



Vincent Parker

# THE ATLAS OF THE BIRDS OF SUL DO SAVE, SOUTHERN MOZAMBIQUE

In 1985 I set out to compile the Swaziland bird atlas (Parker 1994) motivated by little more than the call of the wild. While the ornithological exploration of southern Mozambique in the aftermath of the civil conflict provided an even greater challenge to the adventurous spirit, this present work was motivated principally by more sober concerns.

In the light of growing global concern for the conservation of wildlife, it is increasingly important that conservation initiatives be based on sound knowledge of the organisms to be conserved and the threats faced by them. The use of birds as indicators of threatened habitats is widely accepted (e.g. Harrison *et al.* 1997a, p. xxvii). This work therefore aims to set out information which is vital to the planning of effective conservation strategies in the region covered.

Vincent Parker

**Front and back cover:** Oliveheaded Weaver by Philip Clancey. Reproduced with permission from the Durban Natural Science Museum.



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# **Vincent Parker**







Published by the Avian Demography Unit, Cape Town, and the Endangered Wildlife Trust, Johannesburg

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First published 1999

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**Cover artwork:** Oliveheaded Weaver by Dr P.A. Clancey, reproduced with permission from the Durban Natural Science Museum

Title page artwork: Neergard's Sunbird by Dr Augusto Cabral

Photographs: J. Alves, P. Dutton, J. Ledger, V. Parker, B. Ryan

Maps and graphics: R.A. Navarro

**DTP and production:** F.A. Stoch

Reproduction and imaging: Hirt & Carter, PO Box 6488, Roggebaai, 8012, South Africa

Printing and binding: Ince Cape, PO Box 1749, Cape Town, 8000, South Africa

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**ISBN:** 0-620-24266-3

#### **Recommended citation format**

Parker, V. 1999. The Atlas of the Birds of Sul do Save, Southern Mozambique. Avian Demography Unit and Endangered Wildlife Trust, Cape Town and Johannesburg.

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Birds are one of the foremost indicators of environmental health and it is only through the study of bird species and their habitats that their conservation can be assured. A bird atlas provides basic information on both species and habitat that is essential in the planning of conservation projects. This first Mozambican bird atlas is a welcome addition and an important link to the series of southern African bird atlases, which already provide invaluable information on the subcontinent's rich birdlife.

This bird atlas, the result of three years of collaborative efforts between universities, governments, NGOs, the community-at-large and Sappi, is a unique source of information on the distribution and status of birds in southern Mozambique, south of the Save River. With the increasing human pressure on this part of Mozambique, this publication can only enhance people's appreciation of the rich avian diversity for which the region is renowned.

Sappi is committed to sound environmental management and environmental education, including the sponsorship of a wide range of tree, wild-flower and bird books, as well as support for various lecture and research posts at a number of universities in South Africa. Sappi is proud to have been associated with the research and publication of this worthwhile bird atlas.



Terns at dusk, Santa Carolina Island.

P. Dutton

# The Endangered Wildlife Trust (EWT) – Fórum Natureza em Perigo (FNP) – in Mozambique

The EWT started its Mozambique operations in 1989 in the Bazaruto Archipelago and later in the Maputo Elephant Reserve by supporting the National Directorate of Forestry and Wildlife (DNFFB) with the rehabilitation of these areas. Training, employment of game guards and logistical support were its main roles in these early stages. The EWT has also been involved in the restoration of the Maputo Zoo.

The EWT (or FNP as it is locally known) was officially registered as a Non-Government Organization in Mozambique in 1995, and opened a regional office in downtown Maputo. The Regional Director, António Reina, has been coordinating our activities ever since.

Our main activities revolve around community-based natural resource management, with particular emphasis on employing and training individuals as game guards within rural areas where biodiversity conservation and sustainable natural resource management is imperative. Catuane, a community on the northern border of Ndumu Game Reserve, has such a programme which functions as a law enforcement and educational body to safeguard the area's fauna and flora and ensure a conservation



P. Dutton

Bazaruto Island.







J. Ledger

future for the zone. The FNP inaugurated the Clube Ornitológico de Moçambique which acts as the educational arm to the Mozambique Bird Atlas Project and has played an important role in promoting birdwatching and environmental awareness amongst the young people of Maputo.

The FNP has a voice in various committees and forums dealing with environmental issues arising from current industrial expansion. We represent the Peace Parks Foundation in Mozambique, and are involved in the planning stage of the Kruger Park–Gaza and Maputaland Trans-Frontier Conservation Areas.

The FNP is steadily expanding its activities. Its responsibilities are great because of its position in being one of the few wildlife NGOs in Mozambique, and we expect to be called into all corners of Mozambique in the future.

António Reina, Regional Director, Maputo and José Alves, Mozambique Desk, Johannesburg







Community guards, Catuane.

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# Clube Ornitológico de Moçambique

During 1995, the Mozambique Bird Atlas Project conducted a number of talks on bird identification at the Universidade Eduardo Mondlane in Maputo, in order to promote public participation in the Atlas Project. As a result of these talks, a group of staff and students of the Department of Biological Sciences at the University got together with representatives of the Maputo branch of the Endangered Wildlife Trust (Fórum Natureza em Perigo) to form a bird club, which became known as Clube Ornitológico de Moçambique. Carlos Bento was elected the first chairman, and Almeida Guissamulo vice-chairman. They have continued in office until the present.

The Clube was officially launched at a function at the Polana Hotel on 9 March 1996. The aims of the Clube are to facilitate the sharing of knowledge about the birdlife of Mozambique, and to raise public awareness of the birdlife and of the need for the conservation of biological diversity. In order to further these aims, the Clube collaborates with government institutions, including the National Directorate of Forestry and Wildlife (DNFFB) and the Ministry for Environmental Affairs (MICOA), and with foreign institutions, including BirdLife South Africa and BirdLife International.

The headquarters of the Clube are at the Natural History Museum, Maputo. The Museum has offered the use of its facilities to the Clube, and future meetings will be held in the new auditorium. The Clube plans to continue offering talks and audiovisual presentations on birdwatching, and birdwatching outings



around Maputo to the public. It is preparing a similar program of presentations for schools in Maputo, and is planning to offer training in birdwatching skills to community guards involved in conservation initiatives.

**Top:** Young birders who attended the Clube's World Birdwatch Day activities in October 1997. **Above right:** Chairman of the Clube, Carlos Bento (right), and vice-chairman, Almeida Guissamulo.

# The Natural History Museum, Maputo

The Natural History Museum was founded on 9 July 1913. It was then known as the Provincial Museum and was affiliated to the now defunct Escola Cinco de Outubro. In January 1959, it was transferred to the Instituto de Investigação Científica de Moçambique. After independence in 1976, it was transferred to the Universidade Eduardo Mondlane, and remains under the administration of the University to the present.

The Museum has produced checklists of the birds, reptiles, molluscs of Mozambique and an atlas of butterflies. More than 200 scientific papers have been published by its staff. The Museum employs five researchers, including the present director, Dr Augusto Cabral.

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# **Sponsors**

Fieldwork was sponsored by Sappi, the Endangered Wildlife Trust, Mabor Tyres, BP Mozambique, Richards Bay Minerals, BirdLife South Africa and Wetlands International.

Provision of field cards, data capture, storage and processing were sponsored and carried out by the Avian Demography Unit, University of Cape Town.

The use and maintenance of a vehicle was provided by Land Rover South Africa for two years, and for two months in the final stages by Stuart Bromfield.

Publication was sponsored by Sappi, who donated the paper, the John Voelcker Bird Book Foundation, who sponsored the lithography, and BirdLife South Africa.



Trumpeter Hornbill.

B. Ryan

# Foreword

Mozambique, situated on the east coast of southern Africa, has an area of 800 000 km<sup>2</sup> and a coastline of 2500 km adjoining the Indian Ocean. Mozambique also has a large and diverse wildlife.

Owing to the civil war, the country's birds have not until now been studied very systematically but nevertheless more than 700 species have been recorded regularly, with a further 45 vagrants on record.

In the light of the effects of recent ecological changes, our current knowledge of Mozambique's rare, vulnerable and endangered birds is insufficient.

For the wetland birds, the most serious problem is the fact that riverine and alluvial habitats have been under very heavy human pressure. The floodplain grasslands of the Zambezi Delta, the Gorongoza National Park and Maputo Reserve are being degraded by hydrological changes related to exploitation of the rivers. Severe droughts are aggravating the situation, drying up large areas of Gaza, Maputo, Manica, Inhambane and Tete provinces.

The main danger to forest birds is the excessive clearance of forests for firewood.

I am certain that this new atlas of the birds of southern Mozambique will be of great value in verifying and monitoring these ecological changes and their effects on birdlife, for Mozambique is endowed with abundant bird and wildlife resources that hold promise for sensitive and sustainable development.

Deacum

Dr Augusto Cabral Natural History Museum, Maputo

# **Prólogo**

Moçambique, situado na costa oriental da África austral, tem uma superfície de 800 000 quilómetros quadrados e uma costa de 2500 km ao longo do Oceano Índico. Moçambique possui também uma fauna selvagem abundante e diversa.

Devido à guerra civil, a avifauna do país não tinha, até hoje, sido estudada de forma muito sistemática. Apesar disso, mais de 700 espécies foram registadas regularmente, às quais se acrescentam 45 acidentais.

Devido aos efeitos das mudanças ecológicas recentes, o nosso conhecimento sobre as espécies de aves raras, vulneráveis e em perigo em Moçambique é insuficiente.

Para as aves aquáticas, o problema mais sério reside na enorme pressão que os habitats ribeirinhos e aluviais têm sofrido. As planícies de inundação do Delta do Zambezi, o Parque Nacional da Gorongoza e a Reserva Especial do Maputo estão sendo degradados pelas mudanças hidrológicas relacionadas com a exploração dos rios. As secas severas estão a agravar a situação, afectando extensas áreas das províncias de Gaza, Maputo, Manica, Inhambane e Tete.

A maior ameaça para as aves florestais é o desbravamento excessivo das florestas para a produção de combustível vegetal.

Estou certo que este novo atlas das aves do sul de Moçambique será de grande valor na verificação e monitorização destas mudanças ecológicas e dos seus efeitos na avifauna, pois Moçambique possui recursos abundantes de aves e fauna selvagem, que prometem um desenvolvimento sensível e sustentável.

Deacut

Dr Augusto Cabral Museu de História Natural, Maputo

# Acknowledgements

This project could not have been successfully completed without the support and assistance of the following people: David Allan, José Alves, Carlos Bento, Mark Botha, Chris Cloete, Chris Davies, Cassie de Bruin, Rod de Vletter, Dave and Kathy Ducasse, Fred de Boer, Suzanne Fiebig, Pat Fletcher, Dulcilio Francesco, the Gamele family, Peter John Gosnell, Johan Gouws, Paul and Liz Hallows, Dan Nuttall, Don Peterson, Mike and Penny Rees, António Reina, Peregrine Rowse, Paulo Tomás, Ben van Schalkwyk, Philip van Schalkwyk, Paul and Annie Waterhouse, Hardy Wilson and John Wilson.

Fieldcards were submitted by the following observers (in addition to the author): D. Allan, J. Alves, J. Anderson, A. Beasley, C. Bento, M. Botha, G. Branch, J. Burlison, D. Butchart, D. Christie, C. Coid, C. Coster, F. de Boer, P. Deramaix, K. Duboil, E. Eksteen, N. Formsby, J. Gouws, C. Groenendijk, P. Hockey, E. Holland, G. Holtshausen, P. Hitchins, P. and U. Kohler, M. Logan, C. McGeorge, R. McQueen, S. Nieuwoudt, P. Nilsson, W. Odendaal, F. Peacock, M. Rees, P. Rowse, R. Searle, P. Silvernagl, D. Taylor and O. Wirminghaus.

Data capture, storage and processing and the design and printing of fieldcards were carried out by the Avian Demography Unit, University of Cape Town.

Portuguese species names were developed by Martim Pinheiro de Melo (Percy FitzPatrick Institute, University of Cape Town) together with Carlos Bento, Fred de Boer, Almeida Guissamulo (Universidade Eduardo Mondlane), and in consultation with Gonçalo Elias, Alexandre Vaz and Luis Gordinho.

The text was referred by David Allan, Durban Natural History Museum, and earlier drafts were commented on by Les Underhill, Avian Demography Unit, University of Cape Town.

Permission to use map data from neighbouring states was granted by the Ornithological Association of Zimbabwe, the Avian Demography Unit and the Conservation Trust of Swaziland.

# Introduction

The Atlas of the Birds of Sul do Save, Southern Mozambique, describes the geographical distribution, abundance and seasonality of all bird species which were observed in Mozambique south of the Save River during the period 1980 to 1998. It is an extension of *The Atlas of the Birds of Southern Africa* (Harrison *et al.* 1997a,b) which covered the states of Botswana, Lesotho, Namibia, South Africa, Swaziland and Zimbabwe. Mozambique was excluded from that publication because the civil war made fieldwork impossible at the time.

This study provides the essential information on which initiatives to conserve the avifauna of the region should be based. It is intended furthermore to serve as a prototype for an adequate description of the status of the avifauna of an African state with few experienced observers and minimal infrastructure in a short space of time.

The publication of this atlas marks the completion of the first stage of the Mozambique Bird Atlas Project. The next stage, the preparation of an atlas of the birds of central Mozambique is now under way, and the project will culminate in the production of an atlas of the birds of the whole of Mozambique.

At the commencement of this project, Mozambique represented the southern African state which was clearly the least well known ornithologically. Previous accounts dealing with bird distributions have been based on observations which were made at a limited number of the more accessible localities and moreover tended to be concentrated in the winter months (see e.g. Clancey 1996). For an account of the distribution of bird species which relies principally on sight records and vocal recognition to be credible, all records must be subjected to careful vetting. Previously published accounts for southern Mozambique unfortunately included a number of species whose presence in the region was based on sight records which appear likely to have been misidentifications. The criteria adopted in reassessing these records are that, not only are the records inconsistent with current knowledge (including the results of this survey) of the range and habitat preference of the species concerned, but that a number of such records originated from each of a handful of sources whose accounts have omitted a number of species which do occur regularly at the localities concerned. Clancey (1996) expressed reservations about some records by these observers, but accepted others which are now added to the list of those considered dubious. The species concerned are discussed in Appendix 2. Other species which were not observed during this study but which are believed to occur in the region on the basis of earlier accounts are discussed in Appendix 1.

In recent times, the availability of a great wealth of material relating to bird identification in the form of improved fieldguides and audio and video recordings, as well as improved optical equipment, has made it possible to place greater reliance on sight records and call recognition (whether by amateurs or by professionals) than was formerly the case.

The literature dealing with bird distributions in this region previous to 1970 and distribution records based on museum specimens were summarised by Clancey (1971). *The Birds of*  Southern Mozambique (Clancey 1996) is a reprint of Clancey's earlier work, incorporating taxonomic revisions. Subsequent accounts (e.g. Tello 1973; Herdam 1994; De Boer & Bento 1999) have been referred to in this text where appropriate. A bird checklist for Mozambique has been compiled by Dowsett & Dowsett-Lemaire (1993), but is unsatisfactory in that it includes species which have not been reported reliably or at all in Mozambique (e.g. Greater Kestrel *Falco rupicoloides,* Whitefaced Storm Petrel *Pelagodroma marina,* Olive Woodpecker *Mesopicus griseocephalus* and Black Crow *Corvus capensis*).

The account by Clancey (1996) included a number of species which were not actually observed within Mozambique but which were assumed to occur on the basis of their occurrence in neighbouring territories. These are also discussed in Appendix 2. It should be noted that in particular the western boundary of southern Mozambique with Swaziland and South Africa coincides with the ridge of the Libombo range, which constitutes a significant discontinuity in habitats.

A bird atlas is never complete, and further exploration in this region is bound to yield new distributional records. On the other hand, this atlas is presented at this stage in the belief that such records will not be too easily obtained. Although species totals for many grid cells appear relatively low, this is at least partly due to low habitat diversity. This author found that whereas checklists of over 100 species could easily be compiled in a morning in neighbouring Swaziland, a full day or more was required to find as many as 50 species in parts of this region.

An atlas for the whole of Mozambique which will include any new observations from Sul do Save is planned for publication at the completion of this project. It is hoped that a greater number of volunteers will participate in the remaining stages of the Mozambique Bird Atlas Project, which involve coverage of central and northern Mozambique, as well as updating the coverage of southern Mozambique. For further information, potential contributors should contact:

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Arid grassland Brachystegia woodland Coastal plain Flootplain Liombo Mountains Moist woodland Southern arid woodland Southern arid woodland Southern arid woodland

Figure 2. Vegetation types.

Figure 1. Topography.

#### TOPOGRAPHY AND VEGETATION

The Libombo Mountain range is a rhyolite ridge which forms the western boundary with Swaziland and South Africa. It is punctuated by the gorges of the Usutu/Maputo, Inkomati, Olifants and Shingwedzi rivers. The range is highest south of the Inkomati River where its peaks rise to over 500 m. North of the Inkomati, it rises to no more than 200 m. The vegetation on the Libombo range is diverse and includes *Acacia* savanna, ironwood *Androstachys johnsonii* forests, riparian forest, small pockets of Afromontane forest in the south and Mopane woodland in the north.

The rest of southern Mozambique consists of a flat plain, interrupted only by the valleys of the Maputo, Inkomati and Limpopo rivers, and bounded in the north by the Save River. An extensive floodplain is associated with the mouths of each of these rivers.

The vegetation of the plain south of the Inkomati River consists of *Acacia* woodland over the western two-thirds, while the coastal region consists of a mosaic of sour grasslands, dense mixed woodlands and tall forests, in which *Albizia, Afzelia* and *Sclerocarya* species are dominant. Between the Inkomati and Limpopo rivers, *Acacia* woodlands occur to the west, while towards the coast broadleaved woodlands and forest patches dominated by *Afzelia quanzensis* occur, and close to the littoral a narrow strip of moist grassland.

North of the Limpopo River, a broad strip of arid woodland occurs in the west. These woodlands include Mopane and *Acacia* woodlands as well as broadleaved woodlands in which *Combretum* and *Terminalia* species are prominent and are interspersed with small patches of Lebombo Ironwood *Androstachys johnsonii* forest. The arid woodlands give way to an area of grassland overlapping the southeastern part of the Banhine National Park (2233CC), merging into *Acacia* savanna to the east.

From the centre of the region towards the littoral is a broad band of moist woodlands, including *Julbernadia* and mixed broadleaved woodlands. Tall *Brachystegia spiciformis* woodlands occur only in a small area near Panda (2434BA). Ironwood forests intrude into the moist woodlands from the west and one such forest near Mawayela (2433BD) is possibly the largest extant stand of this tree species, which is a nearendemic to Sul do Save.

The coastal strip north of the Limpopo River has been densely populated and cultivated since the colonial period. Consequently, most of the natural vegetation has been replaced by plantations of coconut, cashew, mango and citrus trees, and grain fields. The surviving patches of natural woodland and forest are dominated by *Afzelia quanzensis*.

#### CLIMATE

The region is warm and frost free with summer rainfall. Rainfall is highest at the coast, with over 1200 mm/year recorded at places, and decreases inland, with less than 300 mm/year recorded at Pafuri (2231AD), where the Limpopo River enters Mozambique (see Figure 3).

#### METHODS AND AN OVERVIEW OF RESULTS

As far as was appropriate, the methodology of *The Atlas of Southern African Birds* (Harrison *et al.* 1997a,b) was adhered to.

#### Quarter-degree grid cells

Observations of bird species were recorded on a quarterdegree grid, where each grid cell comprises a quarter degree (15') of latitude by a quarter degree of longitude. The use of a hand-held GPS (global positioning system) unit was found to be the most convenient way for an observer to determine his position relative to the grid.

