTENTS

1 Introduction	45
2 Purpose of study	45
3 The environment	45
4 Avifaunal composition	46
5 Discussion	46
6 Acknowledgments	46
7 References	46

- a) The riverine forest in the Swakop River, and to a much lesser extent in its tributaries, which accommodates many birds characteristics of more inland regions.
- b) The generally rocky, hilly terrain rising from the Swakop River.
- c) The Horebisberge and their southwest extension which rise up to some 600 metres above the bed of the Swakop River.
- d) The sandy and calcrete-covered flats southeast of the Horebisberge.

4 AVIFAUNAL COMPOSITION

Ninety-seven different species were recorded and in Table 1 the more interesting of these, as suggested by Dr. R. A. C. Jensen, are listed and their distributions are related to habitats and seasons. The movements of the four most numerous species are clearly related to rainfall and are discussed in some detail. The distribution of these species is shown in Figures 2–5 in which populations are shown as the number of observations made over individual distances (trancepts) of 2 kilometres. These numbers are the averages of counts from four adjacent traverses each 1 kilometre apart.

4.1 Laughing Dove (*Streptopelia senegalensis*)

The distribution of Laughing Doves is shown in Figure 2 and it is noteworthy that this dove was recorded up to a few kilometres from the nearest water whereas the Cape Turtle Dove (*Streptopelia capicola*) and the Namaqua Dove (*Oena capensis*) were much scarcer and always near water.

4.2 Long-billed Lark (*Certhilauda curvirostris*)

The distribution of Long-billed Larks is shown on Figure 3 and it is evident that they occur throughout the area. There seems to have been a concentration in breeding time in an area of more favourable rainfall west of the Horebisberge. However this observation may be due to the fact that the larks stopped calling loudly towards the end of May and this may account for the lower population recorded at that time east of the Horebisberge. The overall lower population in the northeast is probably due to the poorer rainfall in that area.

4.3 Dusky Sunbird (*Nectarinia fusca*)

There was a considerable influx of Dusky Sunbirds after the rains (Figure 4) and also a movement of large numbers away from the Swakop River into the hinterland. The maximum population was recorded in May and early June southeast of the Horebisberge and this may be due to the large population in this area of *Aloe dichotoma* which flowers at that time.

4.4 Lark-like Bunting (*Emberiza impetuani*)

There was a considerable influx after the rains (Figure 5) and the maximum population was in the rocky areas northwest and southeast of the Horebisberge. The first young were seen flying on June 8th some ten weeks after the rains.

5 DISCUSSION

Willoughby and Cade (1967) carried out an investigation of the drinking habits of birds in the Central Namib Desert of South West Africa in the period from 1964–1966, and the Tinkas area where they worked adjoins the southwest part of the writer's area (Figure 1). These authors observed twenty-eight species not seen by the writer whereas twenty-five recordings made by the writer do not appear on Willoughby and Cade's list. This is not particularly surprising in view of the rapid increase in average annual rainfall from West to East in our joint study areas. Some of the species from our respective lists however merit some mention. These include a few species (Table 1) recorded in the Namib Park which do not appear on Willoughby and Cade's list. Several waterbirds fall in this category, including the migrant Spotted Crake and Little Stint. Another notable migrant was the European Golden Oriole. A nomadic flock of seven Temminck's Coursers was seen after the rains just outside the Park fence on Wilsonfontein. "Resident" species not recorded in the Park by Willoughby and Cade (1967) include among the more interesting and less expected: Rüppell's Parrot, Pearl-spotted Owllet, Red-billed Hoopoe, Bearded Woodpecker, Three-streaked Tchagra and Plum-coloured Starling. All these species were recorded from the Swakop River only. The parrot is known to be a wanderer, although observed throughout the study period, but the other records probably represent individuals penetrating to the limits of their species' ranges.

Of some interest was the apparent confinement of the Lappet-faced Vulture to the Namib Desert Park; it was never seen outside the Park boundary. Other birds of prey were rather scarce; with the exception of the Rock Kestrel, sightings were mostly of one or a pair of each species (Table 1).

