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THE BIRDS AROUND RÖSSING URANIUM MINE, CENTRAL  
NAMIB DESERT: A PRELIMINARY LIST

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Apart from the work of Prozesky (1963), Willoughby & Cade (1967), Willoughby (1971) and Molyneux (1976), which vary greatly in their coverage, the avifauna of the Namib Desert has received little attention, and Willoughby's (*op. cit.*) statement that "the avifauna of the Namib Desert is relatively poorly known" still applies today. I thus take the liberty of presenting some very incomplete data collected in the course of other fieldwork done in 1984/85 in the vicinity of Rössing Uranium Mine, near the village Arandis, about 60 km SE of Swakopmund, and lying in the Central Namib Desert. The data are presented in the form of an annotated checklist, with little additional information, and must be regarded as preliminary.

STUDY AREA AND METHODS

Rössing Uranium Mine (22°29'S 15°03'E) is about 55 km from the coast and 2 km NW of the Khan River, a large tributary of the Swakop River, and lies on the Inner Namib Platform (Willoughby & Cade 1967) (Fig. 1). At this distance from the sea the climate is less influenced by the cold Benguela Current than places lying in the Coastal (or Outer) Namib, where fog-water precipitation forms a far greater proportion of the total annual precipitation than does rainfall. Fog does, however, penetrate as far as the Mine and condenses there (fog-water precipitation data are not available for Rössing Uranium Mine, but at Gobabeb (23°34'S 15°03'E), which is about the same distance from the coast, the mean annual fog-water precipitation (n=15y) is 30,79 mm (Lancaster et al. 1984). Long-term rainfall records are also lacking for the Mine, but the mean annual rainfall (n =18y) for Gobabeb is 27,20 mm (Lancaster et. al. 1984). Rainfall recorded at Point John (within the Mine boundary) for 1984 and 1985 is shown in Fig. 2).

Three of the seven "avian habitats" given by Willoughby & Cade (1967) and Willoughby (1971) for their Central Namib study area occur around the Mine: "Inner Gravel Flats" - "barren or sparsely vegetated gravel plains of the Inner Namib Platform"; "Open Bush" - "scattered bushes 60 cm to 3 m tall"; and "Rocks" - "large boulders, crevices and ledges with or without vegetation" (Willoughby *loc. cit.*). There are also a few scattered trees, mainly Camel Thorn *Acacia erioloba*, but never enough to make up their "Open Acacia Woodland". (The other three habitats they identified were: "Outer Gravel Flats",

"Sand Dunes", and "Kuisseb Riverine Forest"). In addition, there is the Mine itself, and the nearby Arandis Village, both of which have some well-watered gardens. Also associated with these are some semi-permanent to permanent bodies of open water, namely the large tailings (waste) dam (Fig. 1) and associated seepage pools below it; seepage ponds of Arandis Village, and of Goldfields Village (which was vacated and demolished towards the end of the study). As a waste disposal dam, the tailings dam has high concentrations of various salts and suspended solids and presents an environment inhospitable to most animals. No attempt was therefore made to visit this waterbody at any stage. (Pat Craven pers. comm.) informs me that the few birds that do occur in the vicinity of the dam are associated with some colonising marginal vegetation.)

Most of the sight records of the birds are from four sites used in an ecological survey of other animals in the area (Fig. 1), but birds seen when travelling between the sites and in the course of other activities in the area were also noted. There were 13 visits to the Rössing Uranium Mine area, most of 3 days duration, and starting on the following dates: 1984 - 4 June, 2 July, 30 July (= Winter), 19 November, 17 December; 1985 - 14 January, 11 February (= Summer), 11 March, 9 April, 6 May (= Autumn), 12 June, 1 July and 28 July (= Winter). I was unable to visit the area in August, September and October 1984.

The nomenclature of Maclean (1985) was followed.