A unique name consisting of four digits followed by two letters is assigned to each grid cell. The four digits comprise



Moist grassland, coastal plain, Ponta Douro.



Slash-and-burn agriculture, coastal region.



Coastal forest, near Macia.



Limpopo River floodplain.



Moist woodlands (mixed).



Arid grassland, Banhine.



Arid woodlands (Mopane).



Brachystegia woodland, near Panda.



Intertidal zone, Vilanculos.





Lebombo Ironwood Androstachys johnsonii forest.

Cape Vulture colony, Libombo Mountains, near Goba.



Figure 3. Climate.

the latitude (in degrees) followed by longitude of the cell, and its position within a degree cell is uniquely defined by the two letters as illustrated in Figure 4.

Data were accumulated on checklists on which observers marked all species which were identified on each visit to a grid cell.

#### Coverage

The goals set for coverage were that each grid cell should be visited in each of three seasons, namely early summer (September to December), late summer (January to April) and winter (May to August). Of the 253 grid cells in the region, eight were not visited at all because of difficulties of access. A total of 1778 checklists were accumulated during the period 1980 to



**Figure 4.** Nomenclature of grid cells. Note that 3218 is the degree  $(1^{\circ} \times 1^{\circ})$  grid cell with 32°S 18°E at its northwestern corner, 3218C a half-degree  $(30' \times 30')$  grid cell, and 3218CB a quarter-degree  $(15' \times 15')$  grid cell.

1997. A total of 15 checklists were accumulated between 1980 and 1994 by visitors to coastal localities and islands which were relatively untouched by the armed conflict. The balance of the checklists were accumulated between December 1994 and March 1998. The project obtained the loan of a fourwheel-drive vehicle in October 1995, until which time fieldwork was limited to the more accessible localities. The mean number of checklists per grid cell was seven.

The species totals per grid cell are low by comparison with the neighbouring parts of South Africa and Swaziland (Harrison *et al.* 1997a,b). Although this is partly due to more intensive coverage in those regions, it reflects lower avian species diversity owing to lower habitat diversity (see Figure 5 and the **DISCUSSION** section).

#### Seasonal coverage

Of the 253 grid cells, 96% were visited in early summer, 96% in late summer and 95% in winter. The goal of visiting all of these squares in each of the seasons was not met because the loan of the project vehicle was terminated at the end of December 1997 (see Figure 6).

#### **Reporting rates**

The reporting rate for a species in a grid cell is the proportion of checklists for the cell on which the species is recorded (Harrison & Underhill 1997). The reporting rate is regarded as an indication of the relative density of a species in the area, in the sense that a species is believed to be most numerous in the grid cells where its reporting rates are highest. The justification and limitations of the reporting rate as a measure of



Figure 5. Coverage.

relative density were discussed by Parker (1996) and Harrison & Underhill (1997).

In order for reporting rates to reflect relative densities as accurately as possible, it is desirable that the number of checklists per grid cell be maximised, subject to the conditions outlined below.

A minimum standard of observer effort per checklist

should be adhered to. Checklists reflecting a short period of observation, when combined with checklists representing longer periods, tend to depress the reporting rates for species that were not observed. Hence, checklists generally represented more than one hour of observation and no more than one week. A few checklists representing shorter periods of observation were accepted where they involved observations of unusual species.

Multiple checklists for the same small area on successive days tend to be duplicates of each other. This was avoided in the following way. A new checklist was generated on moving to a new locality within a grid cell, with localities separated by at least 5 km. Typically, three or four independent checklists were generated for each visit to a grid cell over one or two days.

Reporting rates can be affected by differences in the levels of skills of observers. Reporting rates for inconspicuous species tend to be lower in areas visited by the less skilful observers. This problem was minimised in this study because the majority of checklists were compiled by a single observer.

#### Vetting

The credibility of a bird atlas which represents data collected by volunteers with varying levels of bird identification skills depends on careful vetting of the data. Records of species which were considered to be unlikely because they were far removed from the known range of the species, far from suitable habitat, or present at times of the year when they were usually absent, were queried. The observers concerned were invited to submit details of the sighting, including an account of how the bird was identified. Frequently, unusual records were found to have arisen from transcription errors. Accounts submitted in support of unusual records were evaluated principally on the grounds of whether the features by which the bird was identified are in fact diagnostic.

The Rarities Committee of BirdLife South Africa was approached to evaluate records of species which are considered rare within southern Africa, because it was felt that there was insufficient expertise available within Mozambique to evaluate such records.



Figure 6. Seasonal coverage.

Table 1. Number of checklists per grid cell.

Checklists	No. of grid cells	
0	8	
1	0	
2	1	
3	22	
4	35	
5	49	
6	32	
7	34	
8	28	
9	12	
10	11	
11	6	
12	5	
13–47	15	
Total	253	

Table 2.	Number	of	species	recorde	d per	grid	cell.
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Species	No. of grid cells	
0	8	
1–24	0	
25-49	2	
50-74	48	
75–99	101	
100-124	55	
125-149	18	
150-174	13	
175-199	7	
200–223	6	
Total	253	

Table 3. Grid cells with the highest species counts.

Grid cell	Checklists	Species
2632BB	47	223
2632AA	22	220
2533BA	19	211
2632DA	16	208
2632BD	10	206
2532DA	20	200
2331DD	8	191
2432BD	16	188
2532DC	24	185
2632BC	15	185

#### Species new to the region

The following species which had never previously been reported in Mozambique were observed during this survey:

Redfooted Booby Sula sula, Blackbellied Storm Petrel Fregetta tropica, Steppe Eagle Aquila nipalensis, Jackal Buzzard Buteo rufofuscus, Lesser Kestrel Falco naumanni, African Black Oystercatcher Haematopus moquini, Bartailed Godwit Lamosa lapponica, Common Noddy Anous stolidus, Feral Pigeon Columba livia, European Wheatear Oenanthe oenanthe, Marico Flycatcher Malaenornis mariquensis, Indian Myna Acridotheres tristis, Redheaded Finch Amadina erythrocephala and Lesser Frigatebird Fregata ariel.

In addition, the following species which had previously been reported from other regions of Mozambique were recorded south of the Save River for the first time:

Honey Buzzard Pernis apivorus, African Hawk Eagle Hieraaetus spilogaster, Lanner Falcon Falco biarmicus, Hobby Falcon Falco subbuteo, Sooty Falcon Falco concolor, Rednecked Falcon Falco chicquera, Redchested Flufftail Sarothrura rufa, Lesser Gallinule Porphyrula alleni, Roseate Tern Sterna dougallii, Sooty Tern Sterna fuscata, Gullbilled Tern Gelochelidon nilotica, Barred Cuckoo Cercococcyx montanus, Black Coucal Centropus bengalensis, Freckled Nightjar Caprimulgus tristigma, Black Swift Apus barbatus, Angola Pitta Pitta angolensis, Redbreasted Swallow Hirundo semirufa, House Martin Delichon urbica, Yellowbellied Sunbird Nectarinia venusta, Cuckoo Finch Anomalospiza imberbis, East African Swee Estrilda quartinia, Cutthroat Finch Amadina fasciata, Purple Widow Finch Vidua purpurascens and Cabanis's Bunting Emberiza cabanisi.

In all, 29 terrestrial species and nine shore and pelagic species were recorded for the first time in the region. By comparison, 13 terrestrial species and 17 shore and pelagic species were reported previously but were not encountered during this survey (Appendix 1). This reflects the fact that during this survey more attention was paid to the interior and less to the coast in comparison with previous exploration.

This study identified the Oliveheaded Weaver *Ploceus* olivaceiceps as globally threatened although it had not been included in previous Red Data lists (Collar *et al.* 1994). This highlights the necessity for field exploration of the type represented here in order to identify threatened species and determine conservation priorities.

#### Population density estimates

In order to compare the densities of the more common woodland species across woodland types, population density estimates were obtained by a line-transect method (Bibby *et al.* 1992). Each transect was conducted at a different location by walking at a slow pace along a path or track for 15 minutes, covering a distance of c. 750 m. All birds encountered (heard or seen) within c. 20 m either side of the path were counted. Thus each transect represented an area of c. 3 ha. All transect counts were carried out by the author alone. Transect counts were not carried out when weather conditions were unfavourable (extreme heat, windy conditions and rain were avoided). Counts were carried out between 06h30 and 15h30.

It is certain that a number of birds would have remained undetected during the transect counts, so that the densities estimated can be considered as a lower bound for the true densities. This method was selected rather than more rigorous methods in order not to divert time and energy away from the primary atlasing task of determining which species were present within each grid cell.

The methods were too crude to establish accurate measures of absolute densities, but the results reproduced in the species accounts serve to illustrate the preferences of the individual species across woodland types. The density estimates are similar to published estimates from similar habitats elsewhere in southern Africa (Tarboton *et al.* 1987; Harrison *et al.* 1997a,b).

Table 4. Estimated densities of woodland birds in four woodland types.

ACACIA		MIOMBO	
Species	Birds/100 ha	Species	Birds/100 ha
Blue Waxbill	71	White Helmetshrike	45
Rattling Cisticola	50	Blackeyed Bulbul	39
Blackeyed Bulbul	41	Blue Waxbill	37
Redfaced Mousebird	35	Redbilled Helmetshrike	35
Whitebellied Sunbird	31	Forktailed Drongo	25
Cape Turtle Dove	29	Southern Black Tit	25
Whitebrowed Robin	29	Mozambique Batis	21
Greenspotted Dove	29	Puffback	21
Longbilled Crombec	29	Yelloweyed Canary	21
Crested Francolin	27	Blackheaded Oriole	19
Yellowbilled Hornbill	25	Yellowbreasted Apalis	19
Chinspot Batis	25	Whitebellied Sunbird	19
Southern Boubou	23	Greenspotted Dove	18
White Helmetshrike	22	Blackcollared Barbet	16
Sombre Bulbul	21	Whitebrowed Robin	16
Grey Lourie	20	Longbilled Crombec	16
Lilacbreasted Roller	18	Yellowthroated Sparrow	16
Forktailed Drongo	18	Neddicky	12
Terrestrial Bulbul	17	Pallid Flycatcher	12
Acacia Pied Barbet	12	Southern Boubou	11
Striped Kingfisher	11	οτμέρ βρολρί ελνέρ ως	ODI ANDS
Yellowbreasted Apalis	10	OTHER BROADLEAVED WO	ODLANDS
Yelloweyed Canary	10	Species	Birds/100 ha
		Cape Turtle Dove	39
MOPANE		Blackeyed Bulbul	39
		White Helmetshrike	32
Species	Birds/100 ha	Yellowbilled Hornbill	30
Cape Turtle Dove	80	Blue Waxbill	29
Blackeyed Bulbul	30	Greenspotted Dove	26
Whitebellied Sunbird	23	Longbilled Crombec	26
Greenspotted Dove	22	Whitebellied Sunbird	25
Yellowbilled Hornbill	22	Whitebrowed Robin	24
Blackheaded Oriole	22	Forktailed Drongo	16
Redfaced Mousebird	18	Redbilled Woodhoopooe	14
Crested Francolin	17	Crested Francolin	13
Whitebrowed Robin	17	Blackheaded Oriole	13
Blue Waxbill	17	Southern Black Tit	13
Longbilled Crombec	15	Yellowbreasted Apalis	13
Forktailed Drongo	13	Grey Lourie	12
Yelloweyed Canary	13	Southern Boubou	12
Chinspot Batis	13	Puffback	11
Grey Hornbill	10	Rattling Cisticola	10
Southern Boubou	10	Yelloweyed Canary	10

A total of 130 line-transect counts were carried out in *Acacia*, Mopane, miombo (*Brachystegia* and *Julbernadia*) and other broadleaved woodlands (including *Terminalia*, *Combretum*, and mixed woodlands). The estimated densities of the more common bird species in each woodland type are shown in Table 4.

Woodland species whose densities were not estimated may be assumed to have densities of below 5 birds/100 ha.

The extent to which flocking behaviour influences estimated densities requires further investigation. Flocking enhances the conspicuousness of individuals, and the reported densities for helmetshrikes in particular are probably inflated relative to other species.

Overall bird densities estimated for each woodland type are shown in Table 5.

Density estimates varied little according to the time of day,

although transect counts were c. 15% higher in the early morning (Table 6).

The transect counts were carried out between March and December 1997. A decline in estimated densities for nonmigratory species in the late winter (July to August) was

Table 5. Overall bird densities in each woodland type.

Woodland type	No. of transects	Birds/100 ha
Acacia	32	816
Mopane	20	500
Miombo	19	637
Other broadleaved	59	654

observable (Table 7). The peak in estimated densities in September and October coincided with the start of the breeding season for most insectivorous species.

The seasonal fluctuation in observed densities was smaller than expected. A larger breeding season peak followed by a greater decline due to mortality among first-year birds in winter might have been expected. That this was not observed may be due to some if not all of the following factors. Newly fledged birds may have been successful in escaping detection. Secondly, birds were more conspicuous in winter owing to lighter vegetation cover and owing to having to range more widely in search of food and water. Finally, the transect counts were carried out during a period of relatively high rainfall, and a greater fluctuation in densities might be observed under harsher conditions.

In order to obtain the population estimates of woodland species reflected in the species accounts, density estimates for each habitat in which the species occurs were obtained from the transect counts or published estimates of densities from similar habitat elsewhere in southern Africa (e.g. Tarboton *et al.* 1987; Harrison *et al.* 1997a,b) and multiplied by an estimate of the total area of the habitat present in the region.

#### CONSERVATION

#### Protected areas

Conservation efforts in southern Mozambique are presently concentrated in three areas: the Maputo Elephant Reserve (2632B,D), a hunting concession area south of Pafuri (2231D), and the Bazaruto Archipelago (2135CB,D). Plans are being made to create effective conservation areas to include the largely defunct Banhine (2232) and Zinave (2133) Reserves, an area along the western border with the Kruger National Park in South Africa (including the hunting concession), and a proposed coastal reserve at Pomene (2235DC). The current emphasis in conservation planning in Mozambique is the transfrontier parks concept, which involves establishing conservation areas which are contiguous with national parks or nature reserves in neighbouring states. This approach does not necessarily include the most threatened habitat types within Mozambique and potentially diverts resources away from the conservation of such habitats.

The two most threatened avian habitats in southern Mozambique are the tall *Brachystegia* woodlands in the vicinity of Panda (2434BA), the habitat of the Oliveheaded Weaver, and the coastal forests north of the Limpopo River. These coastal forests are distinct from those found south of the Limpopo as the occurrence of species such as the Bluethroated Sunbird, Chestnutfronted Helmetshrike and Livingstone's Flycatcher shows. A substantial proportion of the coastal forests south of the Limpopo River are protected within the Maputo Elephant Reserve.

Table 6. Bird densities by time of day.

Birds/100 ha	No. of transects
767	26
633	13
667	23
633	21
667	17
633	7
633	22
	Birds/100 ha 767 633 667 633 667 633 633

Table 7. Bird densities by month (excluding migratory species).

Months	No. of transects	Birds/100 ha
Mar–Apr	25	708
May–Jun	50	693
Jul–Aug	17	587
Sep-Oct	22	773
Nov-Dec	16	693

The two most threatened habitats enjoy no form of protection at present and are rapidly being depleted as a result of slash-and-burn agriculture. These habitats are not included in any of the existing or proposed conservation areas in southern Mozambique. Tall *Brachystegia* woodland is extremely limited in extent, covering less than 100 000 ha, and the present rate of expansion of cultivation in the area suggests that it could be completely eliminated in the near future. The coastal forests have been under pressure from dense human settlement since colonial times, and their depletion continues into the present. The largest remaining stands occur near Pomene, but lie outside the proposed nature reserve, which includes part of the coastline, reefs and mangrove swamps.

#### Deforestation

The extent of commercial logging in the south is less than in central Mozambique, where large areas are reported to have been devastated (e.g. Ryan 1995). Nevertheless, the Pod Mahogany *Afzelia quadrensis* is much sought after, and the larger specimens are being removed virtually throughout the region. The near-endemic Lebombo Ironwood *Androstachys johnsonii* is also sought after but is difficult to harvest owing to its great density. Exploitation of the ironwood forests is proceeding slowly at present, but could become of grave concern in the future.

Charcoal made from indigenous trees is the major source of energy for residents of Maputo and other large towns. Large areas of woodland are being cleared to satisfy this need. This is most obvious along the main roads, and the charcoal-makers are venturing ever farther into previously untouched areas.

#### **Rivers and floodplains**

All of the major rivers which flow through this region arise in South Africa, Swaziland or Zimbabwe to the west. The floodplains of these rivers represent important habitats for waterbirds. The rivers and floodplains have been severely affected by management and exploitation of the rivers and riverbanks in the neighbouring states. River flows have been reduced by increased offtakes upstream, and cultivation of the banks and overgrazing in the catchment areas have led to increased silting. Changes in conditions and waterbird populations in the floodplains have not been monitored and are likely to have been negative. Prevention of further degradation of the floodplain habitats depends on responsible management of water resources and riverbanks in the neighbouring states.

A survey of wetlands in southern Mozambique in 1972 identified Lake Chuali as a highly significant refuge for waterfowl (Milstein 1984). Subsequently, a weir was built on the Inkomati River below the lake, which has resulted in higher water-levels in the lake. The deeper waters appear to be less favourable for waterfowl, and numbers of waterfowl, especially Fulvous Duck, have been much lower in recent times than those counted by Milstein (1984).

#### Hunting

Milstein (1984) cited sport hunting as a threat to waterfowl in the region in 1972. Since the end of the colonial era, sport hunting of waterfowl appears to have decreased in popularity. On the other hand, hunting for subsistence is widespread and it is not known whether this is having a significant effect on waterfowl populations.

Hunting continues to be a serious threat to a few larger species, especially Ostrich and Kori Bustard. Although smaller gamebirds are widely hunted for food, this is not likely to seriously affect the populations. Fruit-eating birds such as hornbills, pigeons and louries, are regarded as pests by farmers and persecuted to the extent that their populations may be diminished in the main fruit-producing areas.

The extermination of larger mammals from most of southern Mozambique during the years of armed conflict led to a drastic reduction in the numbers of vultures and other carrioneating birds. These birds are now concentrated in areas bordering the Kruger National Park in South Africa, emphasising the importance of that reserve as a refuge for these birds (Parker 1995a). It is anticipated that numbers of these birds will increase if the reintroduction, and protection of larger mammals, to extensive conservation areas goes ahead as planned. At present, surviving larger mammals continue to be hunted relentlessly. In other states within southern Africa, especially Zimbabwe and Botswana, hunting of game animals by resident communities has been limited to sustainable levels as communities involved have become aware of the commercial value of the game (P. Mundy pers. comm.). Development of structures to facilitate commercial utilisation of game will hopefully have similar results in Mozambique. The return of livestock to areas where it is presently absent or sparse may also benefit carrion-eating birds.

#### Seabirds

The conservation of seabirds depends on the conservation of fish and other marine resources. These resources are under pressure from commercial, subsistence and sport fishermen. Strict control in all three areas is necessary to ensure that exploitation is limited to sustainable levels.

#### The cage-bird trade

The keeping of indigenous cage-birds has long been popular in Mozambique (Vincent 1933). Typically, Yelloweyed Canaries are kept in home-made wooden cages. More recently, the capture and export of cage-birds is a growing industry. In 1995, as many as 12 companies were licensed to capture and export cage-birds, while only two companies had been active in this field previously. As many as 10 000 Yelloweyed Canaries, 2000 Lemonbreasted Canaries, 2000 Pinkthroated Twinspots and 800 Grey Waxbills have been exported under licence in some years (M. Rees pers. comm.). Most of the trapping for export is carried out near to Maputo and close to main roads for logistical reasons. As a result, Maputo Province and the southernmost parts of Gaza and Inhambane Provinces are over exploited. In addition, large numbers are captured illegally and either sold locally or smuggled abroad. The Brownheaded Parrot is possibly the most popular among the illegally traded birds. Smaller numbers of this species are traded legally.

