

OBSERVATIONS ON THE BIRDLIFE IN THE KALAHARI GEMSBOK NATIONAL PARK

by

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Introduction:

The Avifauna of the Kalahari Gemsbok National Park, situated in the northern part of the Cape Province, has been the subject of several papers (De Villiers, 1958; Prozesky and Haagner, 1962) and an unpublished report by J. M. Winterbottom.

These publications and the report together mention a total of 170 different species of birds recorded from the Reserve.

In none of these papers an attempt has been made to obtain actual figures of the number of birds of the different species seen by the authors.

In July 1964 and July 1967 we spent eight days (2-9 July, 1964; 8-15 July, 1967) in the Reserve, concentrating on the birds. Every time we made a trip through the Reserve we not only identified all birds encountered but also recorded the number seen. It is fully realised that such counts have only a limited value as they can only give an indication and cannot be accurate. They make it possible, however, to compare the different species and the different areas covered.

They also enable us to compare the 1964 visit which was during a period of drought with the 1967 visit, when satisfactory rains had fallen previously.

Both visits were in the winter and consequently no migratory species were encountered, but nevertheless a total of 90 different species were seen.

RESULTS OF THE VISITS

Largest number of birds seen of each species during any one of the trips through the Reserve.

As has been mentioned before the number of birds belonging to each species seen during trips undertaken in the Reserve were always recorded and tabulated.

In Table I the largest number of birds belonging to a species ever seen on a trip has been tabulated.

Where over 100 birds were seen the species was considered to be abundant (A). Where more than 30 but less than 100 were seen the species was taken to be common (C).

TABLE I.

The largest number of birds of a species seen during any one of the trips through the Reserve and the different species recorded from the Nossob and the Auob Riverbeds.

Species	Largest number seen on any one trip		Seen in			
	2-9 July	9-16 July	Nossob		Auob	
	1964	1967	1964	1967	1964	1967
Ostrich <i>Struthio camelus</i>	21	C	X	X	X	X
Black-headed Heron <i>Ardea melanocephala</i>	0	2	—	X	—	X
Cattle Egret <i>Bubulcus ibis</i>	0	1	—	—	—	X
Secretary Bird <i>Sagittarius serpentarius</i>	1	5	—	X	X	X
White-backed Vulture <i>Gyps africanus</i>	2	22	X	X	X	X
Lappet-faced Vulture <i>Torgos tracheliotus</i>	2	2	X	X	X	—
White-headed Vulture <i>Trigonoceps occipitalis</i>	1	1	—	X	X	—
Black-shouldered Kite <i>Elanus caeruleus</i>	0	7	—	X	—	X
Greater Kestrel <i>Falco rupicoloides</i>	1	9	—	X	X	X
Red-necked Falcon <i>F. chicquera</i>	1	3	X	X	X	X
Rock Kestrel <i>F. tinnunculus</i>	4	4	X	X	X	X
Lanner Falcon <i>F. biarmicus</i>	0	3	—	X	—	X
Chanting Goshawk <i>Melierax musicus</i>	8	13	X	X	X	X
Gabar Goshawk <i>Micronisus gabar</i>	3	4	X	X	X	X
Pygmy Falcon <i>Poliohierax semitorquatus</i>	3	7	X	X	X	X
Bateleur <i>Teratopius ecaudatus</i>	2	5	X	X	X	X
Martial Eagle <i>Polemaëtus bellicosus</i>	1	3	X	X	X	X
Tawny Eagle <i>Aquila rapax</i>	5	4	X	X	X	X
Wahlberg's Eagle <i>A. wahlbergi</i>	1	1	X	X	—	—
Black Harrier <i>Circus maurus</i>	0	2	—	—	—	X
Black Korhaan <i>Afrotis afra</i>	2	9	X	—	X	X
Karoo Korhaan <i>Eupodis vigorsii</i>	1	0	—	—	X	—
Kori Bustard <i>Ardeotis kori</i>	8	6	X	X	X	X
Crowner Plover <i>Stephanibyx coronatus</i>	11	C	X	X	X	X
Cape Dikkop <i>Burhinus capensis</i>	0	1	—	—	—	X
Double-banded Courser <i>Rhinoptilus africanus</i>	2	4	—	X	X	—
Burchell's Courser <i>Cursorius rufus</i>	2	0	X	—	—	—
Namaqua Sandgrouse <i>Pterocles namaqua</i>	A	C	X	—	X	X
Spotted Sandgrouse <i>P. burchelli</i>	?	C	?	—	?	X
Speckled Pigeon <i>Columba guinea</i>	1	0	—	—	X	—
Cape Turtle Dove <i>Streptopelia capicola</i>	A	C	X	X	X	X
Laughing Dove <i>Stigmatopelia segenalensis</i>	10	2	—	X	X	X
Namaqua Dove <i>Oena capensis</i>	2	A	—	a few	2 ♂♂	C
Giant Eagle Owl <i>Bubo lacteus</i>	3	2	X	X	X	X
Cape Spotted Eagle Owl <i>B. africanus</i>	2	2	X	—	X	X
Scops Owl <i>Otus scops</i>	0	1	—	—	—	X
White-faced Owlet <i>O. leucotus</i>	0	2	—	—	—	X

