

# Birds of the Naukluft Mountains: an annotated checklist.

H.J. Boyer

Department of Agriculture and Nature Conservation  
P O Box 1204  
Walvis Bay

P.A. Bridgeford

Department of Agriculture and Nature Conservation  
Private Bag 5021  
Walvis Bay

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## 1 INTRODUCTION

The Naukluft Mountain complex, South West Africa/Namibia, has a diverse avifauna. Not only is there a wide range of habitats, from the barren gravel plains to the west of the mountains to the dense riverine vegetation fringing perennial springs, but the mountains are situated at the junction of the Damaraland and Karoo zoogeographical areas (Joubert 1979). Thus this area is at the southern limit of the distribution of many Damaraland species such as the Whitetailed Shrike, Herero Chat, Rüppell's Korhaan, Rockrunner and Monteiro's Hornbill, and at the northern limit of the distribution of Karoo species such as the Karoo Robin and Cinnamonbreasted Warbler (Joubert 1979).

Very little has been published about the birds of the Naukluft Mountains. Information on some of the species was collected during 1938-39 and later included in an account of the birds of South West Africa/Namibia (Hoesch & Niethammer 1940), while the British Museum Expedition of 1949-50 spent a short time in the mountains (Macdonald 1957). An incomplete list of birds was included in an unpublished report for the Directorate of Nature Conservation (Joubert 1979). This paper presents the first complete checklist of the birds of the Naukluft Mountains.

## 2 DESCRIPTION OF THE AREA

The Naukluft Mountains (24°14'S 16°13'E) are situated on the eastern edge of the Namib Naukluft Park, South West Africa/Namibia (Fig. 1). They lie within the Semi-desert and Savanna Transition (Escarpment) vegetation zone of Giess (1971). The mountains consist primarily of dolomite and limestone rocks which, being soluble in rain water, allow for the formation of large underground caverns which act as major water reservoirs (R. Swart, pers. comm.). The water from these reservoirs reappears in numerous springs in the mountains, providing perennial water in an otherwise dry area. The average annual rainfall is 195,0 mm/annum (1969-1986) in the mountains, but is highly varia-

## ABSTRACT

The birds of the Naukluft Mountains and surrounding area, South West Africa/Namibia, are listed. The status and relative abundance of each species are given. Two hundred and four species have been recorded with a further 11 species requiring confirmation. Breeding has been proved for 64 species.

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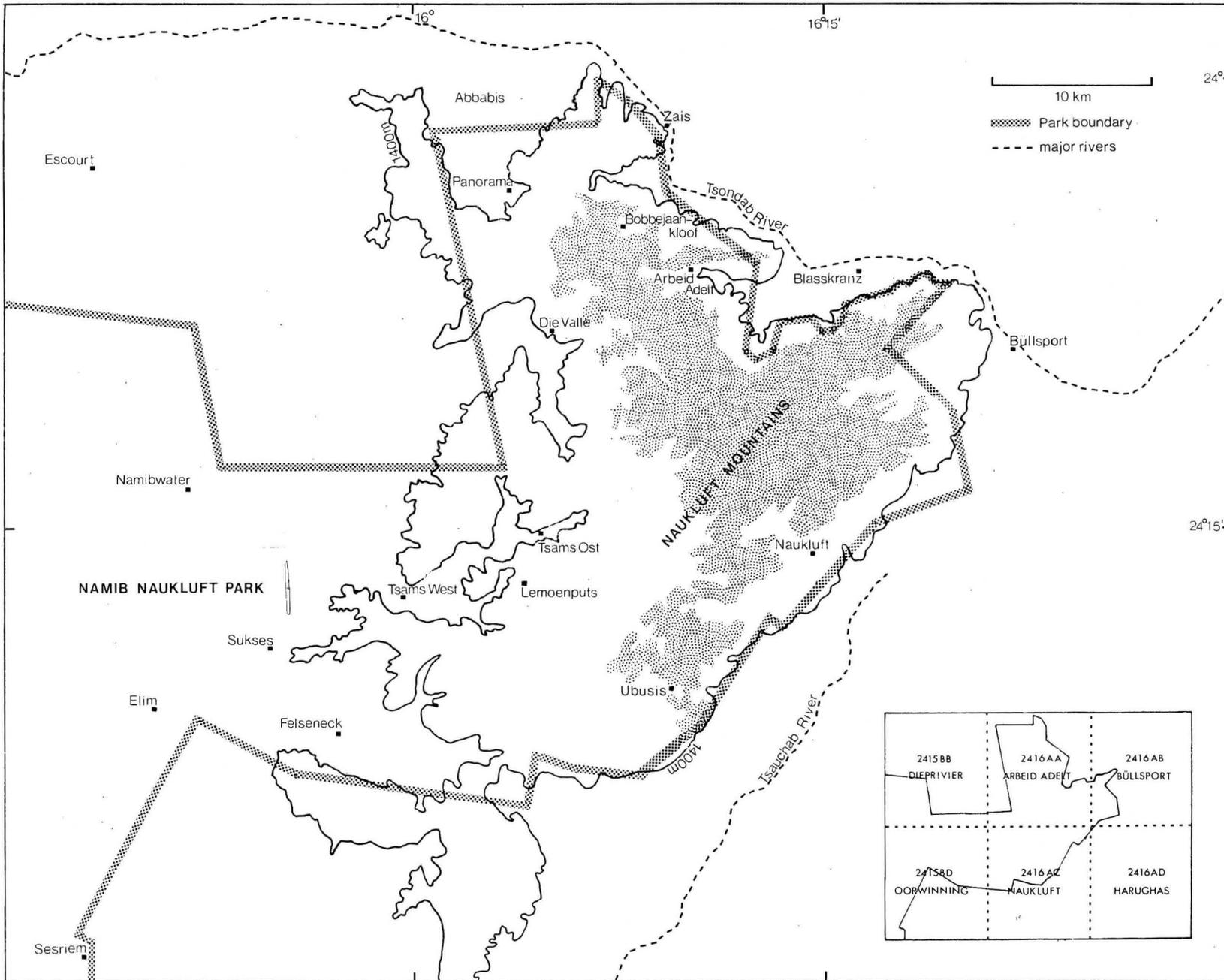


FIGURE 1: Map of the Naukluft Mountains. The 1400 m contour gives an indication of the extent of the mountains, with the stippled area representing the plateau. Birds recorded in the six 1/4° squares shown in the inset were included in the species list.

ble (range 50,6-531,6 mm/year) (Fig. 2). Altitude ranges from around 1000 m above sea level on the gravel plains to the west to a maximum of 1965 m on the mountain plateau.

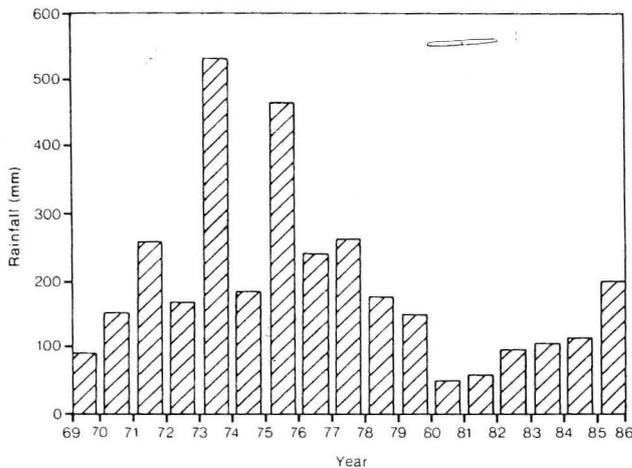


FIGURE 2: Annual rainfall (July-June) in the Naukluft Mountains. Rainfall figures were obtained by averaging data collected at Naukluft and Blasskranz from 1969-76 and Naukluft, Blasskranz and Zais from 1977-86.

The internationally recognized system for mapping bird distribution, and the one in current use in South West Africa/Namibia (Williams 1985), is to record all species occurring in each  $1/4^\circ$  square (i.e.  $15' \times 15'$ ). For this reason it was not practical to analyse the birds occurring only in the mountain habitats, but it was necessary to include all birds recorded in the six  $1/4^\circ$  squares which encompass the mountains (Fig. 1). Within this area six major habitat types can be recognized:-

- (a) Gravel Plains — situated to the west of the mountains. Sparsely vegetated with small shrubs such as *Rhigozum tricotomum* with some small trees such as *Boscia albitrunca* and *B. foetida*. *Acacia erioloba* occurs in water courses (Fig. 3).

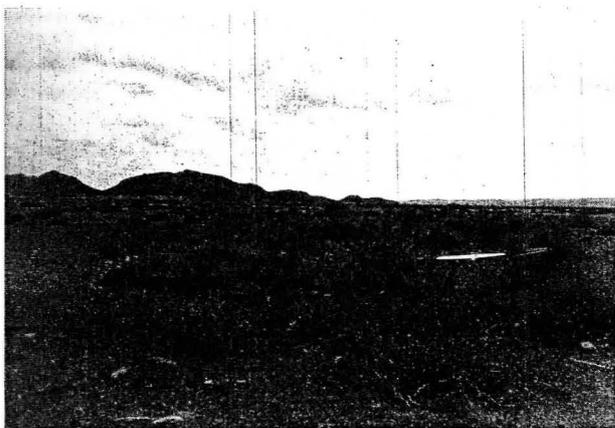


FIGURE 3: The sparsely vegetated gravel plains to the west of the Naukluft Mountains.

- (b) Dry valleys - on the periphery of the mountains. Also vegetated with small shrubs and a larger number of trees including *Acacia erioloba*, *A. tortilis*, *A. mellifera* and *Ziziphus mucronata* (Fig. 4).



FIGURE 4: The dry valleys on the periphery of the mountains support a number of small trees and shrubs.

- (c) Valley sides and mountain slopes — rock-strewn slopes sparsely vegetated with small shrubs, *Euphorbia virosa* and trees such as *Commiphora glaucescens*, *Moringa ovalifolia* and *Aloe dichotoma* (Fig. 5).