## RESULTS

The observations are summarised in Table 1. It must be emphasized that these results were not obtained in a planned, systematic survey of the avifauna of the area, but merely from opportunistic observations incidental to other work. It is for this reason that the visits have been arbitrarily grouped together into the "seasons" indicated above. In addition to the 74 species listed (treating European Swift and Black Swift as one species), a Grey Lourie Corythaixoides concolor (clambering around a fairly steep rock face) and a Swallow-tailed Be-eater Merops hiundineus were seen during a visit (13 February 1985) to the Khan River, via the gorge where the Lower Ostrich survey site was. In this section of the gorge there were only a few scattered trees and bushes on the banks of the dry river bed. During the same visit a Rock Martin nest with an adult in attendance, probably incubating (the nest was inaccessible), was found under an overhang in a cliff next to the river. Seven other species were recorded breeding during the survey, and one possibly breeding (Table 1).

\*\*\*\* Diese Seite wurde ermöglicht durch eine Spende\*\*\*\*  
von P G GLASS, Windhoek

## DISCUSSION

It should be noted that the Arandis sewage ponds were visited from only the beginning of the Summer period onwards, which would account for the absence of some of the waterbirds during the 1984 Winter (the Goldfields Village sewage ponds were far smaller and so less attractive to these birds than the Arandis ponds).

Willoughby & Cade (1967) present a list of 107 bird species they observed in the Central Namib Desert, "excluding birds such as ducks and sandpipers, that are ordinarily considered to be water-birds". If the same is done for the Mine list, 53 species remain, four of which (Helmeted Guineafowl, Bradfield's Swift, Brownthroated Martin and African Marsh Warbler) do not appear among those listed by Willoughby & Cade (*loc. cit.*). Of these, the Brownthroated Martin was seen only at the Arandis sewage ponds, and the African Marsh Warbler was seen mainly there. Most of the species recorded by Willoughby & Cade (*loc. cit.*) and not recorded by me, were ones associated mainly with the Kuisseb Riverine Forest. Willoughby (1971) gives one to three species he considers to be "characteristic birds" of the avian habitats he and Willoughby & Cade (1967) recognised. Of these 15 species, only one of the three characteristic Open Acacia Woodland species (Sociable Weaver *Philetarius socius*), one of the three Open Bush species (Scalyfeathered Finch *Sporopipes squamifrons*), one of the three Riverine Forest species (Redfaced Mousebird *Colius indicus*), and the single Sand Dune species (Karoo Lark *Certhilauda albaescens*) were not recorded in the Rössing Uranium Mine area.

Molyneux (1971), in his study of the avifauna of a part of the northeastern corner of the Namib-Naukluft Park and adjoining farms, 55 km ESE of Rössing Uranium Mine, recorded 97 species, of which he unfortunately lists only 36. However, the two areas are not strictly comparable, as Molyneux's study area was on the eastern edge of the Central Namib Desert.