Species	Largest number seen on any one trip		Seen in			
	2-9 July 1964	9-16 July 1967	Nossob		Auob	
			1964	1967	1964	1967
S.A. Nightjar <i>Caprimulgus pectoralis</i>	0	1	—	X	—	—
Swallow-tailed Bee-eater <i>Dicrocercus hirundin-</i> <i>neus</i>	0	6	—	X	—	X
Lilac-breasted Roller <i>Coracias caudata</i>	4	14	X	X	X	X
Mozambique Roller <i>C. neavis</i>	0	1	—	—	—	X
African Hoopoe <i>Upupa africana</i>	1	3	—	X	X	X
Scimitar-billed Hoopoe <i>Rhinopomastus cyano-</i> <i>melas</i>	0	2	—	X	—	—
Grey Hornbill <i>Lophoceros nasutus</i>	1	13	X	X	—	X
Yellow-billed Hornbill <i>L. flavirostris</i>	7	6	X	X	X	X
Pied Barbet <i>Tricholaema leucomelas</i>	1	1	X	—	—	—
Sabota Lark <i>Mirafra sabota</i>	2	2	X	—	X	X
Spike-heeled Lark <i>Certhilauda albofasciata</i> ..	5	5	X	X	X	—
Long-billed Lark <i>C. curvirostris</i>	1	0	—	—	X	—
Fawn-coloured Lark <i>Mirafra africanoides</i>	5	6	X	X	X	X
Grey-backed Finch Lark <i>Eremopterix verticalis</i>	2	A	—	few	—	C
Pink-billed Lark <i>Spizocorys conirostris</i>	—	C	—	—	—	—
Fork-tailed Drongo <i>Dicrurus adsimilis</i>	15	C	X	X	X	X
Black Crow <i>Corvus capensis</i>	4	C	—	X	X	X
Grey Tit <i>Parus afer</i>	1	1	—	X	X	—
Layard's Titbabbler <i>Parisoma layardi</i>	2	10	—	X	X	X
Red-eyed Bulbul <i>Pycnonotus nigricans</i>	0	2	—	X	—	X
Kalahari Scrub Robin <i>Erythropygia paena</i>	7	5	—	X	X	X
Chat Flycatcher <i>Bradornis infuscatus</i>	23	20	X	X	X	X
Ant-eating Chat <i>Myrmecocichla formicivora</i>	24	19	X	X	X	X
Capped Wheatear <i>Oenanthe pileata</i>	0	2	—	—	—	X
Mountain Chat <i>O. monticola</i>	0	3	—	—	—	X
Familiar Chat <i>Cercomela familiaris</i>	17	10	X	X	X	X
Desert Cisticola <i>Cisticola aridula</i>	0	6	—	X	—	X
Crombek <i>Sylvietta rufescens</i>	0	1	—	X	—	—
Rufous-eared Warbler <i>Malcorus pectoralis</i>	0	2	—	X	—	X
Yellow-billed Bush Warbler <i>Eremomela ictero-</i> <i>pygialis</i>	6	1	X	—	X	X
Black-chested Prinia <i>Prinia flavicans</i>	7	4	X	X	X	X
Marico Flycatcher <i>Bradornis mariquensis</i>	C	C	X	X	X	X
Pirit Flycatcher <i>Batis pirit</i>	1	1	—	—	—	X
Cape Wagtail <i>Motacilla capensis</i>	1	0	—	—	X	—
Fiscal Shrike <i>Lanius collaris</i>	16	17*	X	X	X	X
Crimson-breasted Shrike <i>Laniarius atrocineus</i>	10	7	X	X	X	X
Brubru Shrike <i>Nilaus afer</i>	0	2	—	X	—	X
Bokmakierie <i>Telephorus zeylonus</i>	3	6	—	X	X	X