Among birds recorded by Willoughby and Cade (1967) but not by the writer, may be mentioned the Black Kite *Milvus migrans* and two coursers. These authors also recorded (questionably) the migrant European Swift *Apus apus*, a species which is difficult to distinguish from the local Bradfield's Swift. Unlike the latter, the Alpine Swift was noted to disappear between April and September (see Table 1). Among other migrant species recorded by Willoughby and Cade but not seen by the writer are European Swallow *Hirunda rustica*, Greater Striped Swallow *H. cucullata*, Spotted Flycatcher *Muscicapa striata* and Lesser Grey Shrike *Lanius minor*.

6 ACKNOWLEDGEMENTS

I would like to thank Dr E. Joubert for encouragement and Dr R. A. C. Jensen for very substantial help in compiling this report.

7 REFERENCES

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1970 *Roberts Birds of South Africa*. Central News Agency, Johannesburg.
- WILLOUGHBY, E. J. and CADE, T. J.
1967 Drinking habits of birds in the Central Namib Desert of South West Africa. *Sci. Paps. Namib Res. Sta.* No. 31.

Table 1. Distribution of certain bird species related to habitats and seasons.

Species	In Namib Park	Outside Namib Park	In Swakop River	In Hilly Terrain	In Mountains	On Sandy and Calcrete Flats	Seen Before Rains	Seen After Rains	Comments
Secretary Bird <i>Sagittarius serpentarius</i>		x	x					x	One seen, Swakop River
Lappet-faced Vulture <i>Torgos tracheliotus</i>	x			x			x	x	Only seen inside Park
Lanner Falcon <i>Falco biarmicus</i>		x		x			x	x	One pair in vicinity of Achas River
Rock Kestrel <i>Falco tinnuculus</i>	x	x	x	x			x	x	Several pairs recorded
Black Eagle <i>Aquila verreauxi</i>	x	x		x	x		x	x	One pair ranged along Horebisberge
African Hawk-Eagle <i>Hierraëtus fasciatus</i>		x	x					x	One pair seen twice in Swakop River, Horebis-Süd
Martial Eagle <i>Polemaëtus bellicosus</i>		x	x				x		One seen, Swakop River on Horebis-Süd
Black-breasted Snake-Eagle <i>Circaëtus pectoralis</i>		x	x				x		One seen, as above
Jackal Buzzard <i>Buteo rufofuscus (augur)</i>	x	x		x			x	x	Three seen, Onanis and Rooikuisseb Rivers
Steppe Buzzard <i>Buteo buteo</i>		x	x				x		Two seen
Spotted Crake <i>Porzana porzana</i>	x		x				x		Three seen, at pool in Swakop near Onanis River
Kori Bustard <i>Otis kori</i>	x			x				x	One seen
Little Stint <i>Calidris minuta</i>	x		x					x	A couple in Swakop River after rains
Temminck's Courser <i>Cursorius temmincki</i>	x					x		x	Seven seen in party
Laughing Dove <i>Streptopelia senegalensis</i>	x	x	x	x	x		x	x	See text
Rüppell's Parrot <i>Poicephalus rüppellii</i>	x	x	x				x	x	Several pairs, riverine forest, throughout study
Rosy-faced Lovebird <i>Agapornis roseicollis</i>	x	x		x			x	x	Some large colonies in river gorges
African Cuckoo <i>Cuculus canorus gularis</i>		x	x				x		One seen, November 1973
Pearl-Spotted Owllet <i>Glaucidium perlatum</i>	x	x	x				x	x	A few pairs in Swakop River
Bradfield's Swift <i>Apus bradfieldi</i>	x	x	x	x	x		x	x	Recorded throughout study period
Alpine Swift <i>Apus melba</i>	x	x	x	x	x		x	x	Not seen between 20.4.73 and 1.9.73
White-backed Mousebird <i>Colius colius</i>	x	x	x	x			x	x	Several flocks in dry river beds
Red-faced Mousebird <i>Colius indicus</i>	x	x	x					x	Along Swakop River after rains only
Purple Roller <i>Coracias naevia</i>		x	x				x		One seen on Horebis-Süd, Nov. 1973
Red-billed Hoopoe <i>Phoeniculus purpureus</i>	x		x				x	x	One pair in Swakop River
Cardinal Woodpecker <i>Dendropicos fuscescens</i>	x	x	x				x	x	Two pairs
Bearded Woodpecker <i>Thripias namaquus</i>	x		x				x		One probable pair, Onanis R. mouth
Long-billed Lark <i>Certhilauda curvirostris</i>	x	x		x	x		x	x	See text