The Yelloweyed Canary and Brownheaded Parrot, two of the most commonly captured species, are sufficiently numerous in the wild for the numbers captured at present to be sustainable. However, some of the less common seedeaters particularly sought after by the cage-bird trade are seriously threatened as a result. Although the Lemonbreasted Canary occurs locally in large numbers, the numbers exported are cause for concern because the species is a near endemic. The practice of using a captive calling bird as a decoy to lure birds into traps can lead to local extinction of some species. The Pied Mannikin and Grey Waxbill are particularly vulnerable.

Quotas for export of various species are allocated annually by the Department of Wildlife. However, no censuses have been carried out on which quotas could be based, and for some species the quotas allocated may exceed the population within Mozambique.

Among the quotas reported to CITES for 1997, Table 8 shows quotas which are excessive in relation to the estimated populations in southern Mozambique (CITES 1997).

The annual quota for the Steelblue Widowfinch almost certainly exceeds the total wild population of the species in Mozambique.

There appears to be inadequate control of export consignments. Species for which quotas have not been allocated are regularly exported and Blackthroated Canaries *Serinus altrogularis* and Blackcheeked Waxbills *Estrilda erythronotos*, which do not occur in Mozambique and were probably captured in Zimbabwe, have been exported from Mozambique (pers. obs.).

Among the illegally imported birds confiscated at the Komatipoort Border Post by South African officials between 1995 and 1997 were 79 Brownheaded Parrots, 33 Pygmy Geese and 15 Purplecrested Louries (K. Herholdt pers. comm.).

#### Poisons

The use of poisons to protect crops from insect pests and to destroy problem animals, including jackals and stray dogs, has caused damage to bird populations, particularly birds of prey, throughout southern Africa (Harrison *et al.* 1997a, p. 1xxx). At present, intensive agriculture in southern Mozambique in the aftermath of the civil war is limited, and the use of poisons is not common. However, as agricultural activities expand, the use of poisons is likely to become more widespread. The fact that toxic compounds whose use is banned in other regions may be available at lower costs than more environmentally friendly compounds could result in serious threats to wildlife.

#### Trade in traditional medicines

Body parts of birds, especially vultures and other large birds of prey, are used in traditional medicines. Measures to protect these birds in neighbouring states could lead to increased

<b>Table 8.</b> Excessive annual quotas for export of spe	cies.
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Orangebreasted Waxbill	10 000
Golden Bishop	8 000
Redcollared Widow	5 000
Blackbellied Korhaan	500
Bluebilled Firefinch	15 000
Redbilled Firefinch	15 000
Redbacked Mannikin	12 000
Pied Mannikin	10 000
Pygmy Goose	3 000
Spurwing Goose	5 000
Redheaded Quelea	15 000
Green Pigeon	11 000
Bluespotted Dove	15 000
Steelblue Widowfinch	15 000

demand from practitioners from those states for birds obtained in Mozambique, resulting in increased hunting of the birds here.

#### **Threatened species**

On the basis of the results of this survey, the Oliveheaded Weaver is described here as 'globally threatened: vulnerable', according to the criteria laid down by the IUCN (Collar et al. 1994). It had not previously been recognised as threatened (Collar et al. 1994), presumably because no precise information about its status was available.

The following species which occur as nonbreeding visitors in this region are considered globally threatened (Collar et al. 1994):

- Lesser Flamingo
- Lesser Kestrel
- □ Corncrake

All three species occur marginally in this region and are likely to be hunted here.

#### **Near-threatened**

#### Southern Banded Snake Eagle

It has disappeared from much of the coastline but in the extreme south, where it still occurs, its habitat is protected within the Maputo Elephant Reserve and neighbouring proposed conservation areas.

#### Neergaard's Sunbird

Its status is of concern because it has a restricted range which has contracted as a result of the destruction of coastal forest. There is no immediate threat to its remaining strongholds.

#### Vulnerable

#### Cape Vulture

Foraging opportunities within Mozambique are limited for the small breeding colony in the Libombo Mountains near the border with Swaziland.

#### Locally threatened

Table 9 lists species regarded as threatened within southern Mozambique, but which are not globally threatened. A species is regarded as locally threatened if it has an estimated population in the region of fewer than 1000 birds and is decreasing. The main threats to each are listed in Table 9 and discussed in the species texts.

#### DISCUSSION

Current fieldguides and reference works for the southern African region (e.g. Newman 1983; Maclean 1993; Sinclair et al. 1993) depict most bird species distributions as uniform across southern Mozambique. By contrast, this survey shows many species to have sharply discontinuous distributions across the region. Many of the discontinuities correspond with the boundaries of the major vegetation types.

It has been noted above that species totals in most grid cells are lower than those for the neighbouring parts of South Africa and Swaziland (see Coverage under METHODS AND AN OVERVIEW OF RESULTS). Also, for many

#### Table 9. Locally threatened species.

Ostrich	hunting
Saddlebilled Stork	disturbance of wetlands
Secretarybird	hunting
Hooded Vulture	game hunting
Lappetfaced Vulture	game hunting
Martial Eagle	hunting
Crowned Eagle	deforestation
Palmnut Vulture	deforestation
Crowned Crane	hunting
Blue Quail	disturbance of wetlands
Kori Bustard	hunting
Stanley's Bustard	hunting
Lesser Jacana	disturbance of wetlands
Painted Snipe	disturbance of wetlands
Whitecrowned Plover	disturbance of riverbanks
Emerald Cuckoo	deforestation
Green Coucal	deforestation
Pel's Fishing Owl	disturbance of riverbanks
Mangrove Kingfisher	deforestation
White-eared Barbet	deforestation
Slenderbilled Honeyguide	deforestation
Slender Bulbul	deforestation
Blackheaded Apalis	deforestation
Woodwards' Batis	deforestation
Wattle-eyed Flycatcher	deforestation
Pinkthroated Longclaw	disturbance of wetlands
Chestnutfronted Helmetshrike	deforestation
Olive Sunbird	deforestation
Green Twinspot	deforestation
Redthroated Twinspot	deforestation
Grey Waxbill	deforestation & cage-bird trade
Pied Mannikin	cage-bird trade

waterbirds (e.g. Dabchick and Fish Eagle) there is a discontinuity in reporting rates across the border with the Kruger National Park, South Africa. This is only partly due to more intensive coverage in the neighbouring regions during the southern African atlas project. The lower species diversity in this region reflects environmental factors. The western border with Swaziland and South Africa coincides with the ridge of the Libombo Mountain range. By contrast with the diverse topography and vegetation types to the east, this region consists of a flat plain with a sandy, nutrient-deficient substrate with poor water-retention properties. It is largely devoid of watercourses and artificial impoundments. It supports large tracts of continuous homogenous woodlands.

Many woodland species show gaps in their distributions which correspond with the floodplains of the Inkomati and Limpopo rivers. The fact that apparently suitable woodland areas do occur within the gaps in distribution suggests that the rivers and their floodplains have acted as a barrier to the movements of the species over a long period of time. In some instances, subspecific differences between populations on either side of the floodplains have been documented (Clancey 1996) and are commented on in the species accounts (e.g. Flappet Lark, Black Sunbird and Forest Weaver). Further investigations along these lines may yield interesting results.

The distributions of most waterbirds reflect the concentration of freshwater wetland habitats in the floodplains of the Inkomati and Limpopo rivers.

Comparison of habitat preferences observed in this survey with the vegetation analysis presented in the southern African atlas (Harrison et al. 1997a,b) highlights a potential problem in interpreting that analysis. Several species which were shown to have a strong association with the Mopane biome, relative to other biomes in that analysis, were found in this survey to be marginally or not at all associated with Mopane woodlands. These include African Hawk Eagle, Bronzewinged Courser, Doublebanded Sandgrouse, Cape Parrot, Mottled and Böhm's Spinetails and White Helmetshrike. The reported association with Mopane in the southern African analysis may be due to the species occurring within habitats which interdigitate with Mopane woodlands and not the Mopane woodlands themselves. In some cases (Rackettailed Roller, Trumpeter Hornbill, Yellowbellied Bulbul, Olivetree Warbler, Lesser Grey Shrike and Melba Finch) the authors of the species texts in that publication pointed out that the associations with Mopane were potentially misleading.

This survey provides a clear picture of the status and range within the region of the majority of species which occur there. As a result of the limited number of observers and time available, it is inevitable that some rare and inconspicuous species were overlooked. The status of, for example, the Green Tinker Barbet and East African Swee remain tantalisingly obscure.

Some coastal species that were reported in the north of the region prior to this survey were observed less widely (e.g. Little Spotted Woodpecker, Slender Bulbul, Blackheaded Apalis, Shortwinged Cisticola) or not at all (Vanga Flycatcher and Redwinged Warbler). While it is likely that these species have declined as a result of the destruction of natural vegetation in the densely populated coastal region, it is also likely that they persist in the increasingly fragmented remnants of the natural vegetation, not all of which were visited during this survey. Further fieldwork is likely to yield additional distributional records for these species.

A number of difficulties were experienced during the fieldwork, some of them relating to the lasting effects of the civil war. Of greatest concern was the number of land-mines which were laid throughout Mozambique. The process of mine clearing commenced in 1992, but was still ongoing when fieldwork was completed in 1998. As a consequence, observers were often inhibited from venturing away from well-worn roads and paths. Fortunately, no land-mines were detonated by observers.

Available maps date back to the 1970s and are no longer up to date with respect to the road network. During the civil war, many roads fell into disuse and practically ceased to exist, while subsequently new roads have been created, the existence and destinations of which are not generally known, let alone mapped. In addition, many roads become impassable after heavy rains.

Malaria-control measures lapsed during the civil war, and the disease has been rampant during subsequent years. More than one observer suffered acutely from this disease during the course of fieldwork. Conditions in the field were often uncomfortably hot and humid. Observers frequently suffered the painful attentions of horse flies of the family Tabanidae, and stingless bees of the subfamily Meliponinae caused much irritation by swarming persistently in the faces of observers. The fact that previous ornithological exploration in the region has been concentrated in the winter months (see e.g. Clancey 1996, pp. 7–8) is probably related to some of these difficulties.

Much of the interior is undeveloped and largely uninhabited, and consequently fuel, drinking water and other supplies are unobtainable over large areas.

In contrast to other parts of southern Africa, where more than 5000 observers contributed to the bird atlas project (Harrison *et al.* 1997a,b), the number of potential contributors with the necessary skills and inclination within Mozambique is very small. Furthermore, as a result of severe communication difficulties, it is likely that some potential contributors were unable to establish contact with the atlas project and that checklists submitted to the project may not have been received. Among other administrative difficulties, the author spent more than 50 days in total attending to immigration formalities.

# **Explanation of species accounts**

#### **DISTRIBUTION MAPS**

On the species maps, a black circle is placed at the centre of each grid cell in which the species was reported. The area of the circle is proportional to the reporting rate of the species in that grid cell; the diameter is proportional to the square root of the reporting rate.

The map is accompanied by a seasonality histogram showing the fluctuations in reporting rates within the range of the species throughout the year, and summary statistics representing the total number of observations of the species, the number of grid cells in which it was reported and the mean reporting rate within its range. Reporting rates reflected in the seasonality histogram are calculated over the range of the species, not over the whole region.

The species maps include data from the neighbouring parts of South Africa, Swaziland and Zimbabwe, taken, with permission, from *The Atlas of Southern African Birds* (Harrison *et al.* 1997a,b).

The seasonality histograms and summary statistics do not include the data from the neighbouring states.

#### SPECIES TEXTS

Species texts are headed by English and scientific names (following *Roberts' Birds of Southern Africa* (Maclean 1993)) and Portuguese names (M. de Melo *et al.*; see Acknowledgements). Species numbers are those of Maclean (1993).

References in the species accounts to *The Atlas of Southern African Birds* are given using the abbreviation ASAB, followed by the volume and page numbers, e.g. ASAB1: 2–3.

#### Habitat

The species accounts describe the habitat types in which the species was most often observed during this survey (which may differ from the preferred habitat of the species in other parts of its range). Wherever possible, explanations are offered for discontinuities in reporting rates on the maps.

#### Seasonal movements

Seasonal movements are discussed with reference to fluctuations in reporting rates represented in the graphics, together with information from neighbouring regions.

#### Social organisation

An indication of whether a species is solitary or gregarious and of typical flock sizes is given. Mention is made of any noteworthy concentrations, especially for waterbirds. For each species which was recorded more than a handful of times, an estimate of the population within the region is given.

#### **Estimated densities**

For the more numerous woodland species, the estimated densities in each of the main woodland types is tabulated. Abbreviations used for woodland types in the tables are:

ACA: Acacia MOP: Mopane MIO: Miombo (*Julbernadia* and *Brachystegia* woodlands) OBW: Other broadleaved woodlands (including *Terminalia-* and *Combretum-*dominated woodlands and mixed woodlands).

#### **Breeding data**

The timing of breeding for the species in the neighbouring regions is reported, based on the data supplied by Harrison *et al.* (1997a,b), Tarboton *et al.* (1987), Irwin (1981) and Dean (1971). Breeding records from this survey are also mentioned.

#### **Subspecies**

Where more than one subspecies has been described within the region, these are mentioned, together with their supposed ranges.

#### **Conservation status**

Past and ongoing changes and threats to the status of the species are discussed.

#### Interspecific relationships

Ecological relationships between similar species and the relationships between brood parasites and their hosts are mentioned.



JACKASS PENGUIN

# 1 Ostrich

## Struthio camelus

#### Avestruz

A rare breeding resident. There are two discrete populations, separated by the Limpopo River. Dense human settlement along the riverbanks is a more effective barrier to movement across the river than the river itself. The western population occurs in light Mopane and Acacia woodlands and the other in grassland and Acacia savanna. The species has been subjected to considerable hunting pressure and possibly fewer than 200 birds survive. The western population falls within a hunting concession and enjoys protection. Prior to this survey it was recorded from western Maputo Province (Clancey 1996) where it may now be extinct. The species was probably never very numerous as most of the region is too densely wooded to favour it. Ostriches were introduced into the Maputo Elephant Reserve (2632BD) in 1967 but they did not survive there (Tello 1973). It is unlikely that it ever occurred naturally there, or anywhere else on the coast, as the moist grasslands are unsuitable for it. There is no evidence of seasonal movements. Breeding in southern Africa takes place throughout the year with a spring-summer peak (ASAB1: 2-3\*). Although widespread in Africa, it is threatened in the region. Most of the present southern African population of Ostriches are descended from domesticated stock which was subject to cross-breeding with races from elsewhere in Africa (ASAB1: 2-3). Because there is no record of domesticated Ostriches being kept in this region, the population is probably genetically pure, which enhances its protection-worthiness.

(\* *The Atlas of Southern African Birds*, Volume 1, pp. 2–3; see the Explanation of Species Accounts, p. xxiv.)

# **3 Jackass Penguin** Spheniscus demersus

Pinguim do Cabo

A single bird was captured by fishermen at the Limpopo River mouth (2533BA) in November 1994 (J. Gouws pers. comm.). Prior to this survey it had been recorded from the Bay of Maputo and Inhaca Island (Clancey 1996). It breeds along the coast of southern Africa as far east as Bird Island (3326CD), Algoa Bay, South Africa, and juveniles sometimes wander into this region (ASAB1: 4–5).



# **6 Great Crested Grebe** *Podiceps cristatus* Mergulhão-de-crista

Two birds were present for several weeks on a freshwater lake at Chongoene (2533BB) in January 1997 (M. Rees). Prior to this survey the species was reported from Maputo (2532DC) (Clancey 1996); in September 1971, 87 birds were seen on Lake Nhangela (2435AC) (Milstein 1984). During visits to this locality during this survey, water-levels in the lake were too low to be suitable for grebes. It is evidently an occasional nonbreeding visitor to the region and may be present in numbers when conditions are favourable.



# 8 Dabchick Tachybaptus ruficollis Mergulhão-pequeno

A common resident on open fresh still waters. The species is nomadic within the region, appearing opportunistically on temporarily flooded wetlands. There are few localities where it is permanently present. Because of the scarcity of man-made impoundments, the species is associated with these to a lesser extent here than elsewhere in southern Africa (ASAB1: 6–7). The discontinuity across the border with South Africa is due to the relative scarcity of wetlands to the east of the Libombo mountains. The population is estimated at around 2000 birds. Breeding peaks in summer (ASAB1: 6–7) and chicks were observed in September, November, March and April.



# 11 Shy Albatross

# Diomedea cauta

Albatroz-de-barrete-branco

A bird was seen from the shore at Ponta Milibangalala (2632BD) in August 1996 (J. Burlison). Prior to this survey it was recorded from the seas off Maputo (Clancey 1996) and from Inhaca Island (2632BB) in October and November 1976 (Brooke *et al.* 1981). It is a common nonbreeding visitor to the coast of southern Africa and breeds on islands off Tasmania and New Zealand (ASAB1: 13).



## **12 Blackbrowed Albatross**

Diomedea melanophris Albatroz-olheirudo

A bird was seen from the shore at Ponta Milibangalala (2632BD) in August 1996 (J. Burlison). It has been described as a nonbreeding visitor to seas off the territory (Clancey 1996). It breeds on subantarctic islands during the austral summer (ASAB1: 14).



## 14 Yellownosed Albatross

Diomedea chlororhynchos

Albatroz-de-bico-amarelo

A bird was seen from the shore at Ponta Milibangalala (2632BD) in August 1996 (J. Burlison). It has been described as a nonbreeding visitor to seas off the territory (Clancey 1996). Prior to this survey it was recorded from Inhaca Island (2632BB) in October and November 1976 (Brooke *et al.* 1981). It breeds on temperate and subantarctic islands in the South Atlantic and Indian Oceans during the austral summer (ASAB1: 15).



# **21 Pintado Petrel** *Daption capense*

Pombo-marinho do Cabo

Recorded from Inhaca Island (2632BB) (C. Bento). It is considered to be a nonbreeding winter visitor to the seas off the territory (Clancey 1996). It breeds on Antarctica and the more southerly, circumpolar subantarctic islands (ASAB1: 17).



## 23 Greatwinged Petrel

Pterodroma macroptera

Freira-de-asas-grandes

A bird was seen from the shore at Ponta Milibangalala (2632BD) in August 1996 (J. Burlison). It has previously been recorded at Xai-Xai (2533BA) in July 1959 (Cole 1964).



# **32** Whitechinned Petrel

Procellaria aequinoctialis Paínho-de-queixo-branco

A bird was seen from the shore at Ponta Milibangalala (2632BD) in August 1996 (J. Burlison). It has been described as a nonbreeding visitor to seas off the territory, most numerous in midwinter and prior to this survey was recorded in the bay of Maputo (2632BA) (Clancey 1996) and off Inhaca Island in October and November 1976 (Brooke *et al.* 1981). Six birds were seen on 8 November 1976 off Inhaca Island. It breeds on circumpolar subantarctic islands during the austral summer (ASAB1: 18).



# 46 Blackbellied Storm Petrel

Fregetta tropica

Paínho-de-ventre-preto

Recorded once near Inhaca Island (2632BB) in January 1997 (F. de Boer). This was the first record of the species for Mozambique.