Species	Largest number seen on any one trip		Seen in			
	2-9 July 1964	9-16 July 1967	Nossob		Auob	
			1964	1967	1964	1967
Cape Glossy Starling <i>Lamprocolius nitens</i>	A	25	X	X	X	X
Burchell's Glossy Starling <i>Lamprotornis australis</i>	0	C	—	X	—	—
Wattled Starling <i>Creatophora cinerea</i>	0	1	—	—	—	X
Sociable Weaver <i>Philetairus socius</i>	A	A	X	X	X	X
Scaly-feathered Finch <i>Sporopipes squamifrons</i>	C	A	X	X	X	X
White-browed Sparrow Weaver <i>Plocepasser mahali</i>	6	16	X	X	X	X
Masked Weaver <i>Ploceus velatus</i>	0	C	—	X	—	X
Cape Sparrow <i>Passer melanurus</i>	A	A	sev.	few	C	C
Grey-headed Sparrow <i>Passer diffusus</i>	17	C	—	X	X	X
Red-headed Finch <i>Amadina erythrocephala</i> ...	0	A	—	X	—	X
Yellow Canary <i>Crithraga flaviventris</i>	20	28	X	X	X	X
Shaft-tailed Widow-Bird <i>Vidua regia</i>	0	4	—	X	—	X
Violet-eared Waxbill <i>Granatina granatina</i>	0	9	—	X	—	—

The European Sparrow *Passer domesticus* and the Barn Owl *Tyto alba* were recorded from Twee Rivieren Camp.

From Table I it can be seen that during our 1967 trip 18 species of birds were found to be common to abundant. They were: Ostrich, Crowned Plover, Namaqua Sandgrouse, Spotted Sandgrouse, Cape Turtle Dove, Namaqua Dove, Grey-backed Finch Lark, Pink-billed Lark, Fork-tailed Drongo, Black Crow, Marico Flycatcher, Burchell's Glossy Starling, Sociable Weaver, Scaly-feathered Finch, Masked Weaver, Cape Sparrow, Grey-headed Sparrow, Red-headed Finch.

During our visit in 1964 we only recorded seven species as common or abundant. These were: Namaqua Sandgrouse, Cape Turtle Dove, Marico Flycatcher, Cape Glossy Starling, Sociable Weaver, Scaly-feathered Finch and the Cape Sparrow.

Six of these seven species were common during both our visit. Those only common or abundant in 1967 were: Ostrich, Crowned Plover, Spotted Sandgrouse, Namaqua Dove, Grey-backed Finch Lark, Pink-billed Lark, Fork-tailed Drongo, Black Crow, Burchell's Glossy Starling, Masked Weaver, Grey-headed Sparrow and Red-headed Finch. This is a total of twelve species.

It is, however, most likely that we overlooked the Spotted Sandgrouse in 1964 and confused it with the Namaqua Sandgrouse. In that year the Dune Road between Kamqua on the Auob and Kameelsleep on the Nossob was not open and it was, therefore, not covered by us. It was along this Dune Road, in July 1967, that we saw the Pink-billed Larks in a group of 50.

Furthermore, we never travelled as far north as Kameelsleep in July 1964 and it was to the north of that, where we saw the Burchell's Glossy Starlings in 1967.

The status of these three species in 1964 is, therefore, uncertain and it is safer to say that there were nine more "common" and "abundant" species in July 1967 than in 1964.