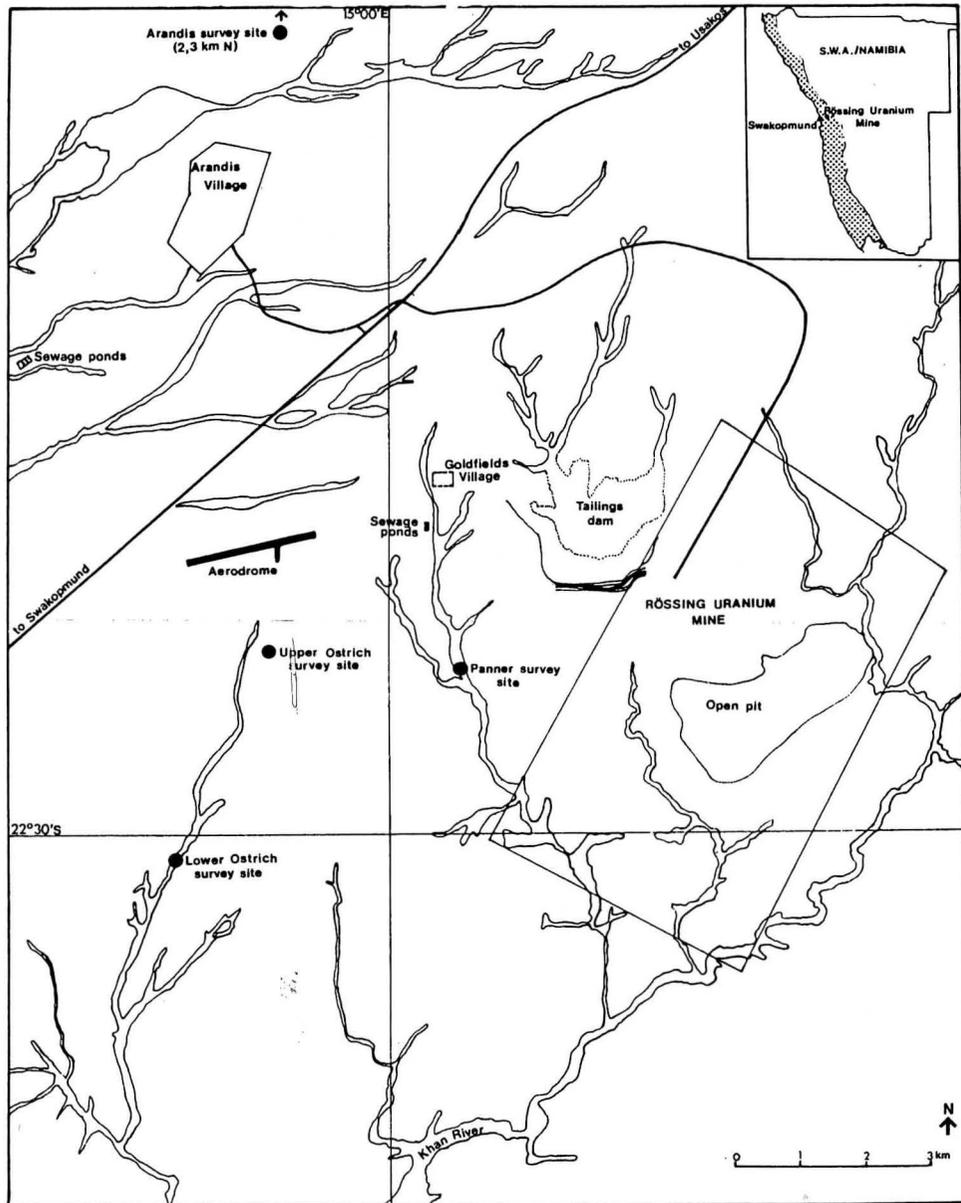
Three species, Stark's Lark, the Greybacked Finchlark and Larklike Bunting, appeared in large numbers following the summer rains. The influx of the two lark species is in accordance with Willoughby's (1971) findings that they are highly mobile and thus able to take advantage of locally favourable conditions for breeding.

None of the species recorded at the Mine was significantly outside of the distributional ranges shown by Maclean (1985).

## SUMMARY

In the course of 13 visits to Rössing Uranium Mine, Central Namib Desert, in 1984/85, records were kept of the birds seen in the course of other fieldwork around the Mine. 75 species were recorded in the area, but the list must be regarded as preliminary. If the birds associated with the various artificial waterbodies are excluded,

Fig. 1. Rössing Uranium Mine and environs. Arandis survey site ( $22^{\circ}22'S$   $14^{\circ}59'E$ ) fell outside the limits of the available detailed map of the area. Goldfields Village was vacated and demolished towards the end of the study. Inset: location of Rössing Uranium Mine, and the geographic limits of the Namib Desert.



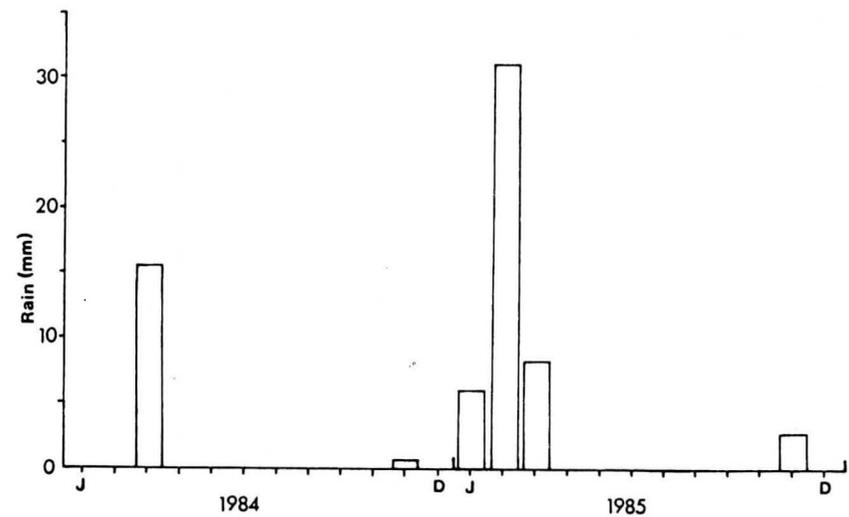
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Fig. 2. Monthly rainfall at Rössing Uranium Mine (Point John station) for 1984 and 1985.