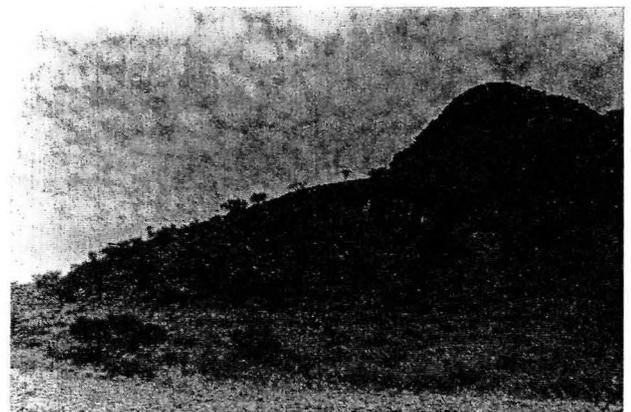


FIGURE 5: The mountain slopes are sparsely vegetated with shrubs and small trees.

- (d) Riverine valleys — watered by perennial springs which form large pools of open water in some valleys. Vegetation is relatively dense and includes large trees such as *Acacia karoo*, *Ficus sycamorus*, *F. cordata*, *Rhus lancia* with *Euclea pseudebenus* higher up on the banks. Also present are dense stands of reeds *Phragmites australis* and sedges *Cyperus* sp. (Fig. 6).



FIGURE 6: Perennial springs feed a number of riverine valleys.

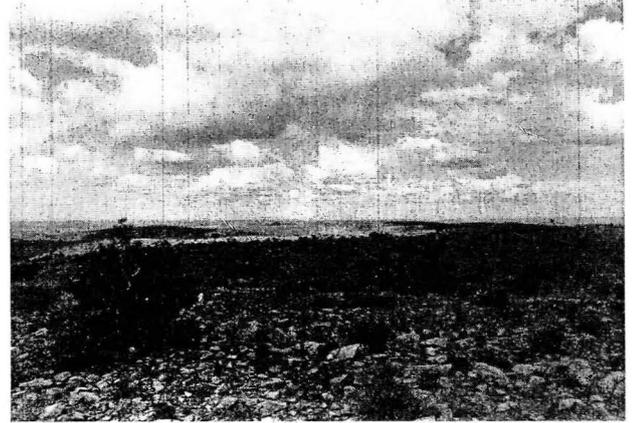


FIGURE 8: The plateau is situated about 800 m above the surrounding plains.

- (e) Cliffs and gorges — sheer rock faces, largely unvegetated (Fig. 7).

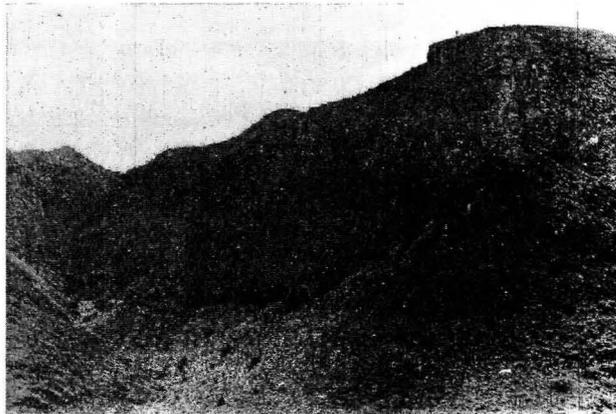


FIGURE 7: The sheer rock faces of cliffs and gorges are largely unvegetated.

- (f) Plateau - sparsely covered with small shrubs and trees such as *Acacia hereroensis*, *Euclea asperrima* and *Boscia albitrunca*. Vegetation similar to that of dry valleys occurs in washes. During the summer pans are filled with rainwater, and may remain flooded for several months (Fig. 8).

Nature Conservation personnel are stationed at Zais, Naukluft, Sukses, Tsams West and Sesiem, and occupied farms occur at Blasskranz and Bullsport. Gardens are cultivated at these places and, especially on the plains, attract a number of species which would not normally be expected in the area.

### 3 METHODS

A list of all species recorded in the area was compiled, using published sources (Hoesch & Niethammer 1940; Macdonald 1957), the records of the ornithological section of the Directorate of Nature Conservation, South West Africa/Namibia and our own records. Breeding records were obtained from the same sources. In the case of unusual records the observer's name is given in brackets. Most information was obtained from field cards completed up to the end of December 1986, but species recorded for the first time, and records of rarely recorded species observed during 1987 were also included. Most fieldcards were completed from 1982 onwards, when the South West Africa/Namibia bird atlas scheme was initiated, with only 26 cards completed before this (Table 1).

TABLE 1: Number of field cards submitted for each of the six 1/4° squares which encompass the Naukluft Mountains.

Year	Diep-rivier 2415BB	Oor-winning 2415BD	Arbeid Adelt 2416AA	Büll-sport 2416AB	Nau-kluft 2416AC	Harug-has 2416AD	Total
pre-1982	3	5	6	6	6	0	26
1982	6	11	11	10	12	0	50
1983	10	14	15	12	13	5	69
1984	10	14	27	15	9	0	71
1985	3	17	18	4	19	0	61
1986	5	22	19	3	18	0	67
Total	32	84	96	50	77	5	344

For each species the scientific name, common English and Afrikaans names and bird number are given, following the nomenclature used in the 5th edition of *Roberts' birds of southern Africa* (Maclean 1985).

Status and abundance categories were given to each species, using the definitions employed by Macdonald and Birkenstock (1980).

These can be summarized as follows:-

(a) Status

Resident — Species which can be found in the area in every month of the year.

Migrant — Species which can be found in the area in certain months of every year.

Nomad — Species which visit the area on an irregular basis.

(b) Abundance

Common — Species which can be found in suitable habitat whenever it is visited at the right time of the year.

Occasional — Species which can be found in low density in suitable habitat on almost every visit to that habitat at the right time of year.

Rare — Species which occur in such low numbers that suitable habitat must be visited often before the species is seen.

Vagrant — Species which are only represented by wandering birds visiting the area.

A numerical index of abundance was calculated using all field cards recorded up to the end of 1986. The total number of cards a species was recorded on is given, divided by the total number of cards completed for the area. In the case of migrants, the total number of cards submitted during the months the species could be expected to occur was used for the index. For

example the European Swallow, which occurs between September and April (Maclean 1985) could be recorded on a total of 235 cards submitted for these months (Table 2). Where the abundance of a species varied markedly between localities within the area, separate calculations of abundance were made. For example, Monteiro's Hornbill occurs commonly in the Arbeid Adelt and Büllsport 1/4° squares, but rarely elsewhere. The abundance index is given as 48/146, 146 being the total number of cards submitted for these two squares (Table 1). For the limitations of subjective and numerical ratings see Macdonald and Birkenstock (1980).

Where there is doubt as to the status or abundance of a species due to lack of information brackets have been used. This was most commonly used with the term 'breeding', where (breeding) denotes that a species was recorded breeding just outside of the area, or that breeding was suspected but not proved within the area. Doubtful species have been marked with an asterisk. For ease of reference these species have been included in the same list as the ones which definitely occur with the area.

#### 4 SPECIES LIST

*Struthio camelus*. Ostrich; Volstruis 001

Breeding resident. Common 120/344. Found on the plains surrounding the mountain complex, particularly in the west and northwest. Small chicks have been reported in May and June.

*Phalacrocorax carbo*. Whitebreasted Cormorant; Witborsduiker 055

Vagrant 1/344. A single record from Büllsport farm in December 1986 (W. Pfeifer).

TABLE 2: Number of field cards submitted per month for each of the six 1/4° squares which encompass the Naukluft Mountains.

Month	Diep-rivier 2415BB	Oor-winning 2415BD	Arbeid Adelt 2416AA	Büll- sport 2416AB	Nau- kluft 2416AC	Harug- has 2416AD	Total
Jan	4	6	7	2	8	0	27
Feb	0	7	5	5	7	1	25
Mar	7	8	10	4	9	1	39
Apr	0	5	8	4	7	1	25
May	3	11	5	1	6	0	26
Jun	2	2	6	1	5	0	16
Jul	6	9	7	1	4	0	27
Aug	1	7	12	10	5	1	36
Sep	4	6	10	5	5	1	31
Oct	2	7	7	6	5	0	27
Nov	1	7	9	2	8	0	27
Dec	2	8	9	7	8	0	34
Unknown	0	1	1	2	0	0	4