It should be remembered that good rains had fallen in 1967, while 1964 was a drought year and this may account for the larger number of "common" and "abundant" species in 1967.

The number of trips on which the different species were seen:

In Table 2 the different species have been separated into different groups based on percentages of all trips they were seen on.

TABLE 2.

Percentage of trips undertaken on which the different species were seen during the two visits to the Reserve.

(Species in italics and underlined are in the same category for 1964 and 1967)

Percentage of all trips	Species	
	July 1964	July 1967
100%	Familiar Chat, Fiscal Shrike, Kori Bustard, Marico Flycatcher, Cape Turtle Dove, Sociable Weaver, <u>Yellow Canary</u> .	Ant-eating Chat, Chat Flycatcher, Scaly-feathered Finch, Chanting Goshawk, Cape Sparrow.
70-99%	Ant-eating Chat, Chanting Goshawk, Scaly-feathered Finch, Chat Flycatcher, Cape Sparrow, <u>Cape Glossy Starling</u> , Namaqua Sandgrouse, <u>Crowned Plover</u> , <u>Fork-tailed Drongo</u> , Tawny Eagle, Giant Eagle Owl, Spotted Eagle Owl, <u>Layard's Titbabbler</u> , <u>Kalahari Scrub Robin</u> , Fawn-coloured Lark, <u>Ostrich</u> .	Familiar Chat, Sociable Weaver, <u>Cape Glossy Starling</u> , Marico Flycatcher, Greater Kestrel, Cape Turtle Dove, Fiscal Shrike, Black Crow, <u>Ostrich</u> , <u>Fork-tailed Drongo</u> , Kori Bustard, Martial Eagle, <u>Crowned Plover</u> , Rock Kestrel, Gabar Goshawk, <u>Layard's Titbabbler</u> , <u>Kalahari Scrub Robin</u> , Lilac-breasted Roller, Secretary Bird, Yellow Canary.
50-69%	<u>Black-chested Prinia</u> , Gabar Goshawk, Martial Eagle, <u>Bateleur</u> , <u>Pygmy Falcon</u> , Rock Kestrel, <u>Crimson-breasted Shrike</u> , Sabota Lark, <u>Yellow-billed Hornbill</u> .	White-backed Vulture, <u>Bateleur</u> , Tawny Eagle, Black-shouldered Kite, <u>Pygmy Falcon</u> , <u>Black-chested Prinia</u> , <u>Crimson-breasted Shrike</u> , Fawn-coloured Lark, <u>Yellow-billed Hornbill</u> , Namaqua Dove, African Hoopoe, White-browed Sparrow Weaver, Grey-headed Sparrow, Red-headed Finch.

Percentage of all trips	Species	
	July 1964	July 1967
25-49%	Black Crow, Grey-headed Sparrow, Black Korhaan, White-backed Vulture, <u>Red-necked Falcon</u> , Lilac-breasted Roller, White-browed Sparrow Weaver, Double-banded Courser, Burchell's Courser, <u>Spike-heeled Lark</u> , Grey Tit, Yellow-bellied Bush Warbler.	Lanner Falcon, <u>Red-necked Falcon</u> , Black Vulture, Giant Eagle Owl, Cape Sparrow, Bokmakierie, Brubru Shrike, Burchell's Glossy Starling, Black Korhaan, Swallow-tailed Bee-eater, Desert Cisticola, Fufous-eared Warbler, <u>Spike-heeled Lark</u> , Capped Weatear, Masked Weaver.
Less than 24%	Greater Kestrel, <u>Wahlberg's Eagle</u> , <u>White-headed Vulture</u> , Namaqua Dove, <u>Laughing Dove</u> , Speckled Pigeon, <u>Pied Barbet</u> , <u>Grey Hornbill</u> , African Hoopoe, <u>Rock Martin</u> , Long-billed Lark, Grey-backed Finch Lark, <u>Pirit Flycatcher</u> , Secretary Bird, Cape Wagtail, Karroo Korhaan.	<u>Wahlberg's Eagle</u> , Black Harrier, <u>White-headed Vulture</u> , Namaqua Sandgrouse, Spotted Sandgrouse, Mozambique Roller, Grey-backed Finch Lark, Violet-eared Waxbill, Red-eyed Bclbul, Double-banded Courser, <u>Grey Hornbill</u> , Sabota Lark, <u>Laughing Dove</u> , Mountain Chat, <u>Pirit Flycatcher</u> , Black-headed Heron, S.A. Nightjar, Shaft-tailed Widowbird, Scimitar-billed Hoopoe, Spotted Eagle Owl, White-faced Owlet, Scops Owl, Grey Tit, Crombek, Pink-billed Lark, Wattled Starling, Cape Dik-kop, Cattle Egret, Yellow-bellied Bush Warbler, Rock Martin, <u>Pied Barbet</u> .