# **49 White Pelican** *Pelecanus onocrotalus*

Pelicano-branco

A common visitor to large waterbodies, saline or fresh. A flock of approximately 500 birds was seen at Massingir (2332CC) in April 1995 and flocks of 200 to 300 have been seen on lakes in the Maputo Elephant Reserve (2632DB). During a survey of wetlands in September 1971, 926 birds were counted at Lake Chuali (2532BB) and 958 at Lake Bambene (2433CB) (Milstein 1984). The number of birds in the region may exceed 3000 at times. Breeds to the south in KwaZulu-Natal, South Africa, and possibly to the north in the Zambezi River delta (Clancey 1996). Breeding has not been observed in this region but may have been overlooked.



## 50 Pinkbacked Pelican

Pelecanus rufescens Pelicano-cinzento

Uncommon visitor, usually in small numbers to open waters. More than 200 birds were present and possibly bred on the dam at Massingir (2332CC) in April 1995. Subsequently, water-levels in the dam were far higher and this species was no longer present there. The number of birds in the region may exceed 400 at times. Breeding occurs to the south in Kwa-Zulu-Natal and has not been confirmed in this region, but may be expected in late summer (ASAB1: 26).



## 921 Redfooted Booby

#### Sula sula

Alcatraz-de-patas-vermelhas

A bird was seen on the beach at Bazaruto Island (2135CB) in January 1997 (Hockey *et al.* 1998). It breeds on tropical islands and is a vagrant to southern Africa. This is the first record for Mozambique and the fourth for southern Africa (ASAB1: 763).



# **53 Cape Gannet** *Morus capensis* Alcatraz do Cabo

Common nonbreeding visitor off the coast, mostly in winter but with some summer records. It breeds in spring and summer along the coast of Namibia and South Africa; the nearest breeding colony is at Bird Island (3326CD), Algoa Bay (ASAB1: 28). 24 birds ringed at Lambert's Bay and Bird Island in South Africa between 1952 and 1997 have been recovered in Mozambique, seven between Ponta Douro (2632DD) and Macanetta (2532DC), nine between Macanetta and the Save River Mouth (2035CC) and eight to the north of this region, reaching as far north as Pemba (1340DA). Two birds were recovered in November and the balance of the recoveries spanned the period 19 March to 22 September. At least two of the birds recovered north of the Save River were adults (SAFRING). Winter dispersal along the east coast is said to be related to the annual sardine run (ASAB1: 28), but the recoveries show that many birds continue far beyond the limits of the sardine run, which barely reaches Mozambican waters. Up to 40 birds have been seen at Inhaca Island (Brooke et al. 1981). The number of birds reaching this region may exceed 1000.



### 55 Whitebreasted Cormorant

*Phalacrocorax carbo* Corvo-marinho-de-faces-brancas

Common breeding resident which occurs mainly along the coast, but also inland. About 2000 birds were observed roosting in alien trees around the upper reaches of the lagoon at Bilhene (2533AD) during the winter of 1995. On subsequent visits to the site, no roosting birds were seen. The discontinuity across the border with South Africa is due to the relative scarcity of waterbodies to the east of the Libombo Mountains. The population probably does not exceed 3000. Most coastal birds forage at sea, with only small numbers seen foraging in lakes. Breeding has been observed in alien *Casuarina* trees at Inhaca Island (2632BB) in March 1996 (De Boer & Bento 1999).



# **56 Cape Cormorant** *Phalacrocorax capensis*

# Corvo-marinho do Cabo

An uncommon nonbreeding visitor from South African waters which enters the region only off the coast in the far south. An influx of more than 300 birds was observed around Inhaca Island (2632BB) in August 1993 (De Boer & Bento 1999). A similar influx was reported in northern KwaZulu-Natal, South Africa, in July 1994 (ASAB1: 32). Such incursions are associated with winter migrations of sardine *Sardinops ocellatus* along the coast of KwaZulu-Natal, South Africa. 14 birds were seen at Inhaca Island in October 1976 (Brooke *et al.* 1981).



# **58 Reed Cormorant** *Phalacrocorax africanus* Corvo-marinho-africano

Common breeding resident on inland lakes, temporary pans and rivers. It is also observed regularly at sea in the Bay of Maputo and the Bay of Inhambane (Brooke *et al.* 1981). Occurs singly or in flocks of up to 100 birds. Over 400 birds were counted along the Futi Channel in the Maputo Elephant Reserve (2632BC) in January 1998 (C. Bento) and 52 were counted on the Bazaruto Archipelago (2135C) in January 1998 (U. & P. Kohler). There is no evidence of seasonal movements here or in Swaziland (Parker 1994a), although it is a partial migrant in South Africa and Zimbabwe (ASAB1: 36). Breeding may occur throughout the year, with a summer peak (ASAB1: 36). The population is estimated at around 5000 birds.



#### **60** Darter

## Anhinga melanogaster Mergulhão-serpente

Uncommon breeding resident on inland lakes, observed singly or in pairs. The discontinuity across the border with South Africa is due to the relative scarcity of waterbodies to the east of the Libombo Mountain Range. The number of records is too small for any deductions to be drawn from the seasonal fluctuation in reporting rates. Seasonal fluctuations in numbers have been reported in South Africa and Zimbabwe (ASAB1: 40), but not in neighbouring Swaziland (Parker 1994a). A bird ringed in KwaZulu-Natal, South Africa (2732BC), in 1959, was recovered in Maputo in 1971 (SAFRING). The population is estimated at around 100 birds. Breeding in southern Africa has been reported throughout the year (ASAB1: 40).



## 61 Greater Frigatebird

*Fregata minor* Fragata-grande

A vagrant to the region, reported from Bazaruto (2135CB) and Inhaca (2632BB) Islands after storms at sea. Prior to this survey it was reported from Ponto Douro (2632DD) (Clancey 1996) and off Maputo (2532DC) in February 1976 (Brooke *et al.* 1981).


#### 922 Lesser Frigatebird

Fregata ariel

Fragata-pequena

Four birds were seen in Vilanculos Bay (2135CD) on 28 March 1994 after a cyclone (B. Wursten). This is the second record of the species in southern Africa (Hockey *et al.* 1996). Subsequently, a bird was seen and photographed off Inhaca Island (2632BB) in January 1997 (D. Allan, G. Holtshausen & C. Bento).



# **62 Grey Heron** *Ardea cinerea* Garça-real

A common resident of most wetlands, avoiding fast-flowing rivers and exposed beaches. Breeding has been observed in mixed heronries together with Blackheaded Herons in tall alien Eucalyptus and Casuarina trees within the towns of Maputo (2532DC), Marracuene (2532DA), Palmeira (2532BD), Chokwe (2433CA), Macia (2533AA) and on Inhaca Island (2632BB). These breeding sites are probably only recently established, because breeding has not previously been reported in the region (Clancey 1996). Four or five nests are simultaneously active at each of these sites and breeding at other localities in the region is likely. Breeding activity was observed at all times of the year. Away from the breeding sites, it was observed singly or in pairs. The population in the region is estimated at 400 birds. The population may have increased in recent times as a result of the availability of alien trees for breeding.



# **63 Blackheaded Heron** *Ardea melanocephala* Garça-de-cabeça-preta

A common resident. It was observed in association with marshlands and floodplains. It is more strongly associated with wetlands here than elsewhere in southern Africa, where it has been described as a dryland feeder (ASAB1: 44). Breeding has been observed in mixed heronries together with Grey Herons in tall alien Eucalyptus and Casuarina trees within the towns of Maputo (2532DC), Marracuene (2532DA), Palmeira (2532BD), Chokwe (2433CA), Macia (2533AA) and on Inhaca Island (2632BB). Between 10 and 20 nests were occupied simultaneously at each heronry. Breeding activity was observed throughout the year. Breeding at other localities in the region is probable and the population in the region is estimated at 1000 birds. The population may have increased in recent times as a result of the availability of alien trees for breeding. Away from the breeding sites they are usually encountered singly, but occasionally in groups of up to 10 birds.



# **64 Goliath Heron** *Ardea goliath* Garça-gigante

Uncommon breeding resident on large, open, inland waters, where it occurs singly or in pairs. There is no evidence of seasonal movements. The population is estimated at 100 birds. It may breed at any time of year (ASAB1: 46–47).



# 65 Purple Heron

# *Ardea purpurea* Garça-vermelha

A common breeding resident of wetlands with reedbeds where it is encountered singly or in pairs. It may have been overlooked at some localities, as it sometimes remains hidden in the reeds. The population is estimated at 500 birds. There is no evidence for seasonal movements. Egglaying has been recorded mostly from August to February in southern Africa (ASAB1: 48–49) and breeding was observed here in November.



#### **66 Great White Egret**

*Egretta alba* Garça-branca-grande

An uncommon resident of shallow open wetlands, breeding in reedbeds or trees (ASAB1: 50–51). It occurs singly or in pairs. Breeding has not been observed but probably occurs within the region during periods of heavy rain (ASAB1: 50– 51). There is no evidence for seasonal movements, but it is possible that some birds migrate to breeding sites farther north (ASAB1: 50–51). It is nomadic within the region and often appears at temporarily flooded wetlands. The population is estimated at 300 birds.



# 67 Little Egret

# *Egretta garzetta* Garça-branca-pequena

A common resident which is often seen along the sea shore as well as at other wetlands. It is usually encountered singly or in groups of up to 10 birds. A bird ringed at Rondevlei, Western Cape, South Africa (3418BA), in September 1964 was recovered at Xai-Xai (2533BA) in May 1965 (SAFRING). Up to 130 birds have been seen at roosts in mangrove trees on Inhaca Island (De Boer & Bento 1999) and 138 birds were counted on the Bazaruto Archipelago (2135C) during January 1998 (U. & P. Kohler). Breeding was observed at Inhaca in January and may occur throughout the summer with a peak from December to March (ASAB1: 54). The population is estimated at 2000 birds.



# 68 Yellowbilled Egret

*Egretta intermedia* Garça-branca-intermédia

This species is probably an uncommon visitor to shallow wetlands and flooded grasslands but possibly breeds sporadically within the region. The discontinuity across the border with South Africa is due to the relative scarcity of waterbodies to the east of the Libombo Mountains. The population may exceed 100 birds at times.



#### **69 Black Egret**

#### Egretta ardesiaca

#### Garça-preta

A summer migrant, presumably from farther north in Africa. It was observed in flooded grasslands, and up to 17 birds were present near Lake Chuali (2532BB) in April 1996. Prior to this survey it was reported at Chingute (2632DB) (Tello 1973) and in September 1971, one bird was seen at Nhangue (2435AC) and 20 at Chinanga (2433CD) (Milstein 1984). There are unlikely to be more than 50 birds in the region at any time. Breeding has not been observed but may occur within the region.



# **71 Cattle Egret** *Bubulcus ibis* Carraceira

A common breeding resident which tends to be concentrated near extensive wetlands, but is also seen away from water in cultivated lands, grassland, savanna and light woodland. Although it usually forages away from the water, it requires wetlands for roosting and breeding. It is encountered in flocks, which may number up to 100 birds. It frequently follows large animals and is probably less numerous in the region than formerly because of the current scarcity of livestock and game. Egglaying in the neighbouring part of South Africa has been reported mainly from September to January (Tarboton et al. 1987). Breeding has been observed in the Maputo Elephant Reserve (2632DB) (Clancey 1996). The population is estimated at 1500 birds. The fluctuations in reporting rates provide some evidence for an increase in numbers during the winter, corresponding with movements out of the central part of South Africa (ASAB1: 61-63). Three birds ringed in November in KwaZulu-Natal, South Africa, were recovered at Manhica (2532BD) in June, Magude (2532BA) in August and Maputo (2532DC) in April (SAFRING).



# **72 Squacco Heron** *Ardeola ralloides* Garça-caranguejeira

This species is common in wetlands with shallow water and emergent grasses. It was probably overlooked at times because it often remains hidden in the vegetation. Two subspecies occur (Clancey 1996). A. r. ralloides is a nonbreeding Palearctic migrant. It is not clear from the seasonality data whether A. r. paludivaga is a resident or a breeding intra-African summer migrant with some birds overwintering. The extent of overwintering possibly depends on rainfall. It is seen singly or in pairs during the day and sometimes gathers in groups of up to 20 birds at communal roosts. Over 100 birds were counted along the Futi Channel in the Maputo Elephant Reserve (2632BC) in January 1998 (C. Bento). Breeding occurs during and immediately following good rains. Most egglaying records from the neighbouring part of South Africa were from February (Tarboton et al. 1987). The population is estimated at 1000 birds.



# 74 Greenbacked Heron

*Butorides striatus* Garça-de-dorso-verde

A common resident which is most commonly seen on intertidal mudflats in bays and estuaries but also at inland wetlands with overhanging vegetation. The discontinuity across the border with South Africa is due to the relative scarcity of waterbodies to the east of the Libombo Mountains. Birds at the coast are seen wading in the open in mudflats, whereas at inland wetlands it usually skulks in overhanging vegetation and is consequently sometimes overlooked. It occurs singly or in pairs. The population is estimated at 500 birds. Breeding in southern Africa may occur throughout the year but mostly during the rainy season (ASAB1: 70–71).



#### 75 Rufousbellied Heron

# Butorides rufiventris

Garça-de-barriga-vermelha

Uncommon summer visitor to wetlands. All records were of single birds. Breeding has not been observed but may occur within the region. Prior to this survey it was reported from the Futi Channel (2632DA) (Tello 1973) and Conhane (2433CA) (Herdam 1994). The population is likely to be fewer than 30 birds.



# 76 Blackcrowned Night Heron

Nycticorax nycticorax Garça-nocturna

A common inhabitant of inland wetlands, wherever trees are available for roosting. The discontinuity across the border with South Africa is due to the relative scarcity of waterbodies to the east of the Libombo Mountains. Fluctuations in reporting rates are probably related primarily to changes in conspicuousness, but it is possibly a partial breeding migrant. Evidence that nonbreeding Palearctic migrants may reach this region comes from the recovery of a bird ringed in Romania in June 1969 and recovered in northern Mozambique (1735CA) in February 1973. Evidence for more local movement comes from the recovery of a bird ringed at Rondevlei, South Africa (3418BA), at Palmeira (2532BD) (SAFRING). It is usually encountered singly or in pairs, but up to 30 birds were seen together flying to and from roosting sites in woodland bordering marshlands near the Limpopo River mouth (2533BA). It was probably overlooked at some sites owing to its nocturnal habits. The population may exceed 200 birds. Breeding may occur at any time of year, but is most likely in the rainy season (ASAB1: 68-69).



# **78 Little Bittern** *Ixobrychus minutus* Garcenho-pequeno

Uncommon summer migrant to wetlands with reedbeds. All records were of single birds. It is an inconspicuous bird which tends to remain hidden among reeds and is therefore probably more widespread and common than the few records suggest. Breeding has not been observed and it is not known whether the birds which occur here are nonbreeding Palearctic migrants or breeding intra-African migrants. Prior to this survey it was reported from the Futi Channel (2632DA) and Lakes Mechingane and Chingute (2632DB) (Tello 1973). The population is unlikely to exceed 100 birds. The absence of winter records belies speculation that it migrates to Mozambique from South Africa in winter (ASAB1: 76–77).



# **79 Dwarf Bittern** *Ixobrychus sturmii* Garcenho-anão

An uncommon intra-African summer migrant which is usually encountered singly, skulking in dense vegetation at the fringes of temporary freshwater ponds. It forages mostly at night (ASAB1: 74) and is present for only a short part of the year at the height of the rainy season and was probably overlooked at several sites. Breeding was not observed but probably occurs within the region. The population is estimated at 200 birds.



#### 81 Hamerkop

# Scopus umbretta

Pássaro-martelo

A common resident at all inland wetland types where trees are available for nesting. It occurs in pairs but congregates in groups of up to 10 birds at abundant food sources. The discontinuity across the border with South Africa is due to the relative scarcity of waterbodies to the east of the Libombo Mountains. Breeding may occur at any time of year but is most likely in the early summer (ASAB1: 80–81) and was observed in January. The population probably exceeds 1000 birds.



# **83 White Stork** *Ciconia ciconia* Cegonha-branca

Uncommon nonbreeding Palearctic summer migrant to grasslands and wetlands. It was observed in flocks of up to 100 birds. Numbers fluctuate greatly from year to year. Overwintering has often been reported in southern Africa (ASAB1: 82–83) but was not observed during this survey. Six birds ringed in Germany between 1951 and 1965 have been recovered in this region between 1952 and 1982 (at least three of these were killed by hunters). The dates of the recoveries span the period 29 August to 15 May (SAFRING). It is less numerous here than in the central part of southern Africa, where more open habitat is available (ASAB1: 82–83) and numbers in this region probably never exceed 500 birds.



# 84 Black Stork

# *Ciconia nigra* Cegonha-preta

An uncommon resident in the Libombo Mountains along the western border with Swaziland and South Africa, and an occasional vagrant elsewhere. It forages mostly at rivers and pans. Breeding takes place on cliffs during winter. Egglaying in southern Africa has been reported mainly from May to August with a June peak (ASAB1: 86–87). It was observed singly and in pairs and the population is estimated at 20 birds.



# **85 Abdim's Stork** *Ciconia abdimii*

Cegonha-de-barriga-branca

Uncommon nonbreeding intra-African summer migrant to savanna, grassland and wetlands; it usually occurs in flocks of up to 20 birds. However, during January 1997, several flocks of more than 100 birds each were seen in marshlands in the vicinity of Chibuto (2433DA) on the Limpopo River floodplain. The population probably exceeds 1000 birds at times.



#### 86 Woollynecked Stork

#### *Ciconia episcopus* Cegonha-episcopal

An uncommon resident of inland wetlands, especially those surrounded by expanses of short grass. It was seen singly and in flocks of up to 20 birds. The discontinuity across the border with South Africa is due to the relative scarcity of waterbodies to the east of the Libombo Mountains. Breeding has not been observed but probably occurs within the region during summer (ASAB1: 89–90). There is no evidence for seasonal movements. The population is estimated at 100 birds. Much larger numbers have been reported in central Mozambique (Clancey 1996).



# **87 Openbilled Stork** *Anastomus lamelligurus*

# Bico-aberto

Common resident of open wetlands, occurring in flocks which may number up to 100 birds. It is seen most often at fresh waterbodies and only occasionally on intertidal mudflats. During a survey of 14 wetlands in the region in September 1971, only three birds were counted (Milstein 1984), suggesting that dispersal to smaller temporary waterbodies had occurred, because greater numbers were observed at several of the same localities during this survey. Breeding has not been observed but may occur within the region at any time of year (ASAB1: 92–93). The population is estimated at 500 birds.



#### 88 Saddlebilled Stork

#### *Ephippiorhynchus senegalensis* Jabiru

Uncommon breeding resident of large open inland wetlands. It was observed in pairs, often accompanied by a single juvenile. Egglaying in South Africa has been reported from April to June (Tarboton *et al.* 1987). It has probably declined in the region as a result of human disturbance around wetlands and hunting. A single bird that was regularly seen at Bilene (2533AC) was shot by a sport hunter in January 1998. It probably numbers fewer than 30 breeding pairs and is threatened in this region.



# **89 Marabou Stork** Leptoptilos crumeniferus Marabu

It is not clear whether this species is an uncommon visitor or a rare breeding resident. Birds in breeding plumage have been observed at wetlands near Chibuto (2433BC) during May, suggesting that breeding may occur in that vicinity. During the following summer, two abandoned nests believed to be of this species were seen there. Elsewhere in southern Africa, breeding takes place during the winter (ASAB1: 98–99). It was observed most often around wetlands, but sometimes in woodlands far from water. It was observed singly and in groups of up to five birds. There is no clear seasonal pattern to its occurrence. Numbers are likely to be augmented periodically by visitors from neighbouring South Africa and Zimbabwe and may exceed 100 birds at times.