- Phalacrocorax africanus*. Reed Cormorant; Rietduiker 058  
Vagrant 1/344. Recorded at Naukluft in October 1981 (J. Bronkhorst). Two recent records, from Sesriem camp in June 1987 (B. Holton), and of an immature bird from Zais in December 1987 to January 1988.
- Ardea cinerea*. Grey Heron; Bloureier 062  
Vagrant 5/344. Recorded beside riverine pools in the Naukluft and Arbeid Adelt areas.
- Ardea melanocephala*. Blackheaded Heron (Blacknecked Heron); Swartkopreier 063  
Vagrant 1/344. A single bird seen on the Naukluft River in September 1982 (H.J.B.).
- Egretta garzetta*. Little Egret; Kleinwitreier 067  
Vagrant 2/344. One seen near Sukses house in October 1983 (E. Pieters), and on Büllsport farm in April 1985.
- Egretta intermedia*. Yellowbilled Egret; Geelbekwitreier 068  
Vagrant 1/344. One record from Sesriem camp in May 1986 (B. Holton).
- Bubulcus ibis*. Cattle Egret; Bosluisvoël 071  
Vagrant 8/344. Recorded from the Arbeid Adelt area, and from Sesriem camp.
- Ixobrychus minutus*. Little Bittern; Woudapie (Kleinrietreier) 078  
Vagrant 3/344. Three records from the garden at Zais, in February and December 1984, and December 1985 (P.A.B.; M. Bridgeford).
- Scopus umbretta*. Hamerkop; Hamerkop 081  
Breeding resident. Rare 17/344. Recorded mainly from the east and southeastern areas, in valleys where open water is found. Old nests have been found near perennial water, for example in the Die Valle, Ubusis, Naukluft and Arbeid Adelt valleys.
- Ciconia ciconia*. White Stork; Witooievaar 083  
Palearctic migrant. Vagrant 1/344. One record from the Oorwinning area in April 1985 (C. Vinjevold).
- Ciconia nigra*. Black Stork; Grootswart-oievaar 084  
(Resident). Rare 5/344. Recorded from riverine valleys, including the Tsams Ost valley in February 1979, Lemoenputs valley (Joubert 1979), the Arbeid Adelt area in September 1985 (C. Vinjevold) and Naukluft in August 1986 (G. Meaker). Also recorded from the dam at Büllsport farm on three occasions.
- Leptoptilos crumeniferus*. Marabou Stork; Maraboe 089  
Vagrant 1/344. One bird seen feeding on a carcass with Lappetfaced and Whitebacked Vultures at Namibwater in March 1982 (H.J.B.; D. Boyer).
- Threskiornis aethiopicus*. Sacred Ibis; Skoorsteenveër 091  
Vagrant 1/344. One record from the Oorwinning area in December 1979 (J. Holzhausen).
- Alopochen aegyptiacus*. Egyptian Goose; Kolgans 102  
Nomad. Rare 13/344. One record of five birds on the Tsauchab River in January 1978, (J. Conradie) and occasionally recorded flying over the area. Infrequently observed near the dam at Büllsport farm.
- Tadorna cana*. South African Shelduck; Kopereend (Bergeend) 103  
Vagrant 6/344. Recorded only from Büllsport farm dam.
- Anas sparsa*. African Black Duck; Swarteend 105  
(Resident). Rare 20/228. Occurs on secluded pools in riverine valleys, for example on the Naukluft, Lemoenputs and Tsams Ost Rivers.
- Anas erythrorhyncha*. Redbilled Teal; Rooibekeend 108  
Vagrant 2/344. Eighteen Redbilled Teals were recorded on the Tsauchab River with five Egyptian Geese (see above) in January 1978 (J. Conradie). One record from the Oorwinning area in February 1986 (C. Nicholson).
- Netta erythrophthalma*. Southern Pochard (Redeyed Pochard); Bruineend 113  
Vagrant 1/344. One record from Büllsport farm in December 1986 (W. Pfeifer).
- Sagittarius serpentarius*. Secretarybird; Sekretarisvoël 118  
Nomad. Rare 11/344. Found on the plains, mainly to the west.
- \**Gyps coprotheres*. Cape Vulture; Kransaasvoël 122  
Extinct. Previously there was a breeding colony of about 50 Cape Vultures at Rostock (C. Brown, pers. comm.), about 90 km to the north of the Naukluft region, and it could be expected that birds visited this area occasionally. There are two records from the plains, in March 1982 and November 1984, but these probably resulted from misidentification of Whitebacked Vultures.
- Gyps africanus*. Whitebacked Vulture; Witruugaasvoël 123

(Breeding) resident. Rare 14/344. Found in small numbers on the western plains. Breeding has been recorded just outside the area near Tsóndabvlei (Vinjevold 1987).

*Torgos tracheliotus*. Lappetfaced Vulture; Swartaasvoël 124

Breeding resident. Occasional 68/344. Found mainly on the plains to the west of the mountains, where it breeds during the winter months. Rarely recorded elsewhere in the area.

*Milvus migrans*. Yellowbilled/Black Kite; Geelbek/Swartwou 126

Migrant. Rare 8/183. Has been recorded on the plains to the south and west of the mountains, between November and March.

*Elanus caeruleus*. Blackshouldered Kite; Blouvalk 127

Nomad. Rare 6/344. Recorded on the plains bordering the mountains, with four records from the Naukluft area between December 1985 and August 1986. Also recorded from the Oorwinning and Büllsport areas.

*Aquila verreauxii*. Black Eagle (Verreaux's Eagle); Witkruisarend 131

Breeding resident. Common 112/344. Inhabits cliffs above valleys and gorges throughout the mountains. Also recorded on the plateau. Their large nests can be seen in most places where steep, inaccessible cliffs are found.

\**Aquila nipalensis*. Steppe Eagle; Steppearend 133

One bird seen on the plains near Sukses in March 1986, but confusion with a Tawny Eagle *Aquila rapax* is possible.

*Hieraaetus pennatus*. Booted Eagle; Dwergarend 136

Migrant. Vagrant 2/246. Recorded flying over Naukluft in March 1983 (D. Boyer) and from the garden at Zais in January 1986 and July 1987 (M. Bridgeford).

*Hieraaetus fasciatus*. African Hawk Eagle; Grootjagarend (Afrikaanse Jagarend) 137

Resident. Rare 16/344. Usually observed flying above rocky hillsides and valleys in the mountains.

*Polemaetus bellicosus*. Martial Eagle; Breëkoparend 140

Resident. Rare 17/344. Occurs on the plains, particularly to the west of the mountains, with 47% of the records for 1986, possibly reflecting a movement of birds into the area following good rains.

*Circaetus gallicus*. Blackbreasted Snake Eagle (Shorttoed Eagle); Swartbors-slangarend 143

Breeding resident. Occasional 74/344. Found on the plains in all areas. Breeding was recorded in November 1987 when a nest containing a large chick was found near the dunes to the west of Sukses.

\**Terathopius ecaudatus*. Bateleur; Berghaan (Stompstertarend) 146

One record from the Naukluft Mountains (Joubert 1979) but the origin of this record is unknown. Although it is possible that a vagrant was seen in the area, Steyn (1982) suggests that reports of Bateleurs from areas where they do not normally occur have probably resulted from Jackal Buzzards being misidentified as Bateleurs. At Naukluft, where both Jackal and Augur Buzzards occur and where plumage appears to be very variable (see below), this explanation is probable.

*Haliaeetus vocifer*. African Fish Eagle; Visarend 148

Vagrant 1/344. Two Fish Eagles seen perched above a large pool in the Tsauchab River in January 1978 (J. Conradie).

*Buteo rufofuscus*. Jackal Buzzard; Rooiborsjakkalsvoël 152

(Resident). There are 11 records of Jackal Buzzards, mainly from the mountains, but as the plumage is highly variable in the area, with a high proportion of the white-breasted form, it is difficult to distinguish between Jackal and Augur Buzzards. Naukluft is situated in an area where the two species overlap, possibly outside of the normal breeding range of the Jackal Buzzard. The proportion of white-breasted Jackal Buzzards seen in the area is higher than in other populations, suggesting that hybridization with Augur Buzzards may occur (C. Brown, pers. comm.).

*Buteo augur*. Augur Buzzard; Witborsjakkalsvoël 153

Resident. Occasional (63/228). Occurs in the mountains, above rocky hillsides and on the plateau, with two additional records from the Dieprivier area. The abundance index may be incorrect due to misidentification of the white-breasted form of the Jackal Buzzard (see above).

\**Accipiter badius*. Little Banded Goshawk (Shikra); Gebande Sperwer 159

One record from Zais in July 1986, but confusion with the following species is possible.

*Micronisus gabar*. Gabar Goshawk; Witkruissperwer (Kleinsingvalk) 161

(Breeding) resident. Rare 27/344. Occurs in well-vegetated valleys. Probably breeds in the area: one juvenile was recorded accompanying an adult in the Zais area in April 1984 (P.A.B.).

*Melierax canorus*. Pale Chanting Goshawk; Bleeksvalk 162

Resident. Common 143/344. Occurs on the plains throughout the area, and on the plateau.

*Polyboroides typus*. Gymnogene; Kaalwangvalk 169

Vagrant. One record of an immature bird from Sesriem in February 1987 (B. Holton).

\**Falco peregrinus*. Peregrine Falcon; Swerfvalk 171

One record from the Naukluft area in September 1985, but misidentification of the following species is possible.

*Falco biarmicus*. Lanner Falcon; Edelvalk 172

Resident. Occasional 36/344. Found mainly on the plains to the west of the mountains.

*Falco chicquera*. Rednecked Falcon; Rooinekvalk 178

Breeding resident. Rare 9/116. All records are from the Oorwinning area. Breeding was recorded at Sesriem in September 1986 (C. Brown) and just outside the area, about 14 km south of Sesriem camp, in October 1982 (D. Boyer).

*Falco tinnunculus*. Rock Kestrel (Common Kestrel); Rooivalk (Kransvalk) 181

Resident. Common 114/344. Found throughout the area, on the plains, above mountain valleys and on the plateau. Numbers may have increased recently, as Rock Kestrels were recorded on 23% of cards between 1980-84, and 50% during 1985-86, corresponding with an increase in rainfall.

*Falco rupicoloides*. Greater Kestrel; Grootrooivalk 182

(Breeding) resident. Occasional 58/344. Occurs mainly on the plains surrounding the mountains. Breeding was recorded on Harughas farm, 20 km southwest of the mountains, in December 1938 (Hoesch & Niethammer 1940).

*Polihierax semitorquatus*. Pygmy Falcon; Dwergvalk 186

(Breeding) resident. Rare 32/344. Found in well-vegetated valleys bordering the mountains. A juvenile was seen with a pair of adults in the Tsams Ost valley in May 1986 (H.J.B.).

*Francolinus levaillantoides*. Orange River Francolin; Kalaharipatrys 193

Vagrant 2/344. Two birds recorded on the plateau above Arbeid Adelt in March 1983 (D. Boyer) and one seen in scrubby vegetation on the eastern boundary of the park in February 1986 (P.A.B.).

*Francolinus adspersus*. Redbilled Francolin; Rooibekfisant 194

Breeding resident. Common in the Arbeid Adelt area 59/96, where it has been recorded breeding from October to July, with most clutches started between February and April. Four records from Büllsport and one from the Naukluft area.

*Coturnix coturnix*. Common Quail; Afrikaanse Kwartel 200

(Nomad). Recorded by Macdonald (1957) as 'fairly numerous on the desert margin just west of the Naukluft mountains' and collected by him on Kariëb farm, 20 km to the northwest. It appears that they may have moved into the area following good rains, as the plains at the base of the mountains were 'covered in waist-high grass'. No subsequent records.

*Coturnix delagorguei*. Harlequin Quail; Bontkwartel 201

Vagrant 1/344. Recorded at Sesriem in February 1987 (B. Holton).