Table 1 (continued). Distribution of certain bird species to habitats and seasons.

Species	In Namib Park	Outside Namib Park	In Swakop River	In Hilly Terrain	In Mountains	On Sandy and Calcrete Flats	Seen Before Rains	Seen After Rains	Comments
Grey-backed Finch-Lark <i>Eremopterix verticalis</i>	x	x				x		x	Several hundred nested after rains
Stark's Lark <i>Calandrella starki</i>	x	x				x	x	x	Several seen, no noticeable influx after rains
Golden Oriole <i>Oriolus oriolus</i>	x				x		x		Several immatures seen in Swakop River, April 1973
Crimson-breasted Shrike <i>Laniarius atrococcineus</i>	x				x		x		One seen on Horebis-Süd
Three-streaked Tchagra <i>Tchagra australis</i>	x	x	x				x	x	Two pairs
Plum-coloured Starling <i>Cinnyricinclus leucogaster</i>	x	x	x				x	x	Quite common in Swakop River
Dusky Sunbird <i>Nectarinia fusca</i>	x	x	x	x	x	x	x	x	See text
Lark-like Bunting <i>Emberiza impetuani</i>		x	x		x	x	x	x	See text

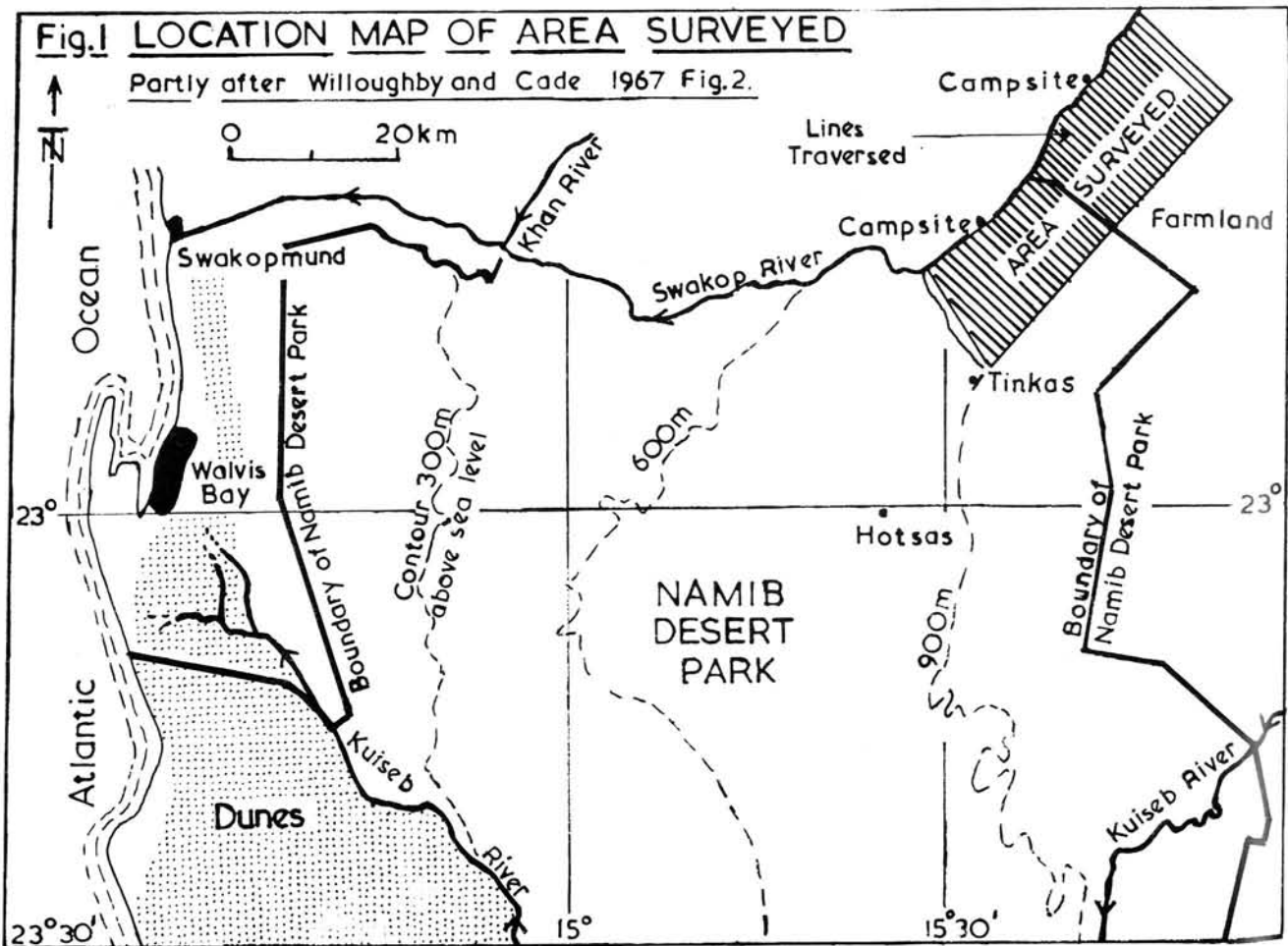


Fig.2 Population distribution of Laughing Doves

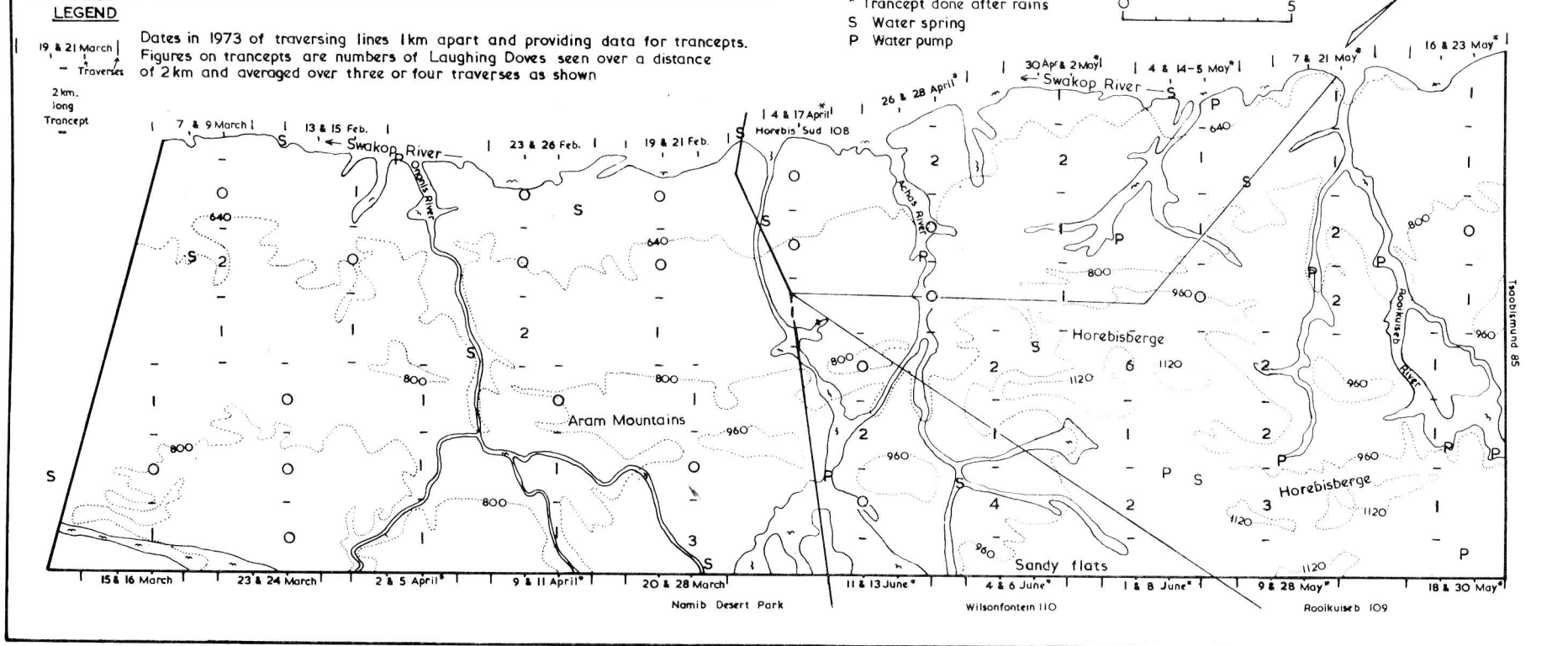


Fig.3 Population distribution of Long-billed Larks

LEGEND

1 19 & 21 Feb. | Dates in 1973 of traversing lines 1km apart and providing data for transects. Figures on transept are numbers of Long-billed Larks heard or seen over a distance of 2 km and averaged over three or four traverses as shown.