the list is reduced to 54 species. Some good late summer rains apparently resulted in conditions favourable for breeding in some species.

### ZUSAMMENFASSUNG

Während 13 Besuchen bei der Rössing Uranium Mine, in der mittleren Namib, 1984/85 wurden Aufzeichnungen der dort gesehenen Vögel während der Feldarbeit im Gebiet der Mine gemacht. 75 Species wurden in dieser Gegend gezählt, jedoch darf die Liste nicht als vollständig angesehen werden. Wenn die Vögel, die auf verschiedenen künstlichen Gewässern leben, nicht mit eingeschlossen werden, bleiben noch 54 Species. Einige gute Sommerregen machten es anscheinend möglich, dass die Vögel dort brüten können.

### ACKNOWLEDGEMENTS

I am indebted to my former colleagues, Charmaine Meyer in particular, for additional observations and other information. I must thank Pat Craven for the various pieces of information she kindly supplied me with, and also Penny Frazer, Editor of Rössing News, for details of a Dusky Sunbird nest found near the Public Relations Offices.

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TABLE 1. LIST OF THE BIRDS RECORDED AROUND RÖSSING URANIUM MINE. (BREEDING RECORDS WERE BACKDATED TO THE PERIOD DURING WHICH THE EGGS WERE LAID; X=PRESENT; B=BREEDING; D=FRESHLY DEAD SPECIMEN. ARANDIS SEWAGE PONDS WERE VISITED ONLY AFTER THE 1984 WINTER PERIOD ONWARDS)

Species	Winter 1984	Summer 84/85	Autumn 1985	Winter 1985	Visits recorded on (max.=13)	Comments
<u>Ostrich</u> <u>Struthio camelus</u>	X	X	X	B	4	A few seen occasionally. 1 pair with 12 half-grown young on 29 July 1985
<u>Blacknecked Grebe</u> <u>Podiceps nigricollis</u>		X	X	X	3	Up to about 30 birds seen occasionally at Arandis sewage ponds.
<u>Dabchick</u> <u>Tachybaptus ruficollis</u>	X	X	X	X	6	A few recorded irregularly at both sets of sewage ponds.
<u>White Pelican</u> <u>Pelecanus onocrotalus</u>		X	X		2	A flock flying over in December, and a few birds at Arandis sewage ponds in April.
<u>Reed Cormorant</u> <u>Phalacrocorax africanus</u>			X		1	1 at Arandis sewage ponds in March.
<u>Grey Heron</u> <u>Ardea cinerea</u>		X	X		3	1 or 2 birds occasionally at Arandis sewage ponds.

Species	Winter 1984	Summer '84/85	Autumn 1985	Winter 1985	Visits re- corded on (max.=13)	Comments
<u>Blackheaded Heron</u> <u>A. melanocephala</u>				X	2	1 bird on both occasions - Arandis sewage ponds.
<u>South African Shelduck</u> <u>Tadorna cana</u>	B	X	B	X	12	A pair seen regularly at both sets of sewage ponds. 2 fully-fledged, non-flying young at Goldfields (3 July 1984), and 9 half-grown young at Arandis (8 May 1985).
<u>Cape Teal</u> <u>Anas capensis</u>		X	B	X	9	A few regularly seen at Arandis sewage ponds. 2 ducklings about half-grown seen on 8 May '85
<u>Redbilled Teal</u> <u>A. erythrorhyncha</u>				X	1	1 at Arandis sewage ponds in June 1985.
<u>Cape Shoveller</u> <u>A. smithii</u>			X	X	4	A few from March to June 1985, at Arandis sewage ponds.
<u>Maccoa Duck</u> <u>Oxyura maccoa</u>		X	X	X	8	A few seen regularly at Arandis sewage ponds.
<u>Pale Chanting Goshawk</u> <u>Melierax canorus</u>				X	1	1 immature bird near Arandis Village in July 1985.