*Numida meleagris*. Helmeted Guineafowl; Gewone Tarentaal 203

Breeding resident. Occasional 79/344. Found mainly in the valleys on the east and southeast of the mountains, infrequently in the west. Juveniles have been recorded in Arbeid Adelt in May.

*Porzana pusilla*. Baillon's Crake; Kleinriethaan 215

Vagrant 1/344. One bird seen foraging in the garden at Naukluft in February 1982 (H.J.B.).

*Porphyrio porphyrio*. Purple Gallinule; Grootkoningriethaan 223

Vagrant 1/344. One bird at Sesriem camp for period of 13 days in May 1982 (P. Roux).

*Ardeotis kori*. Kori Bustard; Gompou 230

Vagrant 4/344. Recorded at Panorama, the Oorwinning area, and twice in the Naukluft area.

*Neotis ludwigii*. Ludwig's Bustard; Ludwigse Pou 232

Breeding resident. Occasional 59/344. Widely distributed on the plains and plateau, with numbers increasing following good rains; recorded on 9% of cards between 1980-84 and 27% between 1985-86, after good rains. Two nests were found in March 1985; near the Tsondab River on the boundary with Escourt

farm and in the dunes. Nine records of Stanley's Bustard *Neotis denhami* have probably resulted from misidentification<sup>a</sup> of this species.

*Eupodotis rueppellii*. Rüppell's Korhaan; Woestynkorhaan (Damara Korhaan) 236

Breeding resident. Common 180/344. Widespread on the plains. Breeding has been recorded from March to June.

*Eupodotis afra*. Black Korhaan; Swartkorhaan 239

Resident. Occasional 40/344. Mainly confined to the plains on the southeast of the mountains, with seven records from the Dieprivier and Oorwinning areas.

*Actophilornis africanus*. African Jacana; Grootlangtoon 240

Vagrant 1/344. One bird seen feeding at a flooded pan on the plateau in April 1982 (H.J.B.; D. Boyer).

*Charadrius tricollaris*. Threebanded Plover; Driebandstrandkiewiet 249

Breeding nomad. Rare 15/344. Mainly found in valleys where open water occurs. Breeding was recorded at Arbeid Adelt house where a pair took advantage of a temporary pool formed from an overflowing reservoir (H.J.B.).

*Vanellus coronatus*. Crowned Plover; Kroonkiewiet 255

(Breeding) nomad. Rare 15/344. Found on the plateau and the plains to the west of the mountains. Breeding was suspected on the plateau in April 1982 when a bird was seen carrying out a distraction display, but no nest or chicks were found (H.J.B.).

*Vanellus armatus*. Blacksmith Plover; Bontkiewiet 258

Nomad. Rare 9/344. Most records are from the Oorwinning area, and from the dam on Bullsport farm, just outside the park.

*Tringa hypoleucos*. Common Sandpiper; Gewone Ruiter 264

Palaearctic migrant. Vagrant 2/271. One individual seen beside a pool in the Naukluft River in November 1981, and recorded from Zais in September 1982 (H.J.B.).

*Tringa nebularia*. Greenshank; Groenpootruiter 270

Palaerctic migrant. Vagrant 2/271. Both records are from the Oorwinning area, in February (C. Nicholson) and September (C. Vinjevoold) 1986.

*Calidris ferruginea*. Curlew Sandpiper; Krombekstrandloper 272

Palaerctic migrant. Vagrant 3/271. Recorded in September 1983 on the lawn at Sesriem house (P.A.B.) and in September (C. Vinjevoold) and December (B. Holton) 1986 in the Oorwinning area.

*Philomachus pugnax*. Ruff; Kempmaan 284

Palaerctic migrant. Vagrant 2/271. Recorded on the plateau in February 1979, beside a rain-filled pan (Joubert 1979) and in the Oorwinning area in December 1986 (B. Holton).

*Himantopus himantopus*. Blackwinged Stilt; Rooipootelsie 295

Vagrant 3/344. Recorded only from the Bullsport farm dam.

*Burhinus capensis*. Spotted Dikkop (Cape Dikkop); Dikkop 297

(Winter visitor). Vagrant 5/344. Occurred at Zais from May to August 1986 (P.A.B.). Said to be mostly sedentary throughout its range (Heyman *et al.* 1986), but it appears that there may be seasonal movements of birds into the area in the winter months. In the Kuiseb River, 100 km northwest of Naukluft, Spotted Dikkops were recorded in large numbers in the winter months of 1985, 1986 and 1987, but were absent during the rest of the year (H.J.B.; D. Boyer). Further investigations are required before any conclusions can be made.

*Cursorius rufus*. Burchell's Courser; Bloukoppdrawwertjie 299

Nomad. Rare 4/344. Recorded from the plains to the northwest of the mountains.

*Cursorius temminckii*. Temminck's Courser; Trekdrawwertjie 300

Vagrant 1/344. One record from the plains at Panorama in April 1986 (P.A.B.).

*Rhinoptilus africanus*. Doublebanded Courser; Dubbelbanddrawwertjie 301

Breeding nomad. Rare 23/344. Occurs on the plateau and the western plains. Breeding was recorded on the plateau where a half-grown chick was seen in December 1982 (H.J.B.).

*Pterocles namaqua*. Namaqua Sandgrouse; Kelkiewyn 344

Breeding nomad. Common 148/344. Occurs throughout the area, particularly on the plateau, and on the western plains where large numbers gather to drink at artificial watering points such as those at Felseneck and Elim.

*Pterocles bicinctus*. Doublebanded Sandgrouse; Dubbelbandsandpatrys 347

Nomad. Rare-occasional 25/344. Recorded through-

out the area, with half of the records from 1986, mainly from the Oorwinning area, suggesting a movement of birds into the area following good rains.

*\*Columba livia*. Feral Pigeon (Street Pigeon); Tuinduif 348

13/344. All records are for 1984-86, mainly from the Arbeid Adelt and Oorwinning areas. However it is doubtful whether the pigeons observed were truly feral. Feral Pigeons have been defined as 'free-flying, non-captive birds, independent of man's support' and must be largely self-sustaining (*i.e.* breeding in the wild), the population not maintained by escaped aviary pigeons (Brooke 1981). A number of the farms surrounding the Naukluft Mountains have large populations of domestic pigeons which are fed and breed there. It is probable that the birds observed in the park were from these populations, and were not breeding or obtaining all their food in the wild and therefore could not be considered Feral Pigeons.

*Columba guinea*. Speckled Pigeon (Rock Pigeon); Kransduif (Bosduif) 349

Breeding resident. Common 190/344. Widespread, particularly in the mountains where they occur in areas of steep cliffs and gorges above river valleys. Breeding was recorded in June 1987 (B. Holton).

*Streptopelia capicola*. Cape Turtle Dove; Gewone Tortelduif 354

Breeding resident. Common 127/344. Occurs on the plains surrounding the mountains, but largely absent from mountain areas. Breeding has been recorded just outside of the park on Büllsport farm (Hoesch & Niethammer 1940).

*Streptopelia senegalensis*. Laughing Dove; Rooiborsduifie (Lemoenduifie) 355

Breeding resident. Common 187/344. Widespread throughout the mountainous areas of the region where it inhabits well-vegetated valleys. Breeding has been recorded in all months of the year, except between May and July.

*Oena capensis*. Namaqua Dove; Namakwaduifie 356

Breeding nomad. Occasional to common 128/344. Occurs on the plains, particularly to the north and west of the mountains where numbers fluctuate according to conditions. In recent years frequency of observation has increased: 22% of 1980-84 cards recorded this species compared to 63% in 1985-86, suggesting an increase of this species in the area following good rains. Breeding was recorded in 1984 and 1986 in the Arbeid Adelt area, and occurred between January and April.

*Agapornis roseicollis*. Rosy-faced Lovebird; Rooiwangparkiet 367

Breeding resident. Common 196/344. Abundant in the mountains where they were recorded on 79% of cards. Also found in well-vegetated areas of the plains adjacent to the mountains and in the Tsondab River. Breeding occurs in rock crevices in cliffs such as those found above the Naukluft River. Due to the inaccessibility of these nesting sites there are few breeding records, but chicks have been recorded in March (C. Vinjevold).

*Corythaixoides concolor*. Grey Lourie; Kwêvoël 373

Breeding resident. Common in mountains 158/344. Found in well-vegetated valleys throughout the mountains and on the adjacent plains where there are sufficient trees. Breeding has been recorded between November and April.

*Cuculus gularis*. African Cuckoo; Afrikaanse Koekoek 375

Intra-African migrant. Vagrant 1/271. Recorded just east of the park, on Blasskranz farm, in December 1980 (W. Swanepoel).

*Cuculus clamosus*. Black Cuckoo; Swartkoekoek 378

Intra-African migrant. Vagrant 3/235. Recorded twice from Zais, in February 1984, and in December 1985 when three birds were seen next to the Tsondab River (P.A.B.). One bird was heard calling in an unspecified area of the mountains in February 1979.

*Clamator glandarius*. Great Spotted Cuckoo; Gevlekte Koekoek 380

(Breeding) intra-African migrant. Vagrant 2/235. One female collected at Blasskranz in March 1950 contained an egg which was ready to be laid (Macdonald 1957). Not recorded in the area again until February 1986, when one was seen at Zais (P.A.B.).

*Chrysococcyx klaas*. Klaas's Cuckoo; Meitjie 385

Intra-African migrant. Rare 7/189. Recorded between August and April in the mountains.

*Chrysococcyx caprius*. Diederik Cuckoo; Diederikkie 386

Breeding intra-African migrant. Occasional 40/140. Recorded in well-vegetated mountain valleys between October and April with one aseasonal record from the Arbeid Adelt area in June. Breeding was recorded in January 1969 with Masked Weavers as the host (J. Dixon).

*Tyto alba*. Barn Owl; Nonnetjie-uil 392

(Resident). (Rare) 9/344. Most records are from the plains in the Oorwinning area, but also recorded at Büllsport and Arbeid Adelt. As it is nocturnal, it is probably more common than records suggest.