# 90 Yellowbilled Stork

#### Mycteria ibis

Cegonha-de-bico-amarelo

Uncommon visitor to inland wetlands, seen singly or in flocks which may exceed 100 birds. 173 birds were counted at Lake Chuali (2532BB) in September 1971 (Milstein 1984). Breeding has not been observed within the region but may occur in early summer (ASAB1: 100–101). The population may be augmented in summer by visitors which breed farther north, but probably does not exceed 400 birds at any time.



# **91 Sacred Ibis** *Threskiornis aethiopicus* Ibis-sagrado

A common resident of wetlands. Forages in intertidal mudflats in bays and estuaries as well as at marshlands. It is occasionally encountered in irrigated croplands, but is less often associated with man-made habitats than is the case in South Africa (ASAB1: 102–103). It was encountered singly and in flocks of up to 20 birds. The population is estimated at 200 birds. Breeding has not been observed within the region but probably occurs in midsummer (ASAB1: 102–103).



# **93 Glossy Ibis** *Plegadis falcinellus* Ibis-preto

A common resident around marshlands and other shallow wetlands. It was observed in flocks of up to 100 birds. It is often the first waterbird to arrive at newly flooded areas. The species has greatly increased in numbers in South Africa in recent years, largely in response to the creation of artificial wetlands (ASAB1: 106-107). In this region, artificial wetlands are scarce and the species is associated almost exclusively with natural wetlands. Breeding has not been observed within the region but probably occurs in summer (ASAB1: 106-107). Most of the southern African population is believed to migrate to the tropics in winter (ASAB1: 106-107) but there is no evidence of seasonal movements in this region. Over 900 birds were counted at Lake Chuali (2532BB) in September 1971 (Milstein 1984) and over 300 birds were counted at Bela Vista (2632BA) in January 1998 (C. Bento). The population probably exceeds 2000 birds.



# **94 Hadeda Ibis** *Bostrychia hagedash* Singanga

A common breeding resident of woodland and savanna, restricted to areas where surface water is available. It usually occurs in pairs but occasionally congregates in groups of up to 20 birds. The population probably exceeds 5000 birds. Breeding in southern Africa has been reported mainly from October to December (ASAB1: 108–109) and was observed here in January. The species has greatly expanded its range elsewhere in southern Africa as a result of the availability of alien trees and artificial water sources (ASAB1: 108–109). These factors have not been operative to the same extent in this region and its status has probably changed little.





# **95 African Spoonbill** *Platalea alba* Colhereiro-africano

An uncommon resident of inland wetlands with shallow water. During a survey of wetlands in September 1971, 415 birds were counted at Lake Bambene (2433CB) and 458 at Lake Nhangul (2433BC) (Milstein 1984). During this survey, it was observed singly and in flocks of up to 20 birds. The large numbers reported in 1971 indicate that numbers fluctuate greatly and that large influxes from elsewhere in southern Africa can be expected when conditions are temporarily favourable. Although over 1000 birds were present in the region in 1971, numbers might not exceed 100 birds at other times. The species is believed to have increased in numbers elsewhere in southern Africa as a result of the creation of artificial wetlands (ASAB1: 110-111). There has not been a corresponding increase in wetlands in this region and there has probably been little change in the breeding population. Breeding was not observed but probably occurs within the region during winter (ASAB1: 110-111).

#### **96 Greater Flamingo** *Phoenicopterus ruber*

#### Flamingo-comum

A common visitor. It occurs in flocks which sometimes number hundreds and occasionally thousands of birds. It occurs most regularly along the coast in bays and estuaries. In protected bays it frequently roosts in densely packed floating rafts. It is also seen in large numbers on large expanses of shallow water inland. The largest concentration during this survey was of more than 3000 at Lake Nhangule (2433BC) in September 1997. The largest previously reported concentration in the region was of approximately 15 000 birds (including some Lesser Flamingos) at Lake Bambene (2433CB) during a survey of wetlands in September 1971 (Milstein 1984). During the same survey, 5 441 birds were counted at Lake Nhangule (2433BC) and 2 143 at Lake Marrangua (2434CB). A flock of approximately 5000 was reported in the Maputo Elephant Reserve (2632BD) in January 1970 (Tello 1973). Over 1500 were present at Salinhas da Matola, Maputo (2532DC), in January 1998 (C. Bento). Over 1000 were present on the Bazaruto Archipelago (2135C) in January and July 1996. Although present throughout the year, it is not known to breed within the region. Peak numbers in the region could exceed 30 000 (in early summer), but fewer than 5000 may be present at other times. Newly fledged young were present at Bazaruto during July 1996, at Zinave (2133BD) in July 1997, and at Lake Nhangule in September 1997. The presence of juveniles was also reported from the Maputo Elephant Reserve in September 1967 (Tello 1973). It is suspected that birds which breed in Botswana migrate eastwards to the Mozambique coast and farther north soon after the young have fledged (ASAB1: 112-113). A powerline from Cabora Bassa to South Africa passing through the west of the region straddles a supposed migration route and poses a potential hazard. To date, however, no casualties have been observed along the powerline.



# **97 Lesser Flamingo** *Phoeniconaias minor* Flamingo-pequeno

An uncommon visitor. It occurs most often on saline lakes and less often on the sea shore or other inland waters. It was seen in flocks of up to 300 birds, most often in the company of Greater Flamingos. The population could exceed 1000 at times. Although present throughout the year, no breeding attempts have been recorded within the region. Breeding takes place in Botswana, and birds disperse eastwards from there (ASAB1: 114–115). It is classified as 'near-threatened' globally on the basis of threats to a major breeding ground in East Africa (Collar *et al.* 1994). A powerline from Cabora Bassa to South Africa passing through the west of the region straddles a supposed migration route and poses a potential hazard. To date, however, no casualties have been observed along the powerline.



#### 99 Whitefaced Duck

*Dendrocygna viduata* Pato-assobiador-de-faces-brancas

A common breeding resident on inland wetlands. It usually occurs in small flocks, but sometimes flocks number hundreds of birds. The birds congregate on larger waterbodies during dry periods and disperse to smaller temporary waterbodies after heavy rains. Over 3000 birds were counted at Lake Panjane (2632CD) in August 1997. During a survey of 14 of the larger wetlands in the region in September 1971, 722 birds were counted (Milstein 1984). During this survey, greater numbers were seen at some of the same localities, indicating that dispersal to smaller waterbodies had occurred at the time of the 1971 survey. A bird ringed in the Northern Province, South Africa (2429CD), in March 1970 was recovered by a hunter at Incoluane (2532BB) in June 1971 (SAFRING). The population may exceed 15 000. Breeding takes place mostly in late summer (ASAB1: 116-117) but was reported here in July. It has expanded its range elsewhere in southern Africa as a result of the availability of artificial wetlands, but its status in this region has remained unchanged or possibly declined as a result of hunting pressure.



# **100 Fulvous Duck** Dendrocygna bicolor

Pato-assobiador-arruivado

An uncommon breeding resident on the larger inland waters. It was observed in flocks of up to 100 birds. Although some birds are present in winter, numbers are markedly greater in summer, supporting the hypothesis of a migration northwards from South Africa after breeding (ASAB1: 118–119). In September 1971, more than 12 000 birds were counted at Lake Chuali (2532BB) (Milstein 1984). A weir was subsequently built on the Inkomati River immediately below the lake. The raised water-level appears to be less favourable for the species and during this survey, the number of birds present on the lake probably did not reach 1000 at any time and the total population in the region may be fewer than 5000. Egglaying records in southern Africa range from December to September (ASAB1: 118–119).



#### **101 Whitebacked Duck**

*Thalassornis leuconotus* Pato-de-dorso-branco

An uncommon breeding resident on inland waters with emergent vegetation. It disperses to small temporary pans after heavy rains. It was encountered in flocks which sometimes numbered up to 100 birds. Prior to this survey it was reported from the Maputo Elephant Reserve (2632DB) (Tello 1973). The population is estimated to be 5000 birds. Breeding may occur at any time of year but egglaying in southern Africa has been reported mostly from March to June (Irwin 1981; Tarboton *et al.* 1987; ASAB1: 120–121).



# **102 Egyptian Goose** *Alopochen aegyptiacus* Ganso do Egipto

An uncommon resident on permanent inland waters. It was observed on the lagoon at Bilene (2533AC) but otherwise avoids the coast. It usually occurs in pairs but sometimes congregates in flocks of up to 20 birds. There is no evidence of seasonal movements in this region. It occurs at lower density here than in South Africa, at least partly because the proliferation of artificial wetlands in that country has allowed it to increase (ASAB1: 122–123). The population in the region is estimated at 500 birds. Breeding may occur at any time of year but is most likely in summer (ASAB1: 122–123).



#### **104 Yellowbilled Duck**

*Anas undulata* Pato-de-bico-amarelo

An uncommon resident on inland waters. It was observed in flocks of up to 20 birds. There is no evidence for seasonal movements. It is less numerous here than in South Africa where it exploits man-made wetlands (ASAB1: 126–127). Breeding may occur at any time of year but is most likely in late summer (ASAB1: 126–127). The population is estimated at 200 birds.



#### **105 African Black Duck**

Anas sparsa

Pato-preto-africano

A rare resident which occurs in pairs on fast-flowing rivers. Suitable habitat within the region is limited to the vicinity of the Libombo Mountains and on one occasion a pair was seen at the lagoon at Chidenguele (2434CC). It may number fewer than 100 birds. There is no evidence for seasonal movements. Breeding takes place in winter and early summer (ASAB1: 128–129).





It is not clear whether the species is an uncommon nonbreeding visitor from South Africa or a rare breeding resident. It is more common in the more arid western half of southern Africa. It occurs on inland waters in flocks of up to 20 birds. There are too few observations to deduce whether there is any seasonal pattern to its occurrence. A bird ringed at Rondevlei, Western Cape, South Africa (3418BA), has been recovered near the Save River Mouth (2134BB) (SAFRING). The population is not likely to exceed 100 birds at any time.



# **107 Hottentot Teal**

Anas hottentota

Pato-hotentote

An uncommon breeding resident of inland waters with emergent vegetation which occurs in flocks of up to 20 birds. There are too few observations to establish with certainty whether there are seasonal movements. The population is estimated at 500 birds. Breeding may occur at any time of year (ASAB1: 132–133).



# **108 Redbilled Teal** *Anas erythrorhyncha* Pato-de-bico-vermelho

A common breeding resident on inland waters which usually occurs in flocks of up to 20 birds. The discontinuity across the border with South Africa is due to the relative scarcity of waterbodies to the east of the Libombo Mountains. During a survey of wetlands in September 1971, over 1000 birds were counted at Lake Nhangule (2433BC) (Milstein 1984). The population fluctuates from year to year, probably as a result of influxes from South Africa and Zimbabwe and may exceed 5000 birds at times. Three birds ringed at Barberspan, South Africa, and three ringed at Harare, Zimbabwe, have been recovered within the floodplain of the Inkomati River between 1968 and 1972 (all were killed by hunters). The dates of recoveries show no seasonal pattern (SAFRING). Breeding occurs mostly in late summer in southern Africa (ASAB1: 134–135) and was observed here in January.





# **113 Southern Pochard** *Netta erythrophthalma*

#### Zarro-africano

During a survey of wetlands in September 1971, Milstein (1984) reported 892 birds at Lake Marrangua (2434CB) and 600 at Lake Chuali (2532BB). Milstein (1984) also recorded that over 11 000 birds were counted at Lake Chuali in August 1969. During this survey, over 1000 birds were observed there in April 1995. At other localities, groups of no more than 20 birds were observed. It has previously been reported from the Maputo Elephant Reserve (2632DB) (Tello 1973). The greatest concentrations of birds occur during winter, and consist partly of birds taking refuge from dry conditions on the South African highveld (Milstein 1984). However, populations in South Africa are too small to account for concentrations such as that at Lake Chuali in 1969 and influxes from farther north are likely (ASAB1: 138-139). 24 birds ringed at Barberspan, South Africa (2625DA), and four ringed at Leeupan, South Africa (2628DB), have been recovered by hunters in the floodplains of the Inkomati and Limpopo Rivers between 1969 and 1973 (SAFRING). Most of the recoveries were in winter, but this may simply reflect the hunting season. Some birds are present throughout the year on freshwater lakes and breeding was observed in September. Breeding in southern Africa has been reported throughout the year (ASAB1: 138-139). The population exceeds 10 000 birds at times, but is usually less than half that number.

**114 Pygmy Goose** *Nettapus auritus* Pato-orelhudo

A common resident of inland waters with emergent vegetation, waterlilies Nymphaea sp. and Potamogeton sp. It occurs in pairs and in flocks numbering up to 50 birds. Dispersal to small temporary waterbodies takes place after heavy rains. Breeding was observed at such sites in March and April, which is consistent with the timing of breeding elsewhere in southern Africa (ASAB1: 144-145). During a survey of 14 of the larger wetlands in the region in September 1971, 20 birds were counted (Milstein 1984); larger numbers were observed at several of the same localities during this survey, indicating that dispersal to smaller temporary waterbodies had occurred by the time of the 1971 survey. 281 birds were counted on a lake near Zitundo (2632DB) in January 1998 (C. Bento). The population is estimated at 2000 birds. The quota set for the export of captured birds from Mozambique in 1997 was 3000 birds (CITES 1997).



# **115 Knobbilled Duck** *Sarkidiornis melanotos* Pato-de-carúncula

An uncommon breeding resident of inland waters within woodlands. It occurs in flocks which may number up to 100 birds. Concentration along the Limpopo River during dry periods (utilising stagnant pools when the river is not flowing) was noted, whereas the birds spread out into flooded areas after the rains. During a survey of 14 of the larger wetlands in southern Mozambique in September 1971, 375 birds were counted (Milstein 1984), showing that the larger freshwater lakes are not favoured. The species is believed to be migratory elsewhere in southern Africa, with part of the population travelling north of the equator in winter (ASAB1: 141-143). Although in this region there did not appear to be any large scale winter exodus, three birds ringed in Zimbabwe in March, April and September have been recovered in the floodplains of the Inkomati and Limpopo Rivers during September and October (SAFRING). The population is estimated at 3000 birds. Egglaving in southern Africa has been reported from January to April (ASAB1: 141-143).



# 116 Spurwinged Goose

*Plectropterus gambensis* Pato-ferrão

It is a common breeding resident of the larger inland wetlands and forages in surrounding grassland or crops. It occurs in flocks of up to 200 birds. It breeds in summer (egglaying in southern Africa has been reported from August to May) and is confined to large permanent waters for its winter moult (ASAB1: 146–147). The population is estimated at 5000 birds. There is no evidence for seasonal movements. The quota for the export of captive birds from Mozambique in 1997 was 5000 birds (CITES 1997).



#### 118 Secretarybird

#### Sagittarius serpentarius Secretário

The status of the species is uncertain. It is probably a breeding resident, occurring in pairs. It was encountered in grassland and light woodland. Its absence from *Acacia* savanna in the centre of the region is puzzling, as this would appear to be ideal habitat for the species. Direct persecution is a possible explanation. It was probably never numerous as much of the region is too densely wooded to suit it. Breeding in southern Africa has been reported throughout the year with a peak from July to January (ASAB1: 152–153). It has declined recently in South Africa (ASAB1: 152–153) and is threatened in this region.



#### **121 Hooded Vulture**

*Necrosyrtes monachus* Abutre-de-capuz

A rare resident, recorded twice in May in woodlands near the border with the Kruger National Park, South Africa. This is the only part of the region where populations of wild ungulates are sufficient to provide foraging opportunities for this species. Elsewhere game has been largely exterminated and livestock is scarce. It was formerly more widespread and was recorded from the Olifants River (2331DD) and Guija (2433AC) (Clancey 1996). The present population possibly does not exceed five breeding pairs, but is possibly augmented from time to time by visitors from the Kruger National Park. It has declined throughout southern Africa in recent times (ASAB1: 156–157) and is threatened in this region.



# **122** Cape Vulture *Gyps coprotheres* Abutre do Cabo

A breeding colony of 10 to 15 pairs exists in the Libombo Mountains close to the Swaziland border (2632AC). The birds forage mostly across the border in Swaziland, because foraging opportunities are limited in this part of Mozambique owing to a scarcity of game animals and livestock (Parker 1994b). Breeding occurs in winter and egglaying usually occurs in May (Mundy *et al.* 1992). It has declined in southern Africa, where it is endemic and is classed as vulnerable globally (Collar *et al.* 1994; ASAB1: 158–159). It is threatened in this region because the colony is vulnerable to human disturbance and the birds are sought by practitioners of traditional medicine. A powerline planned for construction in the near future will pass close to the colony but will not necessarily impact negatively on the birds.



#### **123** Whitebacked Vulture

*Gyps africanus* Abutre-de-dorso-branco

An uncommon breeding resident of woodlands where game animals occur in significant numbers. It was usually observed singly, but up to 20 birds were occasionally seen soaring. The recent armed conflict has resulted in a scarcity of game and livestock throughout the region, which in turn has caused a decline in numbers of this species. There is no evidence for seasonal movements. The present population may consist of fewer than 100 breeding pairs. Egglaying takes place from late April to June with a peak in May (Mundy *et al.* 1992). Prior to this survey it was reported as a rare visitor to the Maputo Elephant Reserve (2632BD) (Tello 1973).



# **124 Lappetfaced Vulture** *Torgos tracheliotus*

#### Abutre-real

A rare breeding resident of woodlands, occurring in pairs only where sufficient game animals ensure foraging opportunities. The recent armed conflict has resulted in a scarcity of game and livestock throughout the region, which in turn has caused a decline in numbers of this species. The present population may be fewer than 10 breeding pairs, but is probably augmented from time to time by visitors from the neighbouring Kruger National Park, South Africa. There is no evidence for seasonal movements. Prior to this survey it was reported as a rare visitor to the Maputo Elephant Reserve (2632BD) (Tello 1973). Egglaying takes place from late April to mid-August with a peak in May and June. The breeding cycle is up to 12 months in duration (Mundy *et al.* 1992). It has declined in southern Africa (Brooke 1984) and is threatened in this region.



#### 125 Whiteheaded Vulture

*Trigonoceps occipitalis* Abutre-de-cabeça-branca

An uncommon breeding resident of woodlands. It has been less affected by the shortage of game and livestock in the aftermath of the armed conflict than other vulture species because it feeds on carcasses of smaller animals (Mundy *et al.* 1992). Nevertheless it has probably declined and prior to this survey it was reported as a rare visitor to the Maputo Elephant Reserve (2632BD) (Tello 1973). It occurs in pairs. The population is estimated at 50 breeding pairs, about 10% of the southern African population (ASAB1: 164–165). There is no evidence for seasonal movements. Egglaying takes place from late May to late July (Mundy *et al.* 1992). It has declined in South Africa (ASAB1: 164–165).



# **126 Yellowbilled Kite** *Milvus migrans* Milhafre-preto

The form *M. m. parasitus* is a common intra-African summer migrant. As in the rest of southern Africa, the majority of the population are believed to be either nonbreeding birds or birds which breed elsewhere in Africa, with a small proportion breeding here (ASAB1: 166–167). It is usually seen singly but may gather in flocks of up to 10 birds at food sources. Arrivals begin in August and continue through September and October. Breeding probably commences in October (ASAB1: 166–167). Departure takes place in March with only a few stragglers still present into April. The population is estimated at 1000 birds. The form *M. m. migrans*, which is a nonbreeding Palearctic migrant, also occurs but is rare and was recorded only at Inhaca Island (2632BB) during this survey.