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Species	Winter 1984	Summer '84/85	Autumn 1985	Winter 1985	Visits re- corded on (max.=13)	Comments
<u>Rock Kestrel</u> <u>Falco tinnunculus</u>	X	X	X	X	10	Recorded regularly at Panner survey site, and at the Mine.
<u>Helmeted Guinea fowl</u> <u>Numida meleagris</u>	X	X			2	A few seen at some of the seepage pools.
<u>Moorhen</u> <u>Gallinula chloropus</u>	X	X	X	X	12	Seen regularly at the sewage ponds, and occasionally at some seepage pools.
<u>Redknobbed Coot</u> <u>Fulica cristata</u>	X	X	X	X	12	Recorded regularly at the sewage ponds.
<u>Rüppell's Koorhaan</u> <u>Eupodotis rueppellii</u>	X	X	X	X	11	Seen or heard regularly.
<u>Kitzlitz's Plover</u> <u>Charadrius pecuarius</u>				X	2	A few seen at Arandis sewage ponds, on the last 2 visits.
<u>Threebanded Plover</u> <u>C. tricollaris</u>	X	X	X	X	13	Recorded on each visit, at the sewage ponds and/or some seepage ponds.
<u>Blacksmith Plover</u> <u>Vanellus armatus</u>	X	X	X	X	12	Usually present at both sets of sewage ponds.
<u>Common Sandpiper</u> <u>Tringa hypoleucos</u>		X	X		4	A few at Arandis sewage ponds.
<u>Wood Sandpiper</u> <u>T. glareola</u>		X			1	A few seen at Arandis sewage ponds, once.
<u>Marsh Sandpiper</u> <u>T. stagnatilis</u>		X			1	A few seen once, with the Wood Sandpipers.

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Species	Winter 1984	Summer '84/85	Autumn 1985	Winter 1985	Visits re- corded on (max.=13)	Comments
<u>Little Stint</u> <u>Calidris minuta</u>		X	X		5	Up to about 50 at Arandis sewage ponds, and some at Goldfields sewage ponds, once.
<u>Ruff</u> <u>Philomachus pugnax</u>		X			2	A few at Arandis sewage ponds.
<u>Avocet</u> <u>Recurvirostra avosetta</u>		X			1	3 at Arandis sewage ponds in January.
<u>Blackwinged Stilt</u> <u>Himantopus himantopus</u>		X	X	X	7	Up to about 5 seen regularly at Arandis sewage ponds. Distraction displays and much alarm calling, but no evidence of breeding found.
<u>Spotted Dikkop</u> <u>Burhinus capensis</u>			X	X	2	1 in Arandis Club garden, and 1 at Arandis sewage ponds.
<u>Doublebanded Courser</u> <u>Rhinoptilus africanus</u>		X			1	1 seen near Arandis Village in December.
<u>Namaqua sandgrouse</u> <u>Pterocles namaqua</u>	X	X	X	X	9	Regularly seen or heard flying overhead.
<u>Doublebanded Sandgrouse</u> <u>P. bicinctus</u>		X			1	A pair at Panner survey site in December.
<u>Rock Pigeon</u> <u>Columba guinea</u>	X		X	X	5	Recorded irregularly at the Mine, or at water.
<u>Laughing Dove</u> <u>Streptopelia senegalensis</u>	X	X	X	X	13	Widespread and quite common.
<u>Namaqua Dove</u> <u>Oena capensis</u>	X	X	<del>X</del>	X	10	Recorded quite regularly in small numbers.