- Otus senegalensis*. Scops Owl; Skopsuil 396  
(Resident). (Rare) 2/344. One record from Zais in August 1981, and from the Oorwinning area in March 1986.
- Otus leucotis*. Whitefaced Owl; Witwanguil 397  
Breeding resident. Rare 17/344. Found in valleys on the periphery of the mountains, with most records from Zais. Breeding was recorded at Naukluft in December 1981 (H.J.B.) and at Zais in October 1984 (P.A.B.).
- Glaucidium perlatum*. Pearlspotted Owl; Witkoluil 398  
Resident. (Occasional) 37/344. Only recorded in the Arbeid Adelt and Naukluft areas, but is the most frequently recorded owl in the region.
- \**Bubo capensis*. Cape Eagle Owl; Kaapse Ooruil 400  
(Resident). One bird was seen roosting in a large *Ficus sycamorus* growing beside the Naukluft River in November 1981 (H.J.B.). An owl responded to a taped call of a Cape Eagle Owl at Sesriem in 1985, but it was not clear whether it was a Cape or Spotted Eagle Owl, although on a second occasion when the tape was played two Spotted Eagle Owls were attracted towards the area (P.A.B.). Recently an injured Cape Eagle Owl was found on Namibgrens, a farm just north of the mountains (Brown 1987). It is a highly secretive species which was recorded in Zimbabwe for the first time only in 1967 (Steyn 1982) and was not known to occur in South West Africa until 1979 (Clinging 1980). Although the Naukluft record is unconfirmed, it is probable that there is a resident population in the area which has remained largely undetected due to its retiring nature.
- Bubo africanus*. Spotted Eagle Owl; Gevlekte Ooruil 401  
Resident. Occasional 20/344. Most records are from Naukluft where it occurs in rocky areas such as the cliffs above the Naukluft River, with scattered records from the rest of the region, including the gravel plains.
- Caprimulgus pectoralis*. Fierynecked Nightjar; Afrikaanse Naguil 405  
Vagrant 1/344. One bird was recorded on Büllsport farm in December 1982 (A. Williams).
- Caprimulgus rufigena*. Rufouscheeked Nightjar; Rooiwangnaguil 406  
Intra-African migrant. Vagrant 1/271. Collected in the Naukluft Mountains in March 1950 (Macdonald 1957), but not recorded in the area again until a bird was heard calling at Sukkes in December 1982 (A. Williams). Recently recorded at Sesriem in February 1987 (B. Holton).
- Caprimulgus tristigma*. Freckled Nightjar; Donkernaguil 408  
Vagrant 1/344. One record from the Oorwinning area in March 1986 (C. Nicholson).
- \**Apus apus*. European Swift; Europese Windswael 411  
Palaerctic migrant. (Occasional 27/152). Large flocks of dark-coloured swifts are frequently seen in the summer months throughout the area, particularly in the mountain regions. As the European Swift is extremely difficult to differentiate from the following species in should be considered indeterminate, although it could be expected to occur in the area (Winterbottom 1971).
- Apus barbatus*. Black Swift; Swartwindswael 412  
Intra-African migrant. (Occasional 27/235). Three specimens were collected at Blasskranz in March 1950 (Macdonald 1957). Large flocks of swifts often occur above the mountains in the summer months (see European Swift), at least some of which would be expected to be Black Swifts (Winterbottom 1971).
- Apus bradfieldi*. Bradfield's Swift; Muis-  
kleurwindswael 413  
Nomad. (Occasional) 11/344. Recorded mainly in the summer months in the vicinity of the mountains. Similar to other swifts, it is often overlooked, and may be more common than the abundance index suggests.
- Apus caffer*. Whiterumped Swift; Wit-  
kruiswindswael 415  
Breeding intra-African migrant. Rare 8/271. Most records are from the Naukluft area, where breeding was recorded in February 1939 (Hoesch & Niethammer 1940).
- Apus melba*. Alpine Swift; Witpens-  
windswael 418  
Intra-African migrant. Occasional 34/235. Recorded from September to April, with one June record. Most records are from the mountainous areas around Arbeid Adelt and Naukluft.
- Colius colius*. Whitebacked Mousebird; Witkruismuisvoël 425  
Breeding resident. Occasional 68/344. Found in the more open valleys on the edge of the mountains. Breeding has been recorded in November and December.
- Colius indicus*. Redfaced Mousebird; Rooiwangmuisvoël 426  
Resident. Rare 25/344. 80% of the records are from the Arbeid Adelt area, with the remaining records from scattered localities throughout the mountains.

- Merops apiaster*. European Bee-eater; European Byvreter 438  
Migrant. Vagrant 4/210. Recorded from October to December 1983 at Zais (P.A.B.), and in December 1986 at Naukluft (G. Meaker).
- Merops hirundineus*. Swallowtailed Bee-eater; Swaelstertbyvreter 445  
Breeding resident. Occasional 75/344. Found in the more open areas of the mountains, including the plateau. Breeding was recorded at Naukluft in October 1974 (R. Jensen).
- Coracias caudata*. Lilacbreasted Roller; Gewone Troupant 447  
Vagrant 1/344. Recorded from an unspecified area of the mountains in February 1979.
- Coracias naevia*. Purple Roller; Groottrouphant 449  
Resident. Occasional 59/344. Occurs on the lower slopes of the mountains and on the adjacent plains, particularly in the Arbeid Adelt area.
- Upupa epops*. Hoopoe; Hoephoep 451  
Resident. Rare 13/344. Mainly recorded from well-vegetated valleys in the lower reaches of the mountains, with one record from Sesriem camp. Most records are from the summer months.
- Phoeniculus purpureus*. Violet Woodhoopoe; Perskakelaar 453  
Vagrant 1/344. Recorded at Sesriem in May 1987 (B. Holton).
- Phoeniculus cyanomelas*. Scimitarbilled Woodhoopoe (Scimitarbill) Swartbekkakelaar 454  
Breeding resident. Occasional in mountains 74/228, rare elsewhere 4/116. Found throughout the mountains in the dense vegetation fringing streams and pools, and the drier valleys and river washes on the edge of the mountains. Breeding has been recorded in December and March.
- Tockus monteiri*. Monteiro's Hornbill; Monteirose Neushoringvoël 462  
Resident. Occasional in the Arbeid Adelt and Bullsport areas 48/146. Found mainly in the Tsondab River and other well-vegetated valleys in the Arbeid Adelt area. Only two records from elsewhere, from Naukluft in June and August 1986.
- Lybius leucomelas*. Pied Barbet; Bonthoutkapper 465  
Breeding resident. Common 165/344. Widespread throughout the area. Occurs on the plateau and mountainsides, in riverine valleys, in drier valleys and in river washes on the plains. Breeding has been recorded between August and February and on two occasions attempted parasitism by Lesser Honeyguides was observed. On one of these occasions the nesting attempt was abandoned by the barbets, while the outcome of the other attempt is unknown (H.J.B.).
- Indicator minor*. Lesser Honeyguide; Kleinheuningwyser 476  
(Breeding) resident. Occasional 11/344. Occurs in well-vegetated valleys and washes in the mountains, on the plateau and in suitable areas on the adjacent plains. Two attempts to parasitize Pied Barbet nests were observed in December 1981 and January 1982 (see above). This species is easily overlooked and is probably more abundant than records indicate.
- Campethera abingoni*. Goldtailed Woodpecker; Goudstertspeg 483  
Resident. Occasional 25/228. Found only in the vicinity of the mountains where it occurs in valleys and in river washes.
- Dendropicos fuscescens*. Cardinal Woodpecker; Kardinaalspeg 486  
(Breeding) resident. Occasional 44/228. The most frequently recorded woodpecker in the area. It is found in habitats similar to those of the previous species. One fully-fledged juvenile was recorded in the Arbeid Adelt area in January 1985 (P.A.B.).
- Thripias namaguus*. Bearded Woodpecker; Baardspeg (Namakwaspeg) 487  
Vagrant 1/344. One record from Naukluft in June 1983 (P.A.B.).
- \**Mirafra apiata*. Clapper Lark; Hoëveldklappertjie 495  
Two records from the Arbeid Adelt and Bullsport areas in August 1984, but confusion with other larks cannot be ruled out.
- \**Mirafra africanoides*. Fawncoloured Lark; Vaalbruinlewerik 497  
Recorded at Naukluft in June 1982, but possibly confused with the Sabota Lark, which is similar in appearance and has been recorded in the area on several occasions.
- Mirafra sabota*. Sabota Lark; Sabotalewerik 498  
Resident. Occasional 30/344. Recorded in areas of short scrubby vegetation, such as on the plateau and sloping hillside of the mountains, dry open valleys and plains. Collected in the area in 1950 (Macdonald 1957).