#### 127 Blackshouldered Kite

*Elanus caeruleus* Peneireiro-cinzento

A common breeding resident in any habitat where both trees and open spaces are present. It commonly occurs around cultivated lands and other man-made clearings. The concentration in the extreme northwest coincides with a major powerline. It avoids the most densely wooded regions. It is usually encountered singly. It is known to roost communally (ASAB1: 170–171) but communal roosts were not observed during this survey. It is nomadic and numbers fluctuate greatly wherever it occurs. Birds ringed in South Africa have been recovered in Mozambique (ASAB1: 170–171). It is far less numerous here than in South Africa, because of the relative scarcity of open spaces, powerlines and cultivated fields (ASAB1: 170–171). The population is estimated at 1000 birds. Breeding may occur at any time of year (ASAB1: 170– 171) and was observed in April.



## 128 Cuckoo Hawk

Aviceda cuculoides

Falcão-cuco

A common breeding resident of woodlands which occurs in pairs. It was probably overlooked at some localities because of its secretive habits. It was observed most frequently where pristine coastal vegetation occurs, but it was also found in arid parts of the interior. There is no evidence for seasonal movements. The population is estimated at 400 birds. Breeding occurs in midsummer (October to February) (ASAB1: 172).



# **130 Honey Buzzard** *Pernis apivorus*

Bútio-abelheiro

Single birds were seen at Namaacha (2532CC) in January 1997 (D. Allan) and at Mazivila (2433CC) in April 1998. These constitute the first records for Sul do Save, though Clancey (1996) claims that 'it obviously occurs in southern Mozambique quite regularly'. It is a Palearctic migrant to southern Africa and is readily overlooked because it is similar to the more common Steppe Buzzard.



# **131 Black Eagle** *Aquila verreauxii* Águia-preta

A rare breeding resident. It occurs in the northern part of the Libombo Mountain range where rocky hillsides provide suitable habitat for its main prey species, the rock hyrax *Procavia capensis*. It was observed at Macandazulo (2331BA) in August 1996. There are possibly fewer than five breeding pairs within the region. It does not occur in the Libombos south of the Komati River because the rock hyrax is absent there (Parker 1994a). The record from Namaacha (2532CC) by Herdam (1994) represents either a vagrant or a misidentification. Breeding occurs on rock ledges. The breeding cycle commences in winter with an egglaying peak in May and lasts for most of the year (Gargett 1990).





A rare breeding resident. It was observed singly and in pairs in woodlands and savanna. Its diet usually includes carrion and it occurs regularly only where large herbivores occur in significant numbers. Its numbers have declined greatly in recent years owing to the scarcity of game and livestock in the aftermath of the armed conflict. Prior to this survey it was reported from Chibuto (2433DA) (Clancey 1996). The population is estimated at 40 breeding pairs. Although records were concentrated in the winter months, it is not believed to undertake seasonal movements. It tends to be overlooked during summer owing to its close similarity to migratory Steppe and Lesser Spotted eagles. Breeding takes place in winter with an egglaying peak in May (ASAB1: 178–179). It has declined in South Africa and Namibia as a result of poisoning and hunting (ASAB1: 178–179) and is threatened in this region.



# **133 Steppe Eagle** *Aquila nipalensis* Águia-das-estepes

A rare nonbreeding Palearctic summer migrant which was observed singly in woodlands. It has not previously been recorded in the region, though Clancey (1996) stated that 'it must occasionally occur'. It occurs in large numbers farther west in South Africa, Botswana and Zimbabwe, where it follows the emergence of termite alates after rain, and is attracted to Redbilled Quelea colonies. Here it occurs only as a straggler and the number of birds in the region is unlikely to exceed 50. In this region it is outnumbered by the Lesser Spotted Eagle, while the reverse is true to the west in South Africa and Swaziland (Parker 1994a; ASAB1: 180). It was probably overlooked at some localities because it is very similar to other brown eagles. It has declined in part of its breeding range (Del Hoyo *et al.* 1994).



# **134 Lesser Spotted Eagle** *Aquila pomarina* Águia-pomarina

An uncommon nonbreeding Palearctic summer migrant. It was usually observed singly in woodland, but in December 1997 a flock of over 40 birds was present in recently ploughed lands near Chokwe (2433CA). It was recorded from November through to February. It is attracted by the emergence of termite alates after heavy rains and also to Redbilled Quelea breeding colonies (ASAB1: 181). It was probably overlooked at some localities owing to its close similarity to other brown eagles. Two birds were tracked by satellite telemetry from their breeding grounds in Europe to within Mozambique (Meyburg et al. 1995). One of the birds was at 23°59'S 31°58'E between 5 and 11 January 1995 and at 25°18'S 32°32'E from 11 to 17 January. The other was at 24°17'S 32°20'E from 9 to 15 January 1995 and in the near vicinity until 28 February. It is more numerous here than the Steppe Eagle, while the reverse is true to the west in South Africa and Swaziland (Parker 1994a; ASAB1: 181). The number of birds in the region could exceed 200 at times. It is believed to be declining in its breeding range in eastern Europe (Meyburg 1973).



# **135 Wahlberg's Eagle** *Aquila wahlbergi* Águia de Wahlberg

An uncommon breeding summer migrant which occurs in pairs in woodlands. It winters in north Africa (ASAB1: 182–183). First arrivals were observed in August and departure took place in March and April. There was one observation of an overwintering bird. Densities of from 1 breeding pair/18 km<sup>2</sup> to 1 breeding pair/9 km<sup>2</sup> in suitable habitat were estimated in the Northern Province, South Africa (Tarboton *et al.* 1987). The population is estimated at 4000 birds. Breeding commences soon after arrival and egglaying in southern Africa has been reported mostly from September to October (ASAB1: 182–183). It is believed to have declined in South Africa and Zimbabwe as a result of hunting and poisoning (ASAB1: 182–183).



# **136 Booted Eagle** *Hieraaetus pennatus* Águia-calçada

An uncommon nonbreeding visitor which was observed singly in woodland and savanna. There is no clear seasonal pattern to its occurrence. It is possible that the birds present in summer originate from the Palearctic and those present in winter may be visitors from breeding grounds in southern South Africa (ASAB1: 184–186). There may be up to 200 birds in the region at times.



# **137 African Hawk Eagle** *Hieraaetus spilogaster*

# Águia-dominó

An uncommon breeding resident of the more arid woodlands. It is usually encountered in pairs. It was observed in *Acacia* and mixed woodlands more often than in Mopane, although it is reported to favour Mopane woodland elsewhere in southern Africa (ASAB1: 188–189). It has surprisingly been overlooked in Sul do Save previously (Clancey 1996). Density estimates for the species in southern Africa range from 0.5 to 3.3 pairs/100 km<sup>2</sup> (ASAB1: 188–189), and the population in this region probably exceeds 1500 birds. The breeding cycle commences in midwinter (egglaying records in southern Africa span May to July) and extends until midsummer (ASAB1: 188–189).



**138 Ayres' Eagle** *Hieraaetus ayresii* Águia de Ayres

The few records suggest that it is an uncommon nonbreeding intra-African summer migrant to moist woodlands. However, the possibility that it breeds within the region cannot be ruled out (ASAB1: 187). Single birds were observed in March, April and December. It is likely to have been overlooked at some localities because it tends to remain hidden within the foliage. The population is unlikely to exceed 100 birds.



# **139 Longcrested Eagle** *Lophaetus occipitalis* Águia-de-penacho

An uncommon breeding resident of areas where moist woodlands, wetlands and open spaces are available. There is no evidence for seasonal movements. The population possibly does not exceed 100 birds. The species frequently exploits cultivated lands in neighbouring South Africa and Swaziland (Parker 1994a; ASAB1: 190–191), but not so in this region where agricultural practices are evidently less favourable to it (it was not observed among coconut and cashew plantations). It has probably declined along the coast north of Maputo where natural vegetation has been largely replaced. Breeding in southern Africa has been reported throughout the year with a summer peak (ASAB1: 190–191).





An uncommon breeding resident of light woodland and savanna. It occurs in pairs. Internest densities estimated in southern Africa range from 19.6 km to 11.7 km between breeding pairs (ASAB1: 192–193). The paucity of observations suggests that it has declined in the region, possibly as a result of direct persecution or as a result of scarcity due to human hunting of the mammals and gamebirds on which it preys. The population possibly does not exceed 200 birds. Egglaying in southern Africa has been reported mainly from April to June (ASAB1: 192–193). It has declined throughout southern Africa (Brooke 1984) and is threatened in this region.



#### 141 Crowned Eagle

#### Stephanoaetus coronatus Águia-coroada

A rare breeding resident of forest and dense woodlands which occurs in pairs. It appears to be restricted to three strongholds in the region: the Libombo Mountain range, the Maputo Elephant Reserve (2632BD), and an area of dense mixed woodland in the northeast (2134). Mean distances between breeding pairs in southern Africa have been estimated at from 2 to 19.5 km (ASAB1: 194–195). It has declined within the region as a result of destruction of natural forest along the coast (Parker 1995a). Breeding within southern Africa occurs mainly from August to March. Egglaying records span August to October with a September peak (ASAB1: 194–195). The population is estimated at 100 birds and it is threatened in this region.



#### 142 Brown Snake Eagle

*Circaetus cinereus* Águia-cobreira-castanha

An uncommon breeding resident of woodlands and savanna. It was observed singly. It is absent from the coast north of the Limpopo River mouth. There is no evidence for seasonal movements. The population may exceed 2000 birds. Breeding in southern Africa occurs from midsummer through to winter with an egglaying peak from December to March (ASAB1: 196–197).



#### 143 Blackbreasted Snake Eagle

#### *Circaetus pectoralis* Águia-cobreira-de-peito-preto

An uncommon breeding resident of grassland and savanna. It was observed singly. Communal roosting has been reported in South Africa and Zimbabwe (ASAB1: 198–199), but not in this region. It is possibly more common than previously in Maputo Province because the clearing of woodlands for charcoal has created a more open habitat which suits the species (Parker 1995a). Elsewhere in southern Africa there is some evidence for movements westward in the wet season and eastward in the dry season (ASAB1: 198–199), but there is no evidence for seasonal movements in this region. The population is estimated at 2000 birds. Breeding in southern Africa takes place mainly in the late dry season (August to November) and egglaying records span June to September (ASAB1: 198–199).



# 144 Southern Banded Snake Eagle

*Circaetus fasciolatus* Águia-cobreira-barrada

A rare breeding resident of forest fringes along the coast. It was not recorded north of Maputo (2532DC), where it has probably declined as a result of the destruction of natural forests. It occurs in pairs. It was probably overlooked at some localities because it tends to stay hidden within the canopy, but the population is unlikely to exceed 50 birds. There are too few records for conclusions about possible seasonal movements to be drawn. It is regarded as resident in the neighbouring part of South Africa and migratory elsewhere in Africa (ASAB1: 200). Breeding has been reported in South Africa in October and November (ASAB1: 200). It has declined in South Africa (ASAB1: 200), is classified as globally 'near threatened' (Collar *et al.* 1994) and is threatened in this region.



# 146 Bateleur

## *Terathopius ecaudatus* Águia-bailarina

A common breeding resident of woodlands and savanna where it occurs in pairs. It avoids the coast and other densely populated areas. The population probably exceeds 1600 birds. Breeding occurs from midsummer to early winter with an egglaying peak from January to March (ASAB1: 202–203). In South Africa the species has declined greatly as a result of indiscriminate poisoning aimed at other predators by livestock farmers (ASAB1: 202–203) and is classified as 'vulnerable' (Brooke 1984). Poisoning may become a problem in this region as livestock farming is intensified.



# **147 Palmnut Vulture** *Gypohierax angolensis*

Abutre-das-palmeiras

The species was observed only in the vicinities of Ponta do Ouro (2632DD), Chilembene (2532BD), Xai-Xai (2533BA) and Inhambane (2335CD). It inhabits coastal woodland and wetlands where kosi palms *Raphia australis* are present. It was found breeding at Manhica (2532BD) in 1955 (Clancey 1996). It has probably declined as a result of human population pressure and the removal of natural vegetation along the coast (Parker 1995a). There were too few observations for any pattern of seasonal movements to be apparent, but it was found to be resident in the neighbouring part of South Africa (ASAB1: 204). Breeding was not observed but probably occurs at the localities where it was reported. In South Africa, breeding commences in August to September (ASAB1: 204). The population may consist of fewer than 20 birds and it is threatened in this region.



# **148 African Fish Eagle** *Haliaeetus vocifer* Águia-pesqueira-africana

An uncommon breeding resident which was observed singly and in pairs. It occurs at most types of wetlands where perches are available at the waterside. It occurs in bays and estuaries but not along exposed coastlines. It is most often seen at permanent wetlands but occasionally occurs opportunistically at temporary wetlands in the process of drying up. Distances between breeding pairs at suitable habitat in southern Africa have been estimated at from 0.5 km up to 11 km (ASAB1: 205–207). The population is estimated at 500 birds. There is no evidence for seasonal movements. Breeding commences in winter (egglaying in southern Africa has been reported from April to August) and continues to early summer (ASAB1: 205-207).



#### 149 Steppe Buzzard

Buteo buteo Bútio-das-estepes

A common nonbreeding Palearctic summer migrant to woodlands. It is present from November to April. It is largely absent from the coast and from arid woodlands north of the Limpopo River. It was encountered singly. It is less numerous here than farther west in Swaziland and South Africa (Parker 1995a). A density of 7.7 birds/100 km<sup>2</sup> has been estimated in the Northern Province, South Africa (Tarboton & Allan 1984). The population in this region is unlikely to exceed 500 birds. It has declined in its breeding range in Eurasia (Cramp *et al.* 1980).


#### 152 Jackal Buzzard

#### *Buteo rufofuscus* Bútio-de-cauda-vermelha

An uncommon breeding resident of the Libombo Mountains south of the Inkomati River along the Swaziland border. It occurs in pairs. About 50 000 ha of habitat suitable for the species lies within Mozambique in this area. It has not previously been recorded in Mozambique (Parker 1995b; Clancey 1996). The population probably consists of fewer than 50 birds. Density estimates in the Northern Province, South Africa, range from 3.3 to 6 pairs/100 km<sup>2</sup> (Tarboton & Allan 1984). It breeds from late winter (with an egglaying peak from August to September) to early summer throughout its range (ASAB1: 212–213).



# 154 Lizard Buzzard

*Kaupifalco monogrammicus* Gavião-papa-lagartos

An uncommon breeding resident of woodlands where it was observed singly. It was encountered in moist woodlands more often than in arid woodlands. Elsewhere in southern Africa it is subject to complex patterns of seasonal movements which are not well understood (ASAB1: 216–217). In this region, the winter increase in reporting rates possibly reflects changes in behaviour and conspicuousness. The population probably exceeds 3000 birds. Breeding occurs in summer (ASAB1: 216–217).



## 156 Ovambo Sparrowhawk

Accipiter ovampensis Gavião do Ovambo

Single birds were observed at (2132DC) in April 1997 and (2232AA) in September 1997. It is possibly a breeding resident in the northwest. It is inconspicuous and difficult to identify, and may have been overlooked at some localities. It has previously been recorded from Namaacha (2532CC) (Clancey 1996).



#### **157 Little Sparrowhawk**

Accipiter minullus Gavião-pequeno

An uncommon breeding resident of woodlands, where it occurs in pairs. It is highly inconspicuous because it usually remains hidden within the foliage and is mostly silent. It is therefore likely that it was overlooked at some localities and it is not clear whether its distribution is continuous or not. There is no evidence for seasonal movements. Estimated densities in suitable habitat in South Africa range from 0.7 to 1.7 pairs/100 km<sup>2</sup> (Tarboton & Allan 1984). The population in this region is estimated at 1000 birds. Breeding within southern Africa occurs from September to February. Egglaying records span September to December with an October peak (ASAB1: 222–223).



#### **159 Little Banded Goshawk** *Accipiter badius* Gavião-shikra

An uncommon resident of woodlands where it occurs in pairs. Although it uses exposed sites more often than other accipiters, it is inconspicuous and was probably overlooked at some localities. Estimated densities in South Africa range from 0.9 to 2 pairs/km<sup>2</sup> (Tarboton & Allan 1984). The population in this region probably exceeds 1000 birds. There were not enough observations for a clear pattern of seasonal movements to appear, but the species is resident with some nomadism in the neighbouring regions (ASAB1: 226–227). Egglaying records in southern Africa span August to April with an October peak (ASAB1: 226–227) and breeding was observed here in January.



### **160 African Goshawk** *Accipiter tachiro* Açor-africano

An uncommon breeding resident of woodland and forest where it occurs in pairs. A gap in its distribution in the south coincides with the Inkomati and Limpopo River floodplains. Its distinctive and frequently uttered calls render it more conspicuous than other accipiters. The population in this region is estimated at 2000 birds. Egglaying in the neighbouring part of South Africa was reported from September to November with a peak in November (ASAB1: 228–229).



## **161 Gabar Goshawk** *Micronisus gabar* Açor-palrador

An uncommon breeding resident of *Acacia* woodlands and savanna where it occurs in pairs. It is probably more wide-spread than indicated as it is easily overlooked. Densities of at least 0.3 pairs/100 km<sup>2</sup> have been estimated elsewhere in southern Africa (Simmons 1994). There is no evidence for seasonal movements. The population in this region is estimated at 200 birds. Breeding within southern Africa occurs from August to January with a peak in October and November (egglaying records show a September to November peak) (ASAB1: 230–231).



#### **163 Dark Chanting Goshawk**

*Melierax metabates* Açor-cantor-escuro

A common breeding resident of woodlands. Its absence from the densely populated coastal regions may be due to habitat loss and direct persecution. It occurs in pairs. Densities elsewhere in southern Africa have been estimated at from 0.2 to 2 pairs/100 km<sup>2</sup> (Simmons 1994). The population in this region is estimated at 2000 birds. The fluctuations in reporting rates mirror similar trends in South Africa and Zimbabwe and are probably due to differences in conspicuousness between the breeding and nonbreeding seasons rather than to seasonal movements (ASAB1: 234–235). Breeding occurs from August to December (ASAB1: 234–235).



#### 165 African Marsh Harrier

Circus ranivorus

Tartaranhão-dos-pântanos

An uncommon breeding resident of marshlands, where it was observed singly. There is no evidence for seasonal movements. Breeding densities of up to 8 pairs/10 km<sup>2</sup> have been estimated in southern Africa (ASAB1: 236–237). The population in this region may exceed 1000 birds. Breeding probably takes place from September to December as in South Africa (ASAB1: 236–237). It is believed to have declined in South Africa (ASAB1: 236–237).



#### 166 Montagu's Harrier

*Circus pygargus* Tartaranhão-caçador

A rare nonbreeding Palearctic summer migrant. Groups of five to 10 birds were seen in fallow lands near Goba (2632AA) in January 1995, in grassland in the dry bed of the dam at Massingir (2331DD) in December 1994 (this locality has been underwater since late 1995) and in grassland at (2233BB) in March 1996. The number of birds visiting the region is unlikely to exceed 100. It has declined in parts of its breeding range (ASAB1: 239).



## **169 Gymnogene** *Polyboroides typus*

Secretário-pequeno

A common breeding resident of woodlands, where it was observed singly. The population probably exceeds 1000 birds. Densities of from 4 to 5.3 pairs/100 km<sup>2</sup> have been estimated in South Africa (Tarboton & Allan 1984). Egglaying in southern Africa has been reported from August to December with a peak from September to October (ASAB1: 244–245).



**170 Osprey** *Pandion haliaetus* Águia-pesqueira

An uncommon nonbreeding Palearctic summer migrant. It was seen singly, most often at bays and estuaries along the coast and also at large inland waterbodies. Nonbreeding birds tend to arrive early and leave late and may overwinter, resulting in records in most months of the year (ASAB1: 246). The number of birds reaching this region probably exceeds 50.