From Table 2 it is clear that in 1964 there were seven species which were seen at every occasion. In 1967 the number was limited to five and these were all different from the 1964 ones.

This is a rather unexpected result but may be partly caused by the fact that in 1964 the Dune Road, crossing and giving access to a completely different habitat the dry river-bed habitat was not open, while it was in 1967.

Our bird-counts in 1964, therefore, only covered the birds in the dry river-beds, while in 1967 it included some counts in the dune habitat. Common river-birds which did not frequent the dune habitat would, therefore, in 1964 be recorded as present on every occasion but in 1967 they would not fall in the category. If we combine the two first categories, that is 70-99% and 100%, we find that in 1964 there were 23 and in 1967 there

were 25 species of birds which fall in the 70-100% category. Of these 18 were the same for both years.

In Table 3 the species which were considered to be common or abundant by the fact that more than 30 had been seen on any one of the trips, have been tabulated together with those species which fall in the "seen during 70-100% of all trips" category.

TABLE 3.

A comparison of Common or abundant species and species seen in over 70% of the trips during both visits.

(The species in italics and underlined are those appearing both in the over 30 and 70-100% columns)

July 1964		July 1967	
more than 30	70-100%	more than 30	70-100%
<u>Namaqua Sandgrouse</u>	<u>Namaqua Sandgrouse</u>	<u>Namaqua Sandgrouse</u>	Ant-eating Chat
<u>Cape Turtle Dove</u>	<u>Cape Turtle Dove</u>	<u>Spotted Sandgrouse</u>	Chat Flycatcher
<u>Marico Flycatcher</u>	<u>Marico Flycatcher</u>	<u>Cape Turtle Dove</u>	<u>Cape Turtle Dove</u>
<u>Cape Glossy Starling</u>	<u>Cape Glossy Starling</u>	<u>Namaqua Dove</u>	Familiar Chat
<u>Sociable Weaver</u>	<u>Sociable Weaver</u>	<u>Ostrich</u>	<u>Ostrich</u>
<u>Scaly-feathered Finch</u>	<u>Scaly-feathered Finch</u>	Grey-backed Finch	Chanting Goshawk
<u>Cape Sparrow</u>	<u>Cape Sparrow</u>	Lark	Greater Kestrel
	Familiar Chat	Pink-billed Lark	<u>Fork-tailed Drongo</u>
	Fiscal Shrike	Fork-tailed Drongo	<u>Black Crow</u>
	Kori Bustard	<u>Black Crow</u>	<u>Marico Flycatcher</u>
	Yellow Canary	<u>Marico Flycatcher</u>	<u>Cape Glossy Starling</u>
	Ant-eating Chat	Burchell's Glossy Starling	<u>Sociable Weaver</u>
	Chat Flycatcher	<u>Sociable Weaver</u>	<u>Scaly-feathered Finch</u>
	Crowned Plover	<u>Scaly-feathered Finch</u>	Kori Bustard
	Fork-tailed Drongo	<u>Masked Weaver</u>	<u>Cape Sparrow</u>
	Tawny Eagle	<u>Cape Sparrow</u>	Martial Eagle
	Giant Eagle Owl	Grey-headed Sparrow	Rock Kestrel
	Spotted Eagle Owl	Red-headed Finch	Crowned Plover
	Layard's Titbabbler	Crowned Plover	Gabar Goshawk
	Kalahari Scrub Robin		Layard's Titbabbler
	Fawn-coloured Lark		Kalahari Scrub Robin
	Ostrich		Lilac-breasted Roller
	Chanting Goshawk		Secretary Bird
			Yellow Canary
			Fiscal Shrike

Table 3 shows that in 1964 all the species of which at one time or another during any one of the trips more than thirty were seen were also seen in over 70% of all trips.