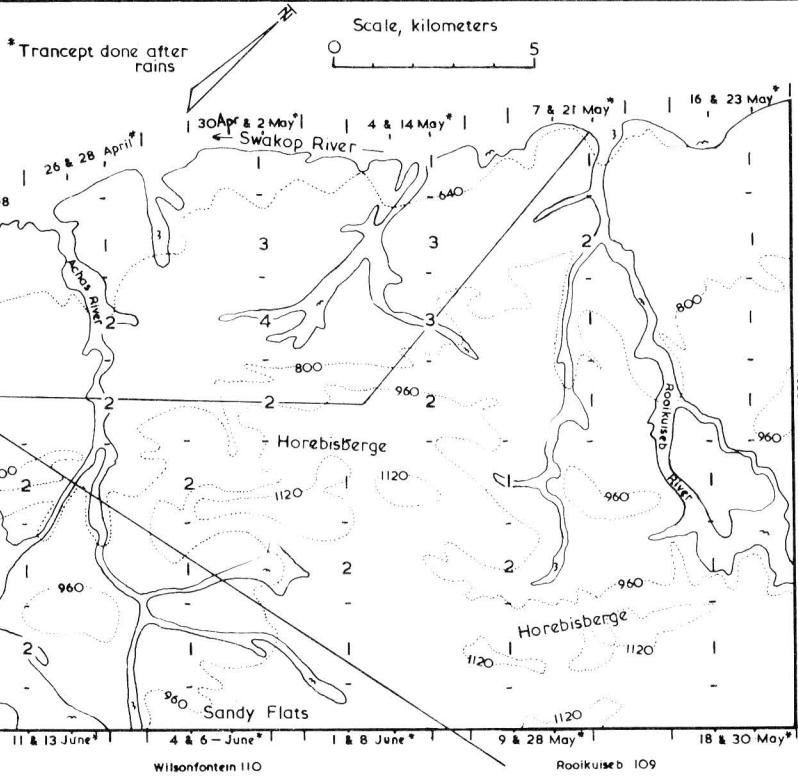


Fig.4 Population distribution
of Dusky Sunbirds