## **171 Peregrine Falcon** *Falco peregrinus*

#### Falcão-peregrino

This species is a rare breeding resident on cliffs in the Libombo Mountains in the south and possibly on buildings in the city of Maputo (2532DC). Elsewhere in the region, breeding sites are not available, and the birds seen were either Palearctic migrants or nonbreeding visitors from elsewhere in southern Africa. It was observed singly and in pairs. The breeding population may be fewer than 10 pairs, while nonbreeding visitors may swell the numbers in the region to over 100. Egglaying has been reported from August and September in the neighbouring regions (ASAB1: 250–251).



### **172 Lanner Falcon** *Falco biarmicus* Falcão-alfaneque

A rare breeding resident of woodlands; it was observed singly. Most records were close to the Libombo Mountains, where cliffs provide nest sites. At Massingir (2332CC) and Corumana (2532AA), birds were seen in the vicinity of the dam walls which may provide nest sites. There were too few observations for any pattern of seasonal movements to be apparent. The population is unlikely to exceed 50 birds. Clancey (1996) described it as a 'regular but uncommon nomad', without mentioning any records in this region. Egglaying within southern Africa has been reported from June to November with a peak from July to August (ASAB1: 247–248).



## 173 Hobby Falcon

#### *Falco subbuteo* Falcão-tagarote

An uncommon nonbreeding Palearctic summer migrant. It inhabits woodlands with clearings. It was observed from November to February in groups of up to five birds. The paucity of records is partly due to the fact that the species is only present for a short period, and some grid cells were not visited during that time. The number of birds in the region possibly exceeds 50 at times. It has not previously been recorded in the region (see Clancey 1996).



#### **175 Sooty Falcon** *Falco concolor* Falcão-sombrio

An uncommon nonbreeding summer migrant from the eastern Sahara Desert and Arabian Peninsula to coastal woodlands. It was observed singly from January to April, most often in the vicinity of mangrove swamps in bays and estuaries. It has not previously been recorded in the region (Parker 1995b), although Clancey (1996) stated that it 'must occur'. It may have become more common along the east coast in recent times (ASAB1: 255). The number of birds in the region possibly exceeds 100 at times.



## 177 Eleonora's Falcon

#### Falco eleonorae

Falcão-da-rainha

A sighting of a bird at Bazaruto (2135CB) in January 1996 has been ratified by the Rarities Committee of BirdLife South Africa (Hockey *et al.* 1997). Other reports from Vilanculos (2135CD) and Pomene (2235DC) were not ratified (Parker 1995b). It is possibly a regular nonbreeding summer migrant to the coastline and islands.



#### **178 Rednecked Falcon**

*Falco chicquera* Falcão-de-nuca-vermelha

A bird was seen in savanna at the Save River near Nova Mambone (2134BB) in July 1996. It has not previously been recorded south of the Save River (Clancey 1996).



#### 179 Western Redfooted Kestrel

#### *Falco vespertinus*

Falcão-de-pés-vermelhos-ocidental

A rare nonbreeding Palearctic summer migrant. A female was observed on Inhaca Island (2632BB) in the company of Eastern Redfooted Kestrels in January 1997 (De Boer & Bento 1999). Although not reported by Clancey (1996), the species had previously been reported from Maputo (2532DC) by Herdam (1994). Its main nonbreeding grounds are to the west in Namibia and Botswana (ASAB1: 260–261), and only vagrants arrive as far east as Mozambique.



#### 180 Eastern Redfooted Kestrel

*Falco amurensis* Falcão-de-pés-vermelhos-oriental

An uncommon nonbreeding Palearctic summer migrant to grasslands and savanna. It was observed during January and February, singly and in flocks of up to 10 birds. Its main nonbreeding grounds are in the grasslands of central South Africa (ASAB1: 262–263) and relatively small numbers (possibly no more than 200) visit the more wooded environment of this region.



#### 181 Rock Kestrel

*Falco tinnunculus* Peneireiro-vulgar

It is possibly a rare breeding resident on cliffs in the Libombo Mountains along the frontier with South Africa. Sightings elsewhere represent nonbreeding visitors. It was observed singly.



## **183 Lesser Kestrel** Falco naumanni

erally.

Peneireiro-das-torres A rare nonbreeding Palearctic summer migrant to grassland and savanna. More than 20 birds were observed near Massingir (2331DD) in December 1994. The main nonbreeding grounds of the species lie in the grasslands of central South Africa and it is expected only as a straggler this far east (ASAB1: 268– 269). It has not previously been recorded in Mozambique, although Clancey (1996) stated that it 'must occur'. It is regarded as globally threatened owing to declines in its breeding range (Collar *et al.* 1994). It does not represent a con-

servation priority in this region because it occurs only periph-



#### **185 Dickinson's Kestrel** *Falco dickinsoni*

Falcão de Dickinson

An uncommon breeding resident of broadleaved woodland. It occurs in pairs and was most often seen in the vicinity of large Baobab *Adonsonia digitata* trees. The population probably exceeds 500 birds. Elsewhere in southern Africa, a winter influx from farther north has been postulated (ASAB1: 272–273), but in this region there is no clear evidence for seasonal movements. Breeding within southern Africa takes place in early summer, with egglaying records spanning September to November (ASAB1: 272–273).



## **188 Coqui Francolin** *Francolinus coqui* Perdiz-das-pedras

A common resident of the more open woodlands and savanna. It was encountered more often in Mopane woodlands than in other woodland types. The northwest population which occurs in arid woodland and savanna appears to be separated from the coastal population which occurs in broadleaved savannas. It occurs in pairs and family groups of up to 10 birds. A density of 15 birds/100 ha was estimated at one locality in the Northern Province, South Africa (Tarboton *et al.* 1987). The population probably exceeds 2000 birds. Breeding may occur at any time with a midsummer peak (ASAB1: 276–277).



#### **189** Crested Francolin

#### *Francolinus sephaena* Perdiz-de-crista

A common resident of woodland which occurs in pairs and family groups of up to 10 birds. It is most numerous in *Acacia* woodlands and least numerous in miombo woodlands. It is absent only from the most densely populated parts of the coastal region. In South Africa, densities of 48 birds/100 ha in *Acacia* woodland and 7.4 birds/100 ha in broadleaved woodland were estimated (Tarboton *et al.* 1987). The population probably exceeds two million birds. Breeding is most likely to occur from October to May (ASAB1: 278–279) and chicks were observed in April, May, July and December.

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha	27	17	<5	13

For explanation of tables, see Explanation of Species Accounts on p. xxiv.



## 191 Shelley's Francolin

*Francolinus shelleyi* Perdiz de Shelley

A common resident of savanna and light woodlands, where it occurs in pairs and family groups of up to 10 birds. It is absent from arid woodlands and tends to prefer more open habitats than the Coqui Francolin, although there is some overlap. Breeding is likely to be concentrated in midsummer (ASAB1: 282–283). The population probably exceeds 2000 birds.



## **196 Natal Francolin** *Francolinus natalensis*

#### Perdiz do Natal

An uncommon resident of woodlands, where it occurs in pairs and family groups of up to 10 birds. It avoids the flat sandy plains which cover most of the region and is found in hilly terrain around the frontiers. The seemingly isolated record in the northeast could be continuous with a population north of the Save River. The population probably exceeds 1500 birds. Egglaying in the Northern Province, South Africa, has been reported from December to September with a peak in April and May (Tarboton *et al.* 1987).



#### **198 Rednecked Francolin**

*Francolinus afer* Perdiz-de-gola-vermelha

A common resident which occurs mostly in grassland, cultivated fields and marshes around the edges of dense woodland and forest. It was encountered in pairs and family groups of up to 10 birds. Its distribution is mostly coastal, extending inland along the Limpopo River, and it does not overlap with Swainson's Francolin, which replaces it in the more arid parts of the region. Overlap has been reported in other parts of southern Africa (ASAB1: 294–295). Breeding is likely to occur from mid- to late summer (ASAB1: 294–295). The population probably exceeds 200 000 birds. It has been adversely affected only to a small extent by the removal of natural vegetation along the coast and has on the other hand benefited by exploiting cultivated lands.



#### **199 Swainson's Francolin**

#### *Francolinus swainsonii* Perdiz de Swainson

An uncommon resident of arid savannas, where it occurs in pairs and family groups of up to 10 birds. It replaces the similar Rednecked Francolin in the drier west of the region. The population probably exceeds 1000 birds. Egglaying in southern Africa occurs in all months with a peak from February to April (ASAB1: 296–297). It readily exploits cultivated lands, but because cultivation is limited within its range in this region, this has not led to a significant increase in numbers.



## **200 Common Quail** *Coturnix coturnix* Codorniz-comum

An uncommon species which is probably a breeding resident in grassland and savanna. It is more common to the west in the grasslands of South Africa (ASAB1: 299), and occurs only peripherally here. It is inconspicuous because it tends to remain hidden in the grass and was probably overlooked at a number of localities. It was encountered singly. Breeding is likely to occur from mid- to late summer (ASAB1: 299–301).



## **201 Harlequin Quail** *Coturnix delegorguei* Codorniz-arlequim

This species is easily overlooked because it remains hidden in the grass until flushed and is probably more widespread than indicated. It is possibly a breeding summer migrant but may be present in low numbers during winter. It is found in arid woodlands, grassland and marshes and was encountered singly and in pairs. It is irruptive and was particularly numerous in the extreme west of the region during January 1997, after heavy rains. Within southern Africa breeding occurs mostly in January and February (ASAB1: 302–303). The population may exceed 5000 birds at times.



#### **203 Helmeted Guineafowl**

*Numida meleagris* Galinha-do-mato

A common resident of most habitats including cultivated lands but excluding forests. It persists in populated areas despite hunting pressure. When breeding it occurs in pairs and family groups but at other times congregates in flocks of up to 100 birds. Breeding may occur throughout the summer but is responsive to rainfall (ASAB1: 308–309). The population probably exceeds 100 000 birds.



## 204 Crested Guineafowl

#### *Guttera pucherani* Galinha-do-mato-de-crista

A common resident of dense woodlands. Over much of its range it does not appear to be significantly affected by hunting pressure, but this could account for its absence in densely populated coastal areas. It sometimes occurs in the same habitat as the Helmeted Guineafowl but usually prefers denser woodland and does not exploit cultivated lands. When breeding it occurs in pairs and family groups but at other times congregates in flocks of up to 100 birds. The population in the extreme south is separated from the northern population by the floodplains of the Inkomati and Limpopo Rivers. The combined population probably exceeds 20 000 birds. Egglaying has been reported from October to February in South Africa and Zimbabwe (ASAB1: 310–311). Breeding was observed in November, February and March.



#### 205 Kurrichane Buttonquail

*Turnis sylvatica* Toirão-comum

A common breeding resident of grassland, savanna and light woodland where it occurs singly and in pairs. It avoids both the denser and the most arid woodlands. The population probably exceeds 10 000 birds. Breeding is likely to occur from December to April (ASAB1: 306–307).



#### 206 Blackrumped Buttonquail

#### *Turnis hottentotta* Toirão-hotentote

An uncommon resident of moist grasslands which occurs singly and in pairs. It may overlap with the Kurrichane Buttonquail at some localities, though that species prefers drier grasslands. It is easily overlooked because it remains hidden in the grass until flushed and then provides the observer with only a brief glimpse which is often insufficient for positive identification. It is therefore likely to be more widespread than indicated. The population probably exceeds 1000 birds. Breeding occurs throughout the summer (ASAB1: 305). There is uncertainty about the status of this species throughout southern Africa because it is very difficult to observe, and it is possibly threatened (Brooke 1984; ASAB1: 305).



## **207 Wattled Crane** *Bugeranus carunculatus*

Grou-carunculado

Two birds were seen in marshland in the Banhine National Park (2233CB) in July 1998 (J. Anderson). Breeding occurs regularly in the Zambezi River Delta, central Mozambique (Beilfuss & Allan 1996), and nonbreeding birds can be expected to disperse into this region occasionally. Reports of breeding at the Save River mouth remain unconfirmed (Clancey 1996).



## **209 Crowned Crane** *Balearica regulorum* Grou-coroado-austral

A single bird was seen in the Maputo Elephant Reserve (2632DB) in November 1997. A bird was seen at the same locality during May 1997 and it is possible that at least one pair is resident in an area which is inaccessible by road. Prior to this survey, the species was recorded at Zinave (2133BD) (Clancey 1996). Attempts have been made by the cage-bird trade to obtain permits to capture the birds seen in the elephant reserve, showing that it is vulnerable to persecution. It has declined in southern Africa and should be regarded as threat-ened in South Africa and Namibia (ASAB1: 316–317), although it was not listed as such by Brooke (1984). It is threatened in this region.



### **210 African Rail** *Rallus caerulescens* Frango-de-água-africano

An uncommon resident of reedbeds and other dense vegetation in marshlands. It occurs singly and in pairs. It is easily overlooked because it remains hidden in the reeds and is probably more widespread than indicated. Densities of 1–4 pairs/ha in suitable habitat have been estimated in southern Africa (Taylor 1997). The population probably exceeds 1000 birds. There are too few observations for conclusions about seasonal movements to be made, but it is regarded as resident throughout southern Africa (ASAB1: 318–319). Breeding is mostly in summer but could also occur in winter (ASAB1: 318–319).



## 211 Corncrake

#### *Crex crex* Codornizão-europeu

An uncommon nonbreeding Palearctic summer migrant. A single bird was seen in marshland near Marao (2434AD) in March 1996. It was probably overlooked at some localities because it tends to remain hidden in long grass. It can be expected in dry grasslands and cultivated lands, as well as marshland (Taylor 1997). It is globally threatened owing to habitat loss in its breeding grounds (Collar *et al.* 1994) but is not threatened on its African nonbreeding grounds (ASAB1: 324).



## 212 African Crake

*Crex egregia* Codornizão-africano

It was observed once in a marshy area on the Limpopo River floodplain (2433DC) in September 1997, but is likely to be more widespread. It is easily overlooked owing to its secretive habits. It is probably a breeding summer migrant to marshes and grassland, as in the neighbouring parts of South Africa (ASAB1: 320–321).



#### **213 Black Crake**

#### Amaurornis flavirostris Franga-de-água-preta

A common resident of freshwater wetlands with reedbeds or other emergent, floating or dense fringing vegetation. It is largely sedentary in southern Africa (ASAB1: 322–323) and there is no evidence for seasonal movements in this region. It is usually encountered in pairs. Densities of 1–3 pairs/ha in suitable habitat have been estimated in southern Africa (Taylor 1997). The population probably exceeds 5000 birds. Breeding occurs throughout the year with a peak in summer (ASAB1: 322–323).



#### **217 Redchested Flufftail**

Sarothrura rufa

Frango-de-água-de-peito-vermelho

A common resident of marshlands with reedbeds and other dense vegetation. It occurs in pairs. It usually remains hidden and is detected by its vocalizations. Densities of 2–4 pairs/ha in suitable habitat have been estimated in southern Africa (Taylor 1997). The population probably exceeds 1000 birds. There is no evidence for seasonal movements anywhere in its range (ASAB1: 328–329), and fluctuations in its reporting rates here are probably due to reduced vocalizations when not breeding. It has not previously been reported within the region (Clancey 1996). Breeding occurs throughout the rainy season (ASAB1: 328–329).



## 218 Buffspotted Flufftail

## Sarothrura elegans Frango-de-água-elegante

It was encountered in riverine woodland near Catuane (2632CD) in December 1997. Previously reported from Maputo (2532DC) (Clancey 1996) and was probably overlooked at several localities in the moister parts of the region because it tends to remain hidden in dense vegetation. In keeping with its status in South Africa, it could be a resident or a seasonal visitor to this region, breeding during the rainy season (ASAB1: 330–331).



## **223 Purple Gallinule** *Porphyrio porphyrio* Caimão-comum

A common breeding resident of freshwater wetlands with slow flowing or still water and with reedbeds or other dense overhanging or fringing vegetation (Taylor 1997). It was encountered singly or in groups of up to 10 birds. A density of 1 pair/2.5 ha in suitable habitat has been estimated in southern Africa (Taylor 1997). The population probably exceeds 1000 birds. It does not undertake any regular migrations, but movements in response to changing conditions are typical (ASAB1: 336–337). Breeding occurs mainly in summer but probably throughout the year (ASAB1: 336–337).



## **224 Lesser Gallinule** *Porphyrula alleni* Caimão de Allen

A rare intra-African migrant, seen on small fresh water ponds with floating vegetation. It is present and breeds during the rainy season and winters farther north in the tropics (ASAB1: 335). Newly fledged young were observed at (2132DD) in April 1996. Other observations were near the Limpopo River mouth (2533AB) in January 1996 and at Ponta Douro (2632DD) in December 1998 (at least two birds were present on each occasion). It was probably overlooked at some localities because of the inaccessibility of some wetlands. The population possibly exceeds 200 birds. It has not previously been recorded in the region, although Clancey (1996) described it as 'probably quite widespread'.



**226 Moorhen** *Gallinula chloropus* Galinha-de-água

An uncommon breeding resident on permanent open waters with reedbeds. It was observed in pairs. The population probably exceeds 300 birds. Breeding may occur throughout the year with a peak during the rainy season (ASAB1: 338–339) and was observed in September. In South Africa the species has benefited from the establishment of artificial waterbodies (ASAB1: 338–339), while in this region its status has probably not changed significantly.



## **227 Lesser Moorhen** *Gallinula angulata* Galinha-de-água-pequena

A rare breeding summer migrant, recorded once near Lake Chuali (2532BB) in February 1995. It was probably overlooked at some localities because its preferred habitat is often inaccessible. It can be expected in temporary marshlands with emergent vegetation (Taylor 1997). Prior to this survey it was recorded from the Futi Channell (2632DA) (Tello 1973).



#### 228 Redknobbed Coot

*Fulica cristata* Galeirão-de-crista

An uncommon breeding resident which occurs on a few of the larger fresh waterbodies. It occurs in loose flocks which occasionally number hundreds of birds and is nomadic in response to changing water-levels. Over 2000 birds were counted at Lake Marrangua in September 1971 (Milstein 1984) and similar numbers were observed there during this survey. During April 1995, over 1000 birds were present at Lake Chuali (2532BB), but none were present during subsequent visits to the locality, when water-levels were higher. Two birds ringed in South Africa (Barberspan (2635DA) and Marble Hall (2429CD)) were recovered at Lake Chuali (2532BB) in October and December 1970 (SAFRING). The population may exceed 10 000 at times. Breeding was observed in September and is likely to occur in any month with an early summer peak (ASAB1: 342-343). Exploitation of artificial wetlands has allowed the species to increase in South Africa and Zimbabwe but probably no change to its status has occurred in this region other than fluctuations in response to varying rainfall.



### **229 African Finfoot** *Podica senegalensis* Pés-de-barbatanas

A rare resident on relatively fast flowing, permanent rivers and streams with overhanging vegetation. Single birds were seen on the Umbuluzi River (2632AA) in January 1995 and on the Inkomati River near Sabie (2532AD) in January 1997. The amount of suitable habitat available is limited and there are probably fewer than 100 birds in the region. Breeding may occur at any time but is most likely in summer (ASAB1: 344– 345). The species has declined in South Africa owing to degradation of rivers and riverine vegetation (ASAB1: 344–345) and it could become threatened in this region if settlement and cultivation along the rivers where it occurs should increase.