- Mirafra curvirostris*. Longbilled Lark; Langbeklewerik 500  
(Resident/Nomad). Rare 8/344. Collected in the Naukluft Mountains in 1938 (Hoesch & Niethammer 1940). Recorded from rocky areas of the plateau and from the western plains.
- Mirafra erythrochlamys*. Dune Lark; Duinlewerik 503  
(Resident). (Occasional). One record from the dunes in the Oorwinning area in February 1987 (C. Vinjevold).
- Chersomanes albofasciata*. Spikeheeled Lark; Vlaktelewerik (Vlakvoël) 506  
(Resident/Nomad). Rare 4/116. Collected in the area in 1938 (Hoesch & Niethammer 1940). Recorded from the plains to the west and northwest of the mountains.
- Alauda starki*. Stark's Lark; Woestynlewerik 511  
Nomad. Rare 5/116. All records are from the western plains.
- Ammomanes grayi*. Gray's Lark; Namiblewerik 514  
Vagrant. One recent record from the Oorwinning area in June 1987 (C. Vinjevold).
- Eremopterix verticalis*. Greybacked Finch-lark; Grysruglewerik 516  
Breeding nomad. Occasional 45/344. Most records are from the plains to the west, but seen infrequently in other areas, such as open valleys within the mountains. Breeding was recorded in April 1986 in the Arbeid Adelt area (P.A.B.).
- Hirundo rustica*. European Swallow; Europese Swael 518  
Palaeartic migrant. Rare 10/235. Small numbers of birds are infrequently seen between October and March, mainly in the mountains.
- Hirundo cucullata*. Greater Striped Swallow; Grootstreepswael 526  
Breeding intra-African migrant. Common 63/189. Commonly observed in the mountains during the summer months, with records between October and May. One record from the Oorwinning area. Nest-building has been recorded during December and January.
- Hirundo spilodera*. South African Cliff Swallow; Familieswael 528  
Intra-African migrant. Vagrant 1/271. One record from Naukluft in November 1986 (H. Dedekind).
- Hirundo fuligula*. Rock Martin; Kransswael 529  
Breeding resident. Common 218/344. Occurs throughout. Breeding has been recorded between August and June, with a peak in February.
- Delichon urbica*. House Martin; Huiswael 530  
Palaeartic migrant. Vagrant 1/208. Recorded from Naukluft in December 1986 (G. Meaker).
- Riparia paludicola*. Brownthroated Martin (African Sand Martin); Afrikaanse Oewerswael 533  
Vagrant 1/344. One bird was seen hawking insects above a water reservoir at Zais in September 1982 (H.J.B.).
- Dicrurus adsimilis*. Forktailed Drongo; Mikstertbyvanger 541  
Breeding resident. Occasional 87/344. Found on the plains to the east and southeast of the mountains, and in the Tsondab River. Does not penetrate into the mountains. Two records from the Dieprivier area. Breeding has been recorded at Zais during December and January (P.A.B.).
- Oriolus oriolus*. European Golden Oriole; Europese Wielewaal 543  
Palaeartic migrant. Vagrant 3/208. Recorded at Zais in February 1985, and January and February 1986 (P.A.B.).
- \**Oriolus auratus*. African Golden Oriole; Afrikaanse Wielewaal 544  
One record from the Arbeid Adelt area in March 1984. This is outside the known range of this species, but there was an influx of these birds to the Windhoek area, also outside of its expected range, during 1986-87 indicating that they may occasionally be eruptive in character (C. Brown, pers. comm.). Confusion with the previous species is possible.
- Corvus capensis*. Black Crow; Swartkraai 547  
Breeding resident. Occasional in west 39/116, elsewhere rare 6/228. Occurs on the plains to the west of the mountains. Breeding was recorded at Bullsport farm in November 1938 (Hoesch & Niethammer 1940).
- Corvus albus*. Pied Crow; Witborskraai 548  
Resident. Common on plains 45/116. Elsewhere rare 7/228. Found on the western plains, particularly around inhabited areas such as Sesriem and Sukses.
- Parus cinerascens*. Ashy Tit; Acaciagrismees 552  
Breeding resident. Occasional 68/344. Occurs in well-vegetated areas, including trees fringing streams and

pools, dry valleys within the mountains, and river washes on the adjacent plains. Nestbuilding was recorded in December 1982 at Naukluft (H.J.B.), and a nest containing three eggs was found on Büllsport farm in November 1938 (Hoesch & Niethammer 1940).

*Anthoscopus minutus*. Cape Penduline Tit;  
Kaapse Kapokvoël 557

Breeding resident. Rare 13/344. Recorded nesting at Zais in 1979, then not recorded again until 1985 and 1986 when activity near nests was observed near Blasskranz and at Zais, during December and March (P.A.B.). A nest containing three chicks was found at Blasskranz during March 1950 (MacDonald 1957), and old nests have been found at Naukluft and on Büllsport farm.

*Pycnonotus nigricans*. Redeyed Bulbul;  
Rooioogtiptol 567

Breeding resident. Common 192/344, particularly in the mountains, where it was recorded on 74% of cards. On the western plains mainly confined to inhabited areas like Sesriem and Sukkes. Breeding has been recorded between December and March.

*Turdus olivaceus*. Olive Thrush; Olyflyster 577

(Winter visitor). Vagrant 4/344. Recorded from Zais in June 1983, July to September 1986 and July to August 1987 (P.A.B.). These records are about 400 km north of the known range of this species (Maclean 1985), but it is interesting to note that the Olive Thrush is also recorded during the winter months in the Kuiseb River (H.J.B.; D. Boyer), 130 km northwest of the Naukluft Mountains, indicating that a northward movement of this species may occur during winter.

*Turdus litsitsirupa*. Groundscraper Thrush;  
Gevlekte Lyster 580

Breeding resident. Occasional in the Arbeid Adelt area 49/96, rare elsewhere in the mountains 2/132. Found in well-vegetated areas on the eastern edge of the mountains. Breeding has been recorded at Zais between October and March.

*Monticola brevipes*. Shorttoed Rock  
Thrush; Korttoonklyplyster 583

Breeding resident. Occasional 81/228. Confined to the mountains where it occurs on rocky hillsides, and rocky areas of the plateau. Nests were found on steep slopes in December 1938 (Hoesch & Niethammer 1940).

*Oenanthe monticola*. Mountain Chat; Berg-  
wagter 586

Breeding resident. Common 226/344. Widespread throughout the area, especially in the mountains where it was recorded on 76% of cards. Found in all areas of the mountains, including riverine valleys,

rocky hillsides and the plateau. On the plains found wherever rocky outcrops occur, and around buildings, which are frequently used as nest sites. Breeding has been recorded between November and June.

*Oenanthe pileata*. Capped Wheatear;  
Hoëveldskaapwagter 587

Intra-African migrant. Rare 4/219. Recorded from the western plains, and from Zais.

*Cercomela familiaris*. Familiar Chat;  
Gewone Spekvreter 589

Breeding resident. Common 132/344. Occurs throughout the area. In the mountains found in valleys and on rocky hillsides. On the plains in river washes and around houses. Breeding has been recorded between September and April.

*Cercomela tractrac*. Tractrac Chat;  
Woestynspekvreter 590

(Resident). Rare 4/116. All records are from the western plains.

*Cercomela schlegelii*. Karoo Chat;  
Karoospekvreter 592

Breeding resident. 21/344. Common on the plateau. Occurs in smaller numbers on the western plains. Breeding was recorded in an unspecified area of the Naukluft Mountains and on the plateau in November and December 1938 (Hoesch & Niethammer 1940). The low abundance index is probably a result of there being infrequent visits to the plateau.

*Myrmecocichla formicivora*. Anteating  
Chat; Swartpiek 595

Vagrant 1/344. Recorded from the Tsams Ost valley in November 1986 (D. Allen). One recent record from the plateau near Ubuis in February 1988 (C. Vinjevold).

*Erythropygia coryphaeus*. Karoo Robin;  
Slangverklikker 614

Breeding resident. Occasional 62/228. All records are from the east and southeast, where it occurs in scrubby vegetation at the base of the mountains, and around dwellings at Zais and Naukluft. Breeding was recorded at Zais in November 1985, when the nest was built in a palm tree in the garden (P.A.B.). This is an unusual record as nests are usually built on the ground (Macklean 1985). The Naukluft Mountains appear to be the northern limit of the distribution of this species (Winterbottom 1971).

*Namibornis herero*. Herero Chat;  
Hererospekvreter 618

Resident. Rare 6/228. Recorded in scrubby vegetation at Panorama and in similar habitat on the side of the mountains at Ubuis (P.A.B.). Both are dry rocky areas with sparse vegetation. The Naukluft Mountains

appear to be the southern limit of the distribution of this species (Maclean 1985; Winterbottom 1971).

*Sylvia borin*. Garden Warbler; Tuinsanger 619  
 Palaearctic migrant. Vagrant 2/235. Recorded from the Naukluft valley in November and December 1982 (H.J.B.; A. Williams).

*Parisoma subcaeruleum*. Titbabbler; Bosveldtjerkittik 621  
 Breeding resident. Common 120/344. Occurs throughout the area. Breeding has been recorded between September and April.

*Parisoma layardi*. Layard's Titbabbler; Grystjerkittik 622  
 Breeding resident. Occasional 27/228. Found in small shrubs in riverine valleys, such as the Naukluft and Arbeid Adelt valleys, and in similar vegetation in dry valleys on the periphery of the mountains. Breeding was recorded in December 1938 in the Naukluft area (Hoesch & Niethammer 1940).

*Hippolais icterina*. Icterine Warbler; Spotvoël 625  
 Palaearctic migrant. Vagrant 2/208. Both records are from the Büllsport area.

*Acrocephalus baeticatus*. African Marsh Warbler; Kleinrietsanger 631  
 Intra-African migrant. Rare 5/246. Occurs in reeds fringing open water, for example in the Naukluft River.

*Acrocephalus schoenobaenus*. European Sedge Warbler; Europese Vleisanger 634  
 Palaearctic migrant. Vagrant 1/203. Recorded from reeds growing in the Naukluft River in December 1982 (A. Williams).

*Phylloscopus trochilus*. Willow Warbler; Hofanger 643  
 Palaearctic migrant. (Rare) 4/261. Recorded in 1981 and 1982 in trees fringing the Naukluft River, and from Tsams Ost in November 1986. An easily overlooked species, it is probably more common than the records suggest.

*Sylvietta rufescens*. Longbilled Crombec; Bosveldstompstert 651  
 Breeding resident. Occasional 63/228. Only recorded in the mountains where it occurs in well-vegetated valleys, water courses, etc. Breeding has been recorded between September and January.

*Eremomela icteropygialis*. Yellowbellied Eremomela; Geelpensbossanger 653

Resident. Rare 19/344. Found mainly in the mountains, in scrubby vegetation in valleys and on hillsides.

*Eremomela usticollis*. Burntnecked Eremomela; Bruinkeelbossanger 656  
 Vagrant 3/344. Recorded from Zais in January and February 1985, May 1986 and June 1987. Mating was observed in January 1985 (P.A.B.).

*Camaroptera brachyura*. Bleating Warbler; Kwê-kwêvoël 657  
 Vagrant 2/344. One bird seen in scrubby vegetation near Ubuis in January 1982 (H.J.B.) and recorded from Büllsport farm in March 1983 (P. Becker, G. Seifert).