For the 1967 visit the position is different in that only three of the seven "over 30" species were also seen on over 70% of all trips. This difference between the two years is understandable as 1964 was a year of drought with a limitation in the number of species and probably a concentration in

numbers, while 1967 had good rains with, therefore, less severe or extreme conditions, and less limitation in the number of species and their distribution and also less concentration in numbers of birds.

Worth singling out are:

- The Namaqua Dove which was very common in July 1967 but of which only two were seen in July 1964;
- The Red-headed Finch which was abundant in 1967 and not seen at all in 1964;
- The Masked Weaver which was common in 1967 and not seen at all in 1964.

There were other species which appeared to be commoner in 1967 than in 1964 but not so strikingly as the above three species.

A comparison between the species of birds seen in the Nossob and the Auob Riverbeds:

In Table 1 the species seen in the Nossob Riverbed and those in the Auob Riverbed are indicated separately and an analysis of this information reveals quite clearly that certain species were only seen in one of the two riverbeds although the majority occurred in both.

In Table 4 those species restricted to only one of the two riverbeds have been combined.

TABLE 4.

Species only seen in one of the two riverbeds during each of the two visits.
(The species in italics and underlined were restricted to the same riverbed during both visits)

Nossob		Auob	
July 1964	July 1967	July 1964	July 1967
<u>Wahlberg's Eagle</u>	Lappet-faced Vulture	Secretary Bird	Cattle Egret
Burchell's Courser	White-faced Vulture	White-faced Vulture	Black Korhaan
Grey Hornbill	<u>Wahlberg's Eagle</u>	Greater Kestrel	Cape Dikkop
Pied Barbet	Double-banded Courser	Karoo Korhaan	Namaqua Sandgrouse
	S.A. Nightjar	Double-banded Courser	Spotted Sandgrouse
	Scimitar-billed Hoopoe	Speckled Pigeon	<u>Namaqua Dove*</u>
	Spike-heeled Lark	Laughing Dove	Spotted Eagle Owl
	Grey Tit	<u>Namaqua Dove</u>	Scops Owl
	Crombek	African Hoopoe	White-faced Owlet
	Burchell's Glossy Starling	Long-billed Lark	Mozambique Roller
	Violet-eared Waxbill	Black Crow	Sabota Lark
		Grey Tit	Capped Weatear
		Cape Wagtail	Mountain Chat
		Bokmakierie	Yellow-billed Bush Warbler
		Grey-headed Sparrow	Pirit Flycatcher
		<u>Cape Sparrow</u>	Wattled Starling
			<u>Cape Sparrow**</u>

* In 1967 a few were also seen in the Nossob but the species was very common in the Auob.

** In 1964 and 1967 a few were seen in the Nossob as well but the species was common in the Auob.

Table 4 shows that only in the case of three species, i.e. Wahlberg's Eagle, Namaqua Dove and the Cape Sparrow, the position was the same for both the July 1964 and the July 1967 visits. In the other cases there was no confirmation. The Burchell's Glossy Starling does seem, however, to be limited in its distribution in the Nossob north of Kameelsleep.

The table also confirms the impression we already had gained that the Auob riverbed is the more interesting one for seeing birds.

Species seen by us, not previously recorded:

Although the total number of species recorded by other observers in the Reserve stands at 173, and we only saw 90, we saw three species which had not been recorded previously. These were: Cattle Egret, Mountain Chat and the Crombek. This, therefore, makes the total list 176.

BREEDING RECORDS

In July 1964 we noticed very little breeding activity. We recorded two occupied Tawny Eagle nests and one White-headed Vulture on the nest.