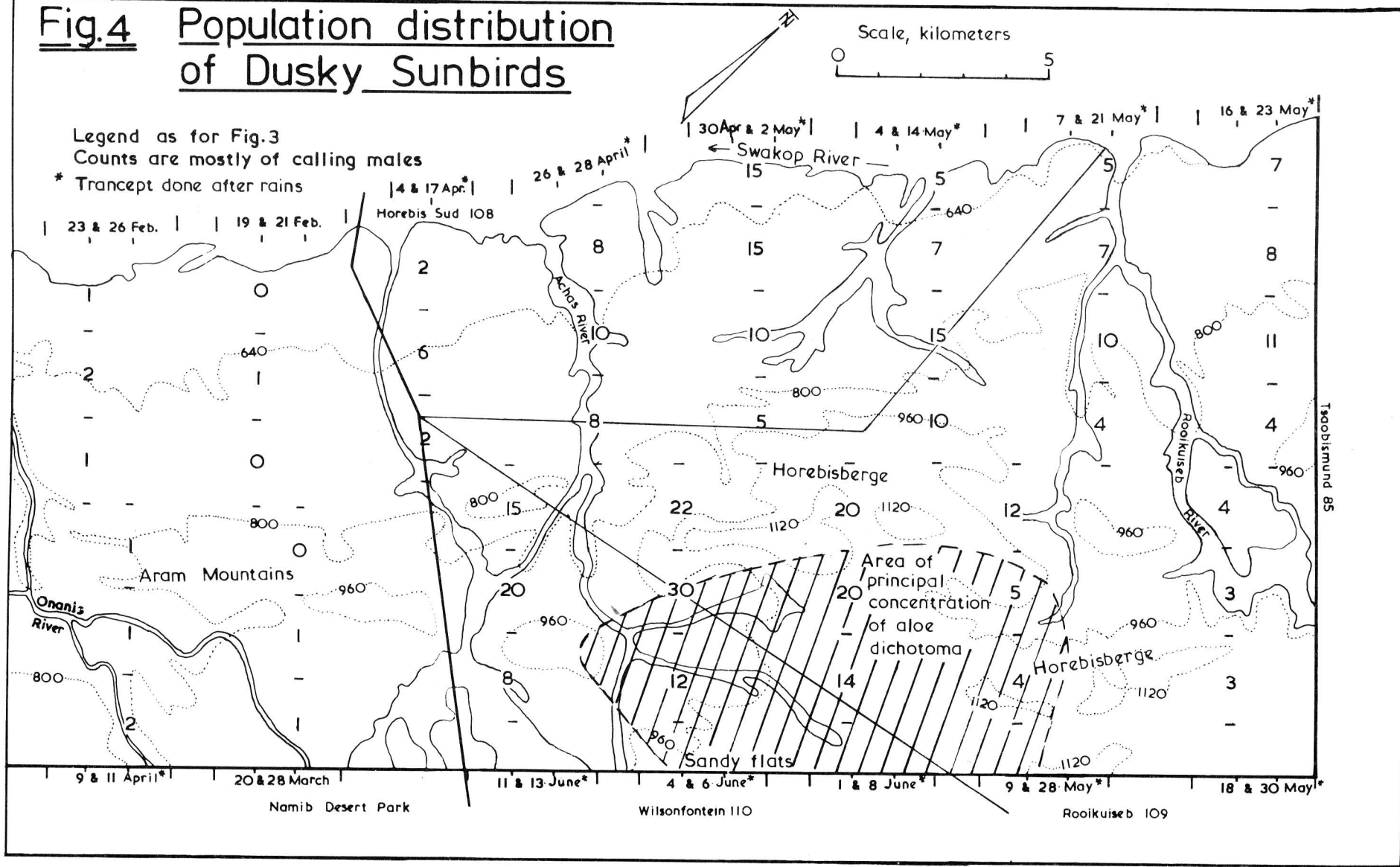


Fig.5 Population distribution of Lark-like Buntings