*Camaroptera fasciolata*. Barred Warbler; Gebande Sanger 658  
 Vagrant 1/344. One record from an unspecified area of the mountains in February 1979.

*Euryptila subcinnamomea*. Cinnamon-breasted Warbler; Kaneelborssanger 660  
 Vagrant 2/344. Collected in the Naukluft Mountains in 1938 (Hoesch & Niethammer 1940) and recorded in October 1974 (R. Jensen). The Naukluft Mountains appear to be the northern limit of its range (Maclean 1985).

*Achaetops pycnopygius*. Rockrunner (Damara Rockjumper); Rotsvoël 662  
 Resident. Rare 4/228. Recorded from scattered localities in the mountains; the Büllsport area, Tsams Ost, Ubuis and Bobbejaankloof.

*Cisticola aridula*. Desert Cisticola; Woestynkloppie 665  
 (Resident) 1/344. One record from the plateau in February 1979, but the lack of records may be due to the difficulty in identifying this species.

*Cisticola subruficapilla*. Greybacked Cisticola; Gysrugtintinkie 669  
 Breeding (resident). Rare 4/344. Collected, and recorded as breeding, in December 1938 (Hoesch & Niethammer 1940). Other records from hillsides in the east and southeastern areas of the mountains, where it was said to be fairly plentiful (Joubert 1979).

*Prinia flavicans*. Blackchested Prinia; Swartbandlangstertjie 685  
 Breeding resident. Occasional 71/344. Most records are from the Arbeid Adelt area (49/96), where it occurs in scrubby vegetation at the base of the mountains. Also found in vegetated areas of the western plains, in river washes, etc. Largely absent from the mountains. Breeding has been recorded in January and March.

*\*Prinia maculosa*. Spotted Prinia (Karoo Prinia); Karoolangstertjie 686

One record from the southwestern area of the mountains in March 1986. Although the range of this Karoo species may extend as far north as the Naukluft Mountains, confusion with a Blackchested Prinia in partial breeding plumage is possible.

*Malcorus pectoralis*. Rufouseared Warbler; Rooioorlangstertjie 688

(Resident). Rare 2/344. Collected in the mountains in 1938 (Hoesch & Niethammer 1940). Recorded in scrubby vegetation on the plateau in May 1982 (H.J.B.) and in the Oorwinning area in July 1986 (B. Holton).

*Muscicapa striata*. Spotted Flycatcher; Europese Vlieëvanger 689

Palearctic migrant. Occasional 18/120. Recorded in the mountains where it occurs in well-vegetated areas, such as riverine valleys. An easily overlooked species, it is probably more common than the abundance index suggests.

*Melaenornis mariquensis*. Marico Flycatcher; Maricovlieëvanger 695

Breeding resident. Rare 14/344. Occurs on the plains to the north of the mountains, with a few records from the Tsondab River valley and the plains to the southeast. Breeding was recorded on Büllsport farm in November 1938 (Hoesch & Niethammer 1940).

*Melaenornis infuscatus*. Chat Flycatcher; Grootvlieëvanger 697

(Breeding) resident. Common on the plateau, rare on the plains 9/344. Although it is more common on the plateau, there are few records from this area as it is visited infrequently. An adult was observed feeding a fully-fledged juvenile near Elim in December 1982 (A. Williams).

*Batis pririt*. Pririt Batis; Priritbosbontrokkie 703

Breeding resident. Common 141/344. Found mainly in the mountains (127/228), but occasionally in areas of suitable habitat on the plains, such as in river washes. Breeding has been recorded between November and March.

*Terpsiphone viridis*. Paradise Flycatcher; Paradysvlieëvanger 710

Intra-African migrant. Vagrant 1/344. One pair seen in the Naukluft River valley in November 1986 (H. De-dekind)

*Motacilla capensis*. Cape Wagtail; Gewone Kwikkie 713

Breeding resident. Common 152/344. Frequently seen foraging beside streams and pools throughout the

mountains. Also common in gardens, which accounts for most of the records (9/116) from the plains. Breeding has been recorded between August and April.

*Anthus similis*. Longbilled Pipit (Nicholson's Pipit); Nicholsonse Koester 717

(Resident). (Occasional) 2/344. Collected in the mountains in 1938 (Hoesch & Niethammer 1940). Although pipits are frequently observed on the plateau, there are only two records, probably due to the difficulty in differentiating this from other species of pipit.

*Anthus trivialis*. Tree Pipit; Boomkoester 722

Palearctic migrant. Vagrant 3/183. The three records are all of single birds seen feeding in gardens within the park. At Elim observed regularly from early December to 5 January 1982 (P. Roux). At Naukluft Tree Pipits were seen in December 1981 and again in September 1982 (H.J.B.).

*Lanius minor*. Lesser Grey Shrike; Gryslaksmen 731

Palearctic migrant. Rare 16/208. Recorded between November and April, with 75% of records from the mountains but also recorded from the Dieprivier and Oorwinning areas.

*Lanius collaris*. Fiscal Shrike; Fiskaallaksmen 732

Breeding resident. Common 172/344. Found throughout the region, both in the mountains and on the plains. Breeding has been recorded between November and March.

*Lanius collurio*. Redbacked Shrike; Rooiruglaksmen 733

Palearctic migrant. Rare 14/140. All records are from the mountains with 13 from the Arbeid Adelt area and one record from Naukluft. Recorded between November and April.

*Laniarius atrococcineus*. Crimsonbreasted Shrike; Rooiborslaksmen 739

Breeding resident. Common in the Arbeid Adelt area 51/96. Rare elsewhere in the mountains 12/132. Breeding has been recorded at Zais between December and January.

*Nilaus afer*. Brubru; Bontroklaksmen 741

(Breeding) resident. Common in the mountains 87/228. Occurs in well-vegetated valleys throughout. Adults were seen feeding a fully-fledged juvenile at Naukluft in March 1983 (H.J.B.).

*Tchagra australis*. Threestreaked Tchagra; Rooivlerktjagra 743

Vagrant 3/344. Recorded from scattered localities throughout the region; Tsams Oŝt, the Arbeid Adelt and Oorwinning areas.

*Telophorus zeylonus*. Bokmakierie; Bokmakierie 746

Breeding resident. Common in mountains 128/228, rare on plains 16/116. Found in scrubby vegetation throughout the mountains; in valleys, on hillsides and on the plateau. Infrequently recorded on the plains. Nesting has been recorded in December, January and June and juveniles have been seen in August and November.

*Lanioturdus torquatus*. Whitetailed Shrike; Kortstertlaksman 752

Breeding resident. Common 105/228. Occurs only in the mountains where it is found in valleys and on hillsides. Breeding has been recorded between November and April. The Naukluft Mountains form the southern limit of the range of this species (Maclean 1985; Winterbottom 1971).

*Creatophora cinerea*. Wattled Starling; Lel-spreeu 760

Nomad. Vagrant 5/344. Recorded from the garden at Zais during August 1984, January and February 1985, and January and February 1986 (P.A.B.), and from Sesriem (B. Holton).

*Cinnyricinclus leucogaster*. Plumcoloured Starling; Witborsspreu 761

Breeding intra-African migrant. Common 50/140. Found in valleys within the mountains and in the Tsondab River, with one record from the Oorwinning area. Recorded mainly between October and April with two late records in May. Breeding was recorded during March 1983 when a nest hole containing chicks was found in a *Moringa ovalifolia* at Naukluft (H.J.B.).

*Lamprotornis nitens*. Glossy Starling; Klein-glansspreeu 764

Resident. Common in Tsondab River areas 61/146, with three records from the Dieprivier area and two from Oorwinning.

*Onychognathus naboroupe*. Palewinged Starling; Bleekvlerkspreu 770

Resident. Common 199/228 in mountains and 56/116 on the plains. An abundant species, especially in the mountains where it occurs on rocky hillsides and on the plateau. On the plains found near rocky outcrops, such as those near Elim.

*Nectarinia fusca*. Dusky Sunbird; Namawkasuikerbekkie 788

Breeding resident. Common 193/344. Found throughout the mountains, and on the plains wherever there is suitable vegetation. Breeding has been recorded in December (P.A.B.).

*Nectarinia senegalensis*. Scarlet-chested Sunbird; Rooikeelsuikerbekkie 791

Breeding resident. Occasional in Arbeid Adelt area 54/96, rare elsewhere in the mountains 16/132. Most records are from Zais, where it breeds regularly; with infrequent records from the Büllsport area and Naukluft. Breeding has been recorded between November and February.

*Zosterops pallidus*. Cape White-eye; Kaapse Glasogie (Groenglasogie) 796

Vagrant 1/344. One record from the Oorwinning area in September 1986 (C. Vinjevoel). In June 1987 three birds were seen in the garden at Zais (M. Bridgeford).

*Bubalornis niger*. Redbilled Buffalo Weaver; Buffelwewer 798

Vagrant 2/344. One record from Zais in November 1980 (J.C. Karstens), and from the Büllsport area in June 1982.

*Plocepasser mahali*. Whitebrowed Sparrow-weaver; Koringvoël 799

(Breeding) resident. Occasional 49/228. Occurs on the plains to the south and east of the mountains, and on the plateau. Nestbuilding has been recorded in February and April.

*Philetairus socius*. Sociable Weaver; Versamelvoël (Familievoël) 800

Breeding resident. Common 198/344. Occurs throughout the area, in valleys, on the plateau, and on the plains wherever trees suitable for nestbuilding occur. Due to the closed nature of the nest there are few breeding records, but breeding has been recorded in May and June.

*Passer domesticus*. House Sparrow; Huis-mossie 801

Vagrant 3/344. Recorded at Zais in August and November 1986, then again in December 1986 near a nest box, but left the area without breeding (P.A.B.).

*Passer motitensis*. Great Sparrow; Groot-mossie 802

Breeding resident. Occasional 66/228 in mountains, rare elsewhere 7/116. The most commonly recorded sparrow in the mountain area, where it occurs in valleys. Infrequent records from the western plains. Nestbuilding has been recorded during December and February. Similar to the findings of Winterbottom (1964) and Macdonald and Nott (1987), this sparrow has become tame in the area, and feeds regularly with

domestic fowls at Zais. This is contrary to the belief that it is shy and not adapted to human settlements (Maclean 1985).