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Species	Winter 1984	Summer '84/85	Autumn 1985	Winter 1985	Visits re- corded on (max.=13)	Comments
<u>European /Black Swift</u> <u>Apus apus/A. barbatus</u>	X	X	X	X	6	Flocks seen irregularly. Not always possible to determine which species, therefore data combined.
<u>Bradfield's Swift</u> <u>A. bradfieldi</u>			X		1	Recorded in March - probably overlooked on other visits.
<u>Little Swift</u> <u>A. affinis</u>			X		1	Recorded in April - probably overlooked on other visits.
<u>Whitebacked Mousebird</u> <u>Colius colius</u>	X	X	X	X	13	Seen regularly, usually at Panner survey site.
<u>Longbilled Lark</u> <u>Mirafra curvirostris</u>	X	X	X	X	12	A few birds seen or heard regularly.
<u>Stark's Lark</u> <u>Alauda starki</u>			X		2	Several birds displaying in March and April. (See text).
<u>Gray's Lark</u> <u>Ammomanes grayi</u>		X	X	X	3	Occasionally seen at Arandis survey site.
<u>Greybacked Finchlark</u> <u>Eremopterix verticalis</u>			B	X	4	Large numbers displaying in April, gradually dispersing. A nest with 2 eggs found near Arandis survey site on 10 April 1985 (see text).
<u>European Swallow</u> <u>Hirundo rustica</u>			X		1	A few in April at Arandis sewage ponds.
<u>Rock Martin</u> <u>Hirundo fuligula</u>	X	X	X	X	12	Seen regularly at or near the Mine.
<u>Brownthroated Martin</u> <u>Riparia paludicola</u>			X		1	A few at Arandis sewage ponds in April.

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Species	Winter 1984	Summer '84/85	Autumn 1985	Winter 1985	Visits re- corded on (max.=13)	Comments
<u>Black Crow</u> <u>Corvus capensis</u>		X	X	X	6	A few birds recorded irregularly.
<u>Pied Crow</u> <u>Corvus albus</u>	X	X	X	X	9	Some seen fairly regularly.
<u>Redeyed Bulbul</u> <u>Pycnonotus nigricans</u>	X			X	4	1 or 2 occasionally, at Panner survey site.
<u>Mountain Chat</u> <u>Oenanthe monticola</u>	X	X	X	X	13	Regularly seen in suitable rocky habitat.
<u>Capped Wheatear</u> <u>O. pileata</u>			X		1	1 seen once, near Goldfields Village.
<u>Familiar Chat</u> <u>Cercomela familiaris</u>	X	B	X	X	13	Seen regularly, usually in same areas as Mountain Chat. An adult seen with a fledgling in February.
<u>Tractrac Chat</u> <u>C. tractrac</u>	X	X	X	X	13	Widespread and common.
<u>Karoo Chat</u> <u>C. schlegelii</u>		X	X	X	4	Seen irregularly; probably overlooked on occasions (i.e. confused with Tractrac Chat).
<u>Titbabbler</u> <u>Parisoma subcaeruleum</u>		X		X	3	1 or 2 at Lower Ostrich and Arandis survey sites.
<u>African Marsh Warbler</u> <u>Acrocephalus baeticatus</u>	X	X	X	X	10	Fairly regularly throughout survey period, near water or in gardens.
<u>Longbilled Crombec</u> <u>Sylvietta rufescens</u>	X	X	X		6	Seen occasionally at Panner survey site.