In July 1967 there was a considerable amount of breeding activity:

Tawny Eagle	3 occupied nests.
Martial Eagle	3 occupied nests.
Chanting Goshawk	1 nest being built, 1 nest containing a chick.
Greater Kestrel	1 occupied nest.
White-backed Vulture	4 occupied nests.
Secretary Bird	1 nest containing eggs and 1 containing a chick.
Fiscal Shrike	1 nest ready for eggs.
Scaly-feathered Finches	3 nests containing eggs, 1 nest containing chick, 1 occupied nest.
Sociable Weaver	nests containing chick which were heard calling.
Penduline Tit	1 newly built nest.

The considerable amount of breeding activity was undoubtedly influenced by the good rains during the previous months. Winterbottom, in his unpublished report mentions breeding of Scaly-feathered Finch and Pink-billed Lark.

Some records on prey:

In July 1964 a Yellow Hornbill was seen to eat a bird which probably was a Fawn-coloured Lark. A Fork-tailed Drongo was seen to carry what looked like a Yellow Seedeater.

In July 1967 a Tawny Eagle was observed to feed on a leg of a Black-backed Jackal.

Summary:

1. During two visits to the Kalahari Gemsbok National Park, one in July 1964, during a period of drought; and the other three years later in July 1967 when good rains had fallen previously, a total of 90 species of birds were recorded.

2. In 1964 seven species were found to be common or abundant, while in 1967 there were 18 common or abundant species. Six of these species were common during both visits.

3. In 1964 there were 23 species which were seen in more than 70% of all trips undertaken and in 1967 there were 25 species. Eighteen of these were the same for both visits. The other species have been tabulated according to whether they were seen during 50-69%, 25-49% and less than 25% of the trips undertaken in the Reserve.

4. In 1964 there was a fairly close correlation between the species which numerically were recorded as common or abundant and those which occurred in over 70% of the trips. In 1967 this correlation was not so apparent and the reason for this difference between the two years is believed to be the fact that the one was a drought year and the other a year with good rains.

5. The Namaqua Dove, Red-headed Finch and Masked Weaver were all three common or abundant in July 1967, but absent or occurring in very small numbers in July 1964.

6. A comparison between the species seen in the dry Nossob bed and those seen in the Auob bed reveals that only in the case of Wahlberg's Eagle, Namaqua Dove and the Cape Sparrow the distribution was chiefly restricted to one of the river beds during both visits. Moreover, the Burchell's Starling appeared to be restricted in distribution to the Nossob north of Kameelsleep. The comparison also shows that the Auob is the richer one in bird life.

7. The Cattle Egret, Mountain Chat and Crombek were new species seen for the Reserve.

8. In July 1964, there was very little breeding activity noted, but in 1967 there was a considerable amount of breeding activity.

9. Some observations are given on the prey of some birds.

REFERENCE

- De Villiers, J. S., 1958 — A Report on the Birdlife of the Kalahari Gemsbok National Park, Koedoe, No. 1: 143-161.
- Prozesky, O. P. M., 1962 — A Check-list of the Birds of the Kalahari Gemsbok National Park, Koedoe, No. 5: 171-182.
- Winterbottom, J. M., 1966 — Report on a trip to the Augrabies Falls and Kalahari Gemsbok National Park. Deposited in Percy FitzPatrick Institute of African Ornithology.