*Passer melanurus*. Cape Sparrow; Gewone Mossie 803

Breeding resident. Common on plains 55/116, occasional elsewhere 31/228. Most commonly occurring sparrow on the western plains, found particularly around inhabited areas like Sukses and Sesriem. Infrequently recorded in the lower reaches of the mountains, at Die Valle, Büllsport and Naukluft. Breeding has been recorded in September and April to June.

*Passer griseus*. Greyheaded Sparrow; Gryskopmossie 804

Breeding resident. Occasional in Arbeid Adelt area 48/96. Largely confined to the area around Zais where it breeds, with one record from Ubusis. Breeding has been recorded between December and May.

*Sporopipes squamifrons*. Scalyfeathered Finch; Baardmannetje 806

Breeding (nomadic) resident. Occasional on plains 26/116, rare elsewhere 10/228. Found mainly on the plains to the west, with infrequent records from the rest of the area. Breeding was recorded at Sesriem in June 1987; a nest containing two chicks was found and three more nests were under construction.

*Ploceus rubiginosus*. Chestnut Weaver; Bruinwewer 812

Status uncertain. 5/344. Infrequently recorded in the park, but the appearance of this species may depend on there being good rainfall in the area. Collected at Blasskranz in 1950, apparently a year of good rains as grass was 'waist high' on the plains at the foot of the mountains (Macdonald 1957). 'A few' were recorded at Naukluft in October 1974 (R. Jensen), a year of exceptionally high rainfall (Fig. 2). Despite increased atlassing in the area from 1980, this species was not recorded again until 1986, when there were good rains following an extended drought. In 1986 Chestnut Weavers were recorded at Zais during February (P.A.B.) and at Naukluft during March, April and July (G. Meaker).

*Ploceus velatus*. Masked Weaver; Swartkeelgeelvink 814

Breeding resident. Common in mountains 130/228, occasional on plains 24/116. Occurs in valleys throughout the mountains, particularly near open water. Nestbuilding has been recorded between August and April, with chicks present between October and March. Recorded as host to a Diederik Cuckoo in January 1969 (J. Dixon).

*Ploceus intermedius*. Lesser Masked Weaver; Kleingeelvink 815

Vagrant 2/344. Two unconfirmed reports from Zais, in November 1980 and August 1986. A pair was recorded breeding at Zais in December 1987 (P.A.B.).

*Quelea quelea*. Redbilled Quelea. Rooibekkwelea 821

Vagrant 1/344. A flock of about 40 birds was seen at Zais in August 1986. Recorded again in June, July and August, 1987 at Zais.

*Euplectes orix*. Red Bishop; Rooivink 824

Vagrant. Collected at Büllsport in November 1938 (Hoesch & Niethammer 1940).

*Pytilia melba*. Melba Finch; Gewone Melba (Melbasysie) 834

Vagrant 4/228. Recorded from scattered localities within the mountains; at Naukluft in October 1974, an unspecified area in February 1979, Zais in November 1980 and Büllsport in December 1980. Has recently been seen near Arbeid Adelt house in May 1987 (R. Le Roux).

*Uraeginthus granatinus*. Violeteared Waxbill; Koningblousysie 845

Breeding resident. Rare 28/228. Occurs in well-vegetated areas within the mountains. Largely absent during the recent drought, with only four records between 1981-84, and 21 in the following two years. Breeding was recorded at Zais in May 1987 (P.A.B.).

*Estrilda astrild*. Common Waxbill; Rooibeksysie (Rooibekkie) 846

Resident. Occasional 73/228. Found in riverine valleys throughout the mountains.

*Estrilda erythronotos*. Blackcheeked Waxbill; Swartwangsysie 847

Vagrant 4/344. Recorded from an unspecified area of the mountains in February 1979; at Zais in November 1979, November 1980 and July 1987; and in the Büllsport area in December 1980.

*Amadina erythrocephala*. Redheaded Finch; Rooikopvink 856

Breeding nomad. Occasional 55/344. Occurs on the plains throughout the area. Numbers may have increased recently following good rains in 1985-86: Between 1980 and 1985 Redheaded Finches were recorded on 12% of cards compared to 36% in 1986. There are three breeding records; in April 1985, and March and April 1986, with Masked Weaver nests used in at least two cases.

*Vidua macroura*. Pintailed Whydah; Koningrooibekkie (Koningweeduweetjie) 860

Vagrant 8/228. Recorded in the Lemoenputs valley in February 1979, seven records from Zais and Naukluft in 1982, and seen again at Zais in 1987. This is a considerable extension to the range shown by Maclean (1985).

*Vidua regia*. Shaftailed Whydah; Pylstert-rooibekkie (Pylstertweeduweetjie) 861

(Resident). Rare 17/228. All records are from Zais and Naukluft, mainly in the summer. This is probably due to the difficulty in identifying birds in non-breeding plumage, rather than to seasonal movements.

*Vidua paradisea*. (Paradise Whydah; Gewone Paradysvink 862

Vagrant. First recorded in the area at Zais in February 1987, when a male in partial breeding plumage was seen. Two males and two females were seen at Zais from December 1987 to January 1988 when they left the area, following rains in the east (P.A.B.).

*Serinus atrogularis*. Blackthroated Canary; Bergkanarie 870

(Breeding) resident. Occasional 55/228. Found mainly in the mountains where it occurs on hillsides and on the plateau. One record from the Oorwinning area. One fully-fledged young was seen at Naukluft in January 1983 (H.J.B.) and a nest was built at Zais in March 1987, but no eggs were laid (P.A.B.).

*Serinus alario*. Blackheaded Canary; Swartkopkanarie 876

(Breeding) resident. Rare 14/228. Occurs on hillsides in the mountains, occasionally visiting gardens. One record from the Oorwinning area. Adults were seen feeding a fully-fledged young at Ubusis in April 1985.

*Serinus flaviventris*. Yellow Canary; Geelkanarie 878

Vagrant 7/344. Recorded from scattered localities throughout the region; Sesriem, Naukluft, Büllsport and the Oorwinning area.

*Serinus albogularis*. Whitethroated Canary; Witkeelkanarie 879

Breeding resident. Occasional in mountains 79/228, rare elsewhere 3/116. Mainly found on rocky hillsides. Breeding was recorded at Naukluft in November 1938 (Hoesch & Niethammer 1940).

*Emberiza capensis*. Cape Bunting; Rooivlerkstreekoppie 885

Resident. Occasional 28/228. Occurs in riverine valleys throughout the mountains.

*Emberiza tahapisi*. Rock Bunting; Klipstreekoppie 886

Vagrant 4/228. Three records from valleys in the Naukluft area, and one from an unspecified area of the mountains. Recently recorded at Zais in December 1987 and January 1988.

*Emberiza impetuani*. Larklike Bunting; Vaalstreekoppie 887

Breeding nomad. Occasional-common 100/344. Occurs in valleys within the mountains, and on the plains when conditions are suitable. Numbers appear to have increased recently following good rains in 1985-86. From 1980-84 Larklike Buntings were recorded on 9% on cards compared to 56% in 1985-86. Breeding was recorded in March and April 1985.

## 5 SUMMARY OF RESULTS

Two hundred and four species have been recorded in the six 1/4° squares which encompass the Naukluft Mountains, with an additional 11 unconfirmed species. One species, the Cape Vulture, probably occurred in the area when the breeding colony at Rostock was still in existence, but is now considered to be extinct in the park (C. Brown, pers. comm.). Of the 204 species, 98 are believed to be resident and breeding has been proved for 53 of these.

Nineteen species were termed nomads. Although in some cases a species was recorded in all months of the year, it could be expected from their habits (Maclean 1985) and variability in frequency of records (e.g. Larklike Bunting) that movements into and out of the area occur according to prevailing conditions. Seven nomadic species have been recorded breeding within the area.

A total of 35 migratory species have been recorded of which 17 were Palaearctic and 15 were intra-African migrants, the origin of the remaining 3 being unclear (Maclean 1985). At least 4 of the intra-African migrants have bred in the area.

Two species, the Spotted Dikkop and the Olive Thrush, are probably seasonal visitors, moving into the area in the winter months, but more information is needed before definite conclusions can be made.

As would be expected, the number of species recorded per month was greatest during the summer, when the resident population was augmented by migratory species and vagrants attracted by rainfilled pans and dams (Fig. 9).

Based on the available data it is apparent that the number of species occurring in the area is affected by the amount of rainfall. From 1983-86 the number of field cards submitted remained fairly constant with an average of 67 cards submitted per year; the number of species recorded per year, however, rose from a mini-

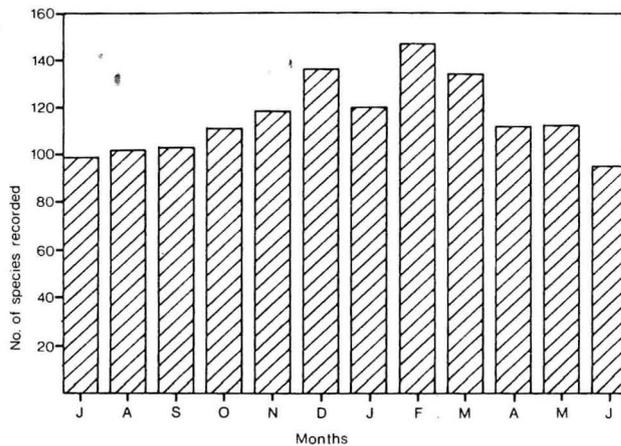


FIGURE 9: The total number of bird species recorded in the Naukluft region per month.

116 in 1984, possibly because of low rainfall in the previous three years, to 152 in 1986 following good rains in 1985 and 1986, an increase of 31%.

Although much information has been collected on the birds of the Naukluft region, there is still much that is unknown, especially with respect to breeding records. As can be seen from the species list, even the most commonly recorded species, the Palewinged Starling, has not yet been recorded as breeding in the area. This paper presents a summary of the information collected to date and it is hoped that it will encourage the collection of further data in the future.

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