Species	Winter 1984	Summer '84/85	Autumn 1985	Winter 1985	Visits re- corded on (max.=13)	Comments
<u>Yellowbellied Eremomela</u> <u>Eremomela icteropygialis</u>		X			3	Recorded regularly in Summer at Arandis, Panner and Lower Ostrich survey sites.
<u>Karoo Eremomela</u> <u>E. gregalis</u>	X	B(?)	X	X	8	Seen fairly regularly at Arandis and Lower Ostrich survey sites. 1 bird seen carrying what may have been nesting material at Lower Ostrich on 19 Dec. 1985.
<u>Rufouseared Warbler</u> <u>Malcorus pectoralis</u>				X	1	A single bird seen at Arandis survey site during the last visit.
<u>Chat Flycatcher</u> <u>Melaenornis infuscatus</u>	X	X	B		3	Occasionally at Arandis survey site. A pair seen feeding 2 fledglings on 10 April 1985.
<u>Cape Wagtail</u> <u>Motacilla capensis</u>	X	X	X	X	10	Seen regularly at various of the waterbodies.
<u>Fiscal Shrike</u> <u>Lanius collaris</u>	X	X	X	X	8	Recorded quite regularly, usually at Panner survey site, or near Goldfields Village
<u>Brubru</u> <u>Nilaus afer</u>	X				1	1 seen below Panner survey site, once.
<u>Bokmakierie</u> <u>Telophorus zeylonus</u>	X	X	X		5	Seen irregularly at Panner survey site.
<u>Palewinged Starling</u> <u>Onychognathus nabouroup</u>	X	X	X	X	13	Usually seen at or near the mine. Quite common.
<u>Dusky Sunbird</u> <u>Nectarinia fusca</u>	X	X	X	B	13	Fairly widespread and common. A nest at the Mine had small young on 1 May 1985 (P. Frazer pers. comm.).

Species	Winter 1984	Summer '84/85	Autumn 1985	Winter 1985	Visits recorded on (max.=13)	Comments
House Sparrow <u>Passer domesticus</u>	X	X	X	X	12	Quite common at Arandis Village and the Mine.
Cape Sparrow <u>P. melanurus</u>	X	X	X	X	13	Usually at Panner survey site and around Arandis Village.
Masked Weaver <u>Ploceus velatus</u>	X		X		3	A few seen occasionally near seepage pools.
Redheaded Finch <u>Amadina erythrocephala</u>				D	1	A freshly dead specimen found by Dr H. Berger-Dell'Mour (pers. comm.) near Upper Ostrich survey site in June 1985.
Whitethroated Canary <u>Serinus albogularis</u>	X	X	X		10	Seen regularly, mainly at Panner survey site, until Winter 1985.
Larklike Bunting <u>Emberiza impetuani</u>			X	X	4	Widespread and common from April onwards (see text).

## HISTORICAL RECORDS OF BIRDS ALONG THE NAMIB COAST

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## ZUSAMMENFASSUNG

Entscheidungen über den Naturschutz sollten aufgrund möglichst vieler Unterlagen getroffen werden. Zählungen der Vogelbevölkerung entlang der Namib Küste begannen erst in den 50er Jahren (Rand 1963), aber glücklicherweise gibt es ältere Aufzeichnungen, die Informationen über die Veränderung der Vogelbevölkerung geben können. Dieser Bericht bringt Zusammenhänge der Information über die Küstenvögel, enthalten in zwei historischen Aufzeichnungen - von Edens (1845) Besuch einiger Guano Inseln (Eden 1846) und Elers (1906) Besuch in dem heutigen Skelettküstenpark (Elers 1907).

Conservation decisions should be based on as broad a database as possible. Counts of bird populations along the Namib coast only began in the 1950s (Rand 1963) but fortunately there are some old records which provide information which can be used to gain some impression of the degree of change in bird populations. This note presents syntheses of the information on coastal birds contained in two historical records - Eden's 1845 visit to some of the guano islands (Eden 1846) and Elers 1906 visit to what is now the Skeleton Coast Park (Elers 1907).

## COASTAL BIRDS OF THE SOUTHERN NAMIB COAST, 1846

Mr T.E. Eden, a member of the Royal College of Surgeons in London, visited the southern Namib Coast in 1845 to explore for nitrate, valuable minerals or, in the final resort, guano. Eden was acting as a scientist trying to make an accurate report on what he found. Birds were of only passing interest for him and he writes at greater length on the minerals he found and on the composition of guano. Nevertheless, the information he presents on birds is important because, as a scientist, he took care not to mislead. He emphasises that the numbers of seabirds on the guano islands are in thousand but not in millions. This cautious approach to overall numbers is impressive for a period when many travellers liked to exaggerate the numbers of animals seen to impress their readers.

Sailing from Liverpool in the 573 ton barque Jessie he reached Possession Island, 27°1'S 15°12'E, on May 8 1845. There he found