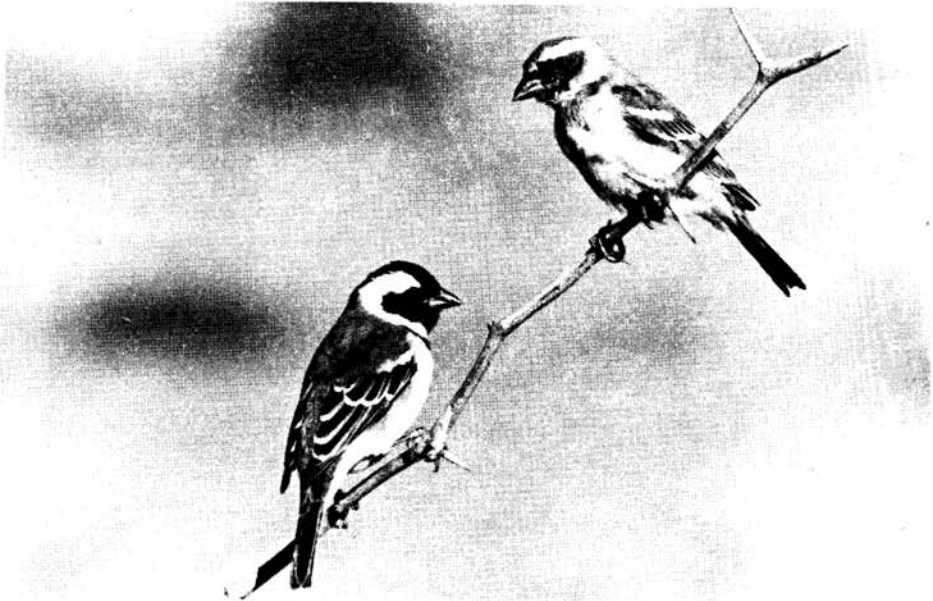
The Red-headed Finch which was one of the commoner species during our visit in July 1967 but which was not seen in July 1964.



*The Sociable Weaver, one of the typical birds of the Reserve.
(Photographs by G. J. Broekhuysen)*



Shaft-tailed Widow Birds which in July 1967 were seen in Nossob and Auob, but which were not seen in July 1964.



Cape Sparrow male and female. This species was common both in July 1964 and 1967.

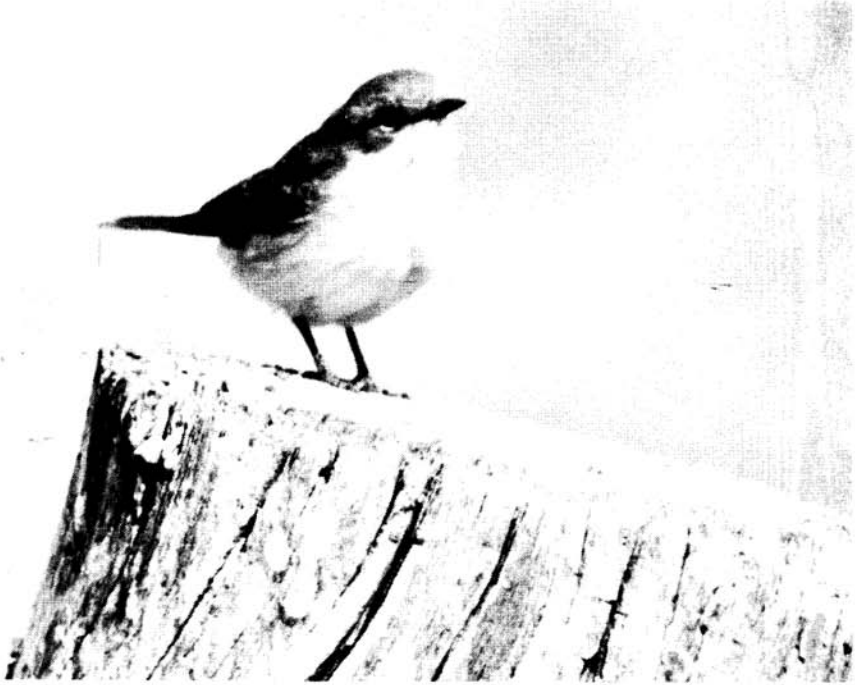
(Photographs by G. J. Broekhuysen)



Namaqua Dove male. This species was extremely common in July 1967, but we saw only two in July 1967.



*White-backed Vulture, one of the common vulture species in the Reserve.
(Photographs by G. J. Broekhuysen)*



Marico Flycatcher, one of the common species of the Reserve.



*Kori Bustard photographed in the Nossob.
(Photographs by G. J. Broekhuysen)*



White-faced Owlet rarely seen because it is so well camouflaged. They usually occur in pairs.



*The Giant Eagle Owl, the commonest owl species in the Reserve.
(Photographs by G. J. Broekhuysen)*



Double-banded Courser, a species not very often seen but nevertheless recorded several times in the Reserve. This picture was taken in July 1964. (Photograph by G. J. Broekhuysen)