## **230 Kori Bustard** *Ardeotis kori* Abetarda-gigante

A rare breeding resident of *Acacia* savanna where it was observed singly near Mapolongoene (2432AC) in September 1995 and near Macandazulo (2331BC) in November 1996. It has suffered from hunting pressure and probably numbers fewer than 100 birds. Prior to this survey it was reported from Vista Alegre (2632AC), Incomati (2532BA) and Chibuto (2433DA) (Clancey 1996), but it no longer occurs at these localities. Breeding has been reported throughout the year in southern Africa, except for late winter (July to September) (ASAB1: 346–347). It has declined throughout southern Africa (ASAB1: 346–347), is listed as 'vulnerable' in South Africa (Brooke 1984) and is threatened in this region.



### **231 Stanley's Bustard** *Neotis denhami*

#### Abetarda-real

This species was encountered singly in coastal grasslands near Ponta Douro (2632DD) in March and September 1995. It is not clear whether it is a nonbreeding visitor from the neighbouring part of South Africa or a breeding resident. Its presence during summer suggests the latter. The total population is probably fewer than 30 birds. In the neighbouring regions of South Africa, it breeds during summer with a December peak (ASAB1: 348–349). It has declined in South Africa (ASAB1: 348–349) and is classified as 'vulnerable' there (Brooke 1984). It is threatened in this region as a result of hunting pressure.



#### 237 Redcrested Korhaan

*Eupodotis ruficrista* Abetarda-de-crista

A very common breeding resident in arid woodland and savanna. It was encountered singly. The population probably exceeds 200 000 birds. In South Africa, densities of 2 birds/ 100 ha in *Acacia* woodland and 4 birds/100 ha in broadleaved woodland were estimated (Tarboton *et al.* 1987). Density estimates in this region confirm its preference for broadleaved woodland over *Acacia*. Elsewhere in southern Africa, breeding has been recorded throughout the year with a peak in summer (ASAB1: 364–365).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	<5	<5	<5	6



### **238 Blackbellied Korhaan** *Eupodotis melanogaster* Abetarda-de-barriga-preta

An uncommon resident of the moister grasslands, marshes and savanna. It was encountered singly. There appear to be three areas of concentration: the moist grasslands of Maputaland in the extreme south, the Limpopo River floodplain, and an area of broadleaved savanna in the northeast. It is inconspicuous because it remains hidden in long grass much of the time and was probably overlooked at some localities. Its population has probably declined owing to human population pressures along the coast. Although there were too few observations to reveal any seasonal movements, it is believed to be sedentary, as in South Africa and Swaziland (Parker 1994a; ASAB1: 366-367). The impression of Clancey (1996) that this was the most common korhaan in the region is both an indication that the species was formerly more numerous and that previous observers concentrated their efforts near the coast. The population probably exceeds 1000 birds.



### **240 African Jacana** *Actophilornis africanus* Jacana

A common resident on freshwater wetlands with emergent vegetation. It is most numerous on the floodplain of the Limpopo River and was seen in concentrations of up to 100 birds. There are no regular seasonal movements. Although birds are always present at some wetlands, they are nomadic and utilise temporary wetlands when conditions are favourable. The population probably exceeds 10 000 birds. To the south in KwaZulu-Natal, breeding takes place in summer only, while to the north in Zimbabwe, breeding occurs throughout the year with a summer peak (ASAB1: 368–369).



## **241 Lesser Jacana** *Microparra capensis*

#### Jacana-pequena

A rare resident on freshwater wetlands with emergent vegetation. It was observed singly. It is inconspicuous and is likely to occur at wetlands which are inaccessible and therefore is probably more widespread than indicated. It usually occurs in shallower waters than the African Jacana, but may sometimes occupy the same wetlands. There were too few observations to establish whether there is a seasonal pattern to its presence. It is probably nomadic and a summer breeder, as elsewhere in southern Africa (ASAB1: 370–371). The population probably exceeds 100 birds. It is likely to have declined, as in South Africa (ASAB1: 370–371), because of disturbance at wetlands and is threatened in this region.



## **242 Painted Snipe** *Rostratula benghalensis* Narceja-pintada

A rare resident of open fresh waters with shallow margins and mudflats. It was observed singly and in pairs. It is nomadic and exploits temporary wetlands. The population probably exceeds 100 birds. The timing of breeding is variable but usually follows the rainy season (ASAB1: 372–373). It has probably declined because of disturbance of wetlands and is threatened in this region.



#### 243 European Oystercatcher

Haematopus ostralegus

Ostraceiro-europeu

A rare nonbreeding Palearctic summer migrant which has been observed several times in different years on the shores of Bazaruto Island (2135CB) in groups of up to six birds and once on Inhaca Island (2632BB) in December 1996 (De Boer & Bento 1999). It was also reported on Bazaruto Island prior to this survey (Wheeler & Brooke 1961).



### 244 African Black Oystercatcher

Haematopus moquini Ostraceiro-preto-africano

A bird was seen at Inhaca Island (2632BB) in December 1996 (De Boer & Bento 1999). It is resident along the coast of South Africa and juveniles may disperse beyond its normal range (ASAB1: 374–375). It has not previously been reported in Mozambique.



### **245 Ringed Plover** *Charadrius hiaticula*

Borrelho-grande-de-coleira

A common nonbreeding Palearctic summer migrant with some birds overwintering. It occurs most commonly in the intertidal mudflats in bays and estuaries, but is also seen in numbers at some inland wetlands with extensive mudflats. It gathers in flocks of up to a hundred birds. More than 140 birds were counted on the Bazaruto Archipelago (2135C) in January 1996 and 1997 (P. & U. Kohler). The number of birds visiting this region possibly exceeds the 5500 birds estimated for the rest of southern Africa (ASAB1: 376–377).



#### 246 Whitefronted Plover

*Charadrius marginatus* Borrelho-de-fronte-branca

A common resident on beaches along the coastline. It also occurs uncommonly on sand banks along the Limpopo and Save Rivers, where its occurrence is irregular because it is absent when the rivers are in flood. Birds occurring along the rivers are reputedly of the race *C. m. mechowi*, while those resident on the coast are of the race *C. m. arenaceus* (Clancey 1971b). It was encountered in pairs. It has been speculated that birds along the major rivers in southern Africa migrate to the Mozambican coast in summer (ASAB1: 378–379). The fluctuations in reporting rates do not show evidence for or against that hypothesis. 55 birds were counted on the Bazaruto Archipelago (2135C) in January 1998 (U. & P. Kohler). The population probably exceeds 2000 birds. Breeding may occur throughout the year (ASAB1: 378–379) and was observed in January and July.



#### 247 Chestnutbanded Plover

*Charadrius pallidus* Borrelho-de-colar-arruivado

Probably a nonbreeding visitor, reported singly and in pairs at bays and freshwater lakes. It may have been overlooked at some localities.



### **248 Kittlitz's Plover** *Charadrius pecuarius* Borrelho de Kittlitz

A common resident of the intertidal zone in bays and estuaries and more commonly at inland wetlands with shallows and mudflats. It is frequently observed in short grass on dry land and even on tar roads near wetlands. It occurs in flocks of up to 20 birds. The population probably exceeds 5000 birds. There is no clear evidence for regular seasonal movements, but it is nomadic in response to changing conditions. Breeding was observed in October and November, and in the neighbouring regions breeding may occur at any time but peaks in early summer (ASAB1: 382–383).



## **249 Threebanded Plover** *Charadrius tricollaris* Borrelho-de-três-golas

A common resident which may occur at any freshwater wetland with an open shoreline. It is usually encountered singly or in pairs. The map shows a sharp drop in density of the species across the western border with South Africa and Swaziland. This is because the border coincides with the Libombo Mountain range which has the effect of concentrating eastward-flowing watercourses into a few major rivers so that less wetland habitat is available to the east of the range. Breeding was observed in August. Breeding in the neighbouring regions occurs throughout the year with an early summer peak (ASAB1: 384-385). The population may exceed 3000 birds. There is no clear evidence for seasonal movements, but the fluctuation in reporting rates would not necessarily reflect changes in density. The species has increased elsewhere in southern Africa as a result of dam construction (ASAB1: 384-385) but its status in this region has probably not changed significantly.



### **250 Mongolian Plover** *Charadrius mongolus* Borrelho-mongol

A nonbreeding Palearctic summer migrant which has been recorded in bays at Inhaca (2632BB) and Bazaruto (2135CB) Islands. 476 birds were counted in the Bazaruto Archipelago during January 1998 (U. & P. Kohler). It has probably been overlooked at other localities because it is easily confused with the Sand Plover.



#### **251 Sand Plover**

#### *Charadrius leschenaultii* Borrelho-da-areia

An uncommon nonbreeding Palearctic summer migrant. It occurs in bays and estuaries, either singly or in flocks which may occasionally number hundreds. Over 400 birds were counted at Ponta da Barra (2335CD) in February 1997. The numbers visiting this region could exceed 2000, representing about 1% of the world population (Rose & Scott 1994) and greatly outnumbering the population along the rest of the southern African coast (ASAB1: 386).



## **252 Caspian Plover** *Charadrius asiaticus* Borrelho do Cáspio

A single bird was seen on the banks of the Save River at Zinave (2133BD) in October 1997. There is a previous record from Maputo (Clancey 1996). It occurs in dryland habitats to the west and north as a nonbreeding summer migrant from the Palearctic (ASAB1: 387) and only stragglers reach this region.



## **254 Grey Plover** *Pluvialis squatarola* Tarambola-cinzenta

A common nonbreeding Palearctic summer migrant with regular overwintering by nonbreeding birds. It occurs in bays and estuaries with intertidal mudflats, usually in small groups but occasionally in flocks which number hundreds. Over 2000 birds were counted on the Bazaruto Archipelago (2135CB,D) in January 1997 (U. & P. Kohler) and over 900 on Inhaca Island (2632BB) during the same month (F. de Boer). Numbers visiting this region probably exceed 10 000 birds, representing over 4% of the Palearctic breeding population (Rose & Scott 1994).



## 255 Crowned Plover

Vanellus coronatus Tarambola-coroada

A common resident of the more arid grasslands and savannas. It occurs in flocks of up to 20 birds. Breeding was observed in July and may occur throughout the year with a peak in early summer (ASAB1: 390–391). The population probably exceeds 4000 birds. There is some evidence for movements across southern Africa from west to east in the dry season (ASAB1: 390–391) and this is supported by the winter peak in reporting rates here. There is no evidence for seasonal movements in neighbouring Swaziland (Parker 1994a). The species has expanded its range elsewhere in southern Africa by exploiting man-made habitats (ASAB1: 390–391), but its status in this region is probably unchanged.



#### **256 Lesser Blackwinged Plover**

#### Vanellus lugubris

Tarambola-de-asa-negra-pequena

A common resident of grasslands and savannas. The population in the northeast is separated from that in the south by an area of woodland in which grassy clearings are rare. It occurs in flocks of up to 20 birds. The higher reporting rates during winter support speculation that birds from South Africa move into Mozambique in the dry season (ASAB1: 392). There was no sign of seasonal movements by the small population in Swaziland (Parker 1994a). The resident population probably exceeds 2000 birds. Breeding in the neighbouring regions occurs in the early summer (ASAB1: 392).



#### **258 Blacksmith Plover**

*Vanellus armatus* Tarambola-preta-e-branca

A common resident of inland wetlands with shallow water. It usually occurs in pairs but occasionally gathers in flocks of up to 20 birds. Breeding in the neighbouring regions occurs throughout the year with a peak in early summer (ASAB1: 396–397). There is no clear evidence for seasonal movements. The population probably exceeds 1000 birds. It has expanded its range in South Africa by exploiting man-made wetlands (ASAB1: 396–397), but in this region it is largely restricted to natural wetlands and its status is unlikely to have changed.



#### **259 Whitecrowned Plover**

#### *Vanellus albiceps* Tarambola-de-coroa-branca

A rare breeding resident, only encountered along the Olifants and Save Rivers; it is most often seen in pairs on sand banks. It was not encountered along the Limpopo River, which was dry for extended periods. Breeding in the neighbouring regions occurs from July to November with a September peak (ASAB1: 398–399). There were too few observations for any seasonal movements to be apparent. The population probably does not exceed 100 birds. It has probably declined as a result of human disturbance along rivers and is threatened in this region.



## **260 Wattled Plover** *Vanellus senegallus* Tarambola-carunculada

An uncommon resident in marshy areas where it occurs in pairs. The population possibly exceeds 1000 birds. The winter peak in reporting rates suggests that there may be an influx of birds from high altitudes in South Africa. Breeding in southern Africa occurs from September to January (ASAB1: 400–401).


#### **261 Longtoed Plover**

#### Vanellus crassirostris

Tarambola-de-asa-branca

Two birds were seen in a marsh near San Sebastio (2235AB) in October 1996. Prior to this survey it was recorded from Incoluane (2532BB) (Clancey 1996) but was not seen there during this survey. It is probably only an occasional visitor to this region but it may have been overlooked in marshlands which are inaccessible.





A common nonbreeding Palearctic summer migrant, with some birds overwintering. Birds migrating to this region probably breed in central Siberia, and migrate via the Middle East (ASAB1: 404–405). It occurs in bays and estuaries and forages in the intertidal zone, in flocks of up to 100 birds. In January 1997, over 400 birds were counted on the Bazaruto Archipelago (2135CB,D) (U. & P. Kohler) and 490 on Inhaca Island (2632BB) (F. de Boer). The population reaching this region is estimated to be 5000 birds, about 15% of the number in the rest of southern Africa (Summers *et al.* 1987).



# 263 Terek Sandpiper

# *Xenus cinereus* Maçarico-sovela

An uncommon nonbreeding Palearctic summer migrant. It is found in bays and estuaries and forages in the intertidal mudflats, usually in flocks of up to 20 birds. It was observed from October to April with a single record of overwintering birds in July. In January 1997, over 450 birds were counted on the Bazaruto Archipelago (2135CB,D) (U. & P. Kohler) and over 500 on Inhaca Island (2632BB) (F. de Boer). In November 1976, 3200 birds were counted at Inhaca Island (Waltner & Sinclair 1981). That count is regarded as exceptional, because peak numbers were observed at localities in South Africa at the same time, and lower numbers were observed at Inhaca in other years (Waltner & Sinclair 1981). The number visiting this region in non-peak years probably exceeds 2000, which is twice the estimate for the rest of the southern African coast (ASAB1: 403) and represents about 4% of the population which migrates to Africa and the Arabian Peninsula (Rose & Scott 1994).



#### 264 Common Sandpiper

Actitis hypoleucos Maçarico-das-rochas

A common nonbreeding Palearctic summer migrant. It occurs at all types of inland waterbodies and rarely at the coast. It was usually encountered singly. There were no confirmed cases of overwintering, the winter records possibly referring to late departures and early arrivals, with no records in June. The population visiting this region is estimated to be 5000 birds.



# 265 Green Sandpiper

Tringa ochropus

Maçarico-escuro

A rare nonbreeding Palearctic summer migrant to freshwater localities. It was observed once on Bazaruto Island (2135CD) in January 1989.



#### 266 Wood Sandpiper

*Tringa glareola* Maçarico-bastardo

A common nonbreeding Palearctic summer migrant. It occurs at freshwater wetlands with mudflats and rarely at the seashore. It was present from August to April with no records of overwintering. It was observed singly and in flocks of up 20 birds. 430 birds were counted on a lake near Zitundo (2632DB) in January 1998 (C. Bento). The number visiting the region is estimated to be 5000 birds.



# 269 Marsh Sandpiper

*Tringa stagnatilis* Perna-verde-fino

A nonbreeding Palearctic summer migrant which is uncommon at inland marshes and waterbodies with mudflats and rare at intertidal mudflats on the coast. It was observed singly and in flocks of up to 20 birds. It was observed from July to April. The number visiting the region is estimated to be 1000 birds.





A common nonbreeding Palearctic summer migrant to all types of wetlands with shallow water, especially intertidal mudflats. Overwintering occurs regularly. It occurs singly or in flocks of up to 100 birds. In January 1998, 1771 birds were counted on the Bazaruto Archipelago (2135C) (U. & P. Kohler) and 550 on Inhaca Island (2632BB) (F. de Boer). The number visiting the region probably exceeds 10 000 birds.



# **272 Curlew Sandpiper** *Calidris ferruginea* Pilrito-de-bico-comprido

A common nonbreeding Palearctic summer migrant to freshwater and coastal wetlands. It occurs in flocks which sometimes number hundreds. It is most numerous on intertidal mudflats in bays and estuaries. A high degree of site fidelity was found among birds wintering on the South African coast (ASAB1: 418-419). On the other hand, birds at inland wetlands are of necessity nomadic, because the extent of suitable shallows fluctuates greatly from month to month and from year to year. Overwintering occurs regularly. In January 1997, 4410 birds were counted on the Bazaruto Archipelago (2135C) (P. & U. Kohler) and over 2000 on Inhaca Island (2632BB) (F. de Boer). Over 800 birds were counted in Maputo (2532DC) in January 1998 (C. Bento). The number of birds visiting this region may exceed 20 000, which is 10 to 20% of the number visiting the rest of southern Africa (Summers et al. 1987) and about 2% of the global population (Rose & Scott 1994).



# **274 Little Stint** *Calidris minuta* Pilrito-pequeno

A common nonbreeding Palearctic summer migrant to freshwater and coastal wetlands with mudflats. It occurs in flocks of up to 100 birds. Overwintering was not observed. 360 birds were counted on the Bazaruto Archipelago (2135C) during January 1997 (U. & P. Kohler). The number visiting the region is estimated at 5000, which is about 0.3% of the global population (Rose & Scott 1994).



# **281 Sanderling** *Calidris alba* Pilrito-sanderlingo

A common nonbreeding Palearctic summer migrant to sandy beaches. It occurs in flocks which number up to 100 birds. 2273 birds were counted on the Bazaruto Archipelago (2135C) during January 1998 (U. & P. Kohler). Over 600 birds were counted on Inhaca Island (2632BB) in January 1997 (F. de Boer) and 300 birds at Ponta da Barra (2335CD) in February 1997. The number visiting the region probably exceeds 5000, which is about 2% of the Palearctic population (Rose & Scott 1994) and about 6% of the number reaching southern Africa (Summers et al. 1987). Southward migration to southern Africa takes place along both the west and east coasts, while northward migration is believed to take place mostly or entirely along the west coast (ASAB1: 422-423). This hypothesis is generally supported by observations in this region, with higher reporting rates in spring rather than in autumn.



# **284 Ruff** *Philomachus pugnax* Combatente

An uncommon nonbreeding Palearctic summer migrant to freshwater wetlands. It was observed in flocks of up to 20 birds. Possibly no more than 500 birds visit this region annually.



#### 286 Ethiopian Snipe

*Gallinago nigripennis* Narceja-africana

An uncommon resident of marshland. It was observed singly and in pairs. It may number fewer than 500 birds in the region. It breeds throughout the year in southern Africa, with a winter peak (ASAB1: 426–427).



# 288 Bartailed Godwit

*Limosa lapponica* Fuselo

An uncommon nonbreeding Palearctic summer migrant, with a few birds overwintering. It was most often encountered singly or in flocks of up to 10 birds, but occasionally in larger flocks. It occurs in bays and estuaries with intertidal mudflats. 5523 birds were counted on the Bazaruto Archipelago (2135C) in January 1998 (U. & P. Kohler), which is the largest concentration yet reported in southern Africa (ASAB1: 429). A flock of 120 birds was reported on Inhaca Island (2632BB) in January 1996 (De Boer & Bento 1998). The number visiting the region probably exceeds 7000 godwits, which is more than double the population reaching the rest of southern Africa (ASAB1: 429). It has colonised southern Africa during the 20th century (ASAB1: 429) and was not reported from this region prior to this survey (see Clancey 1996).



## 289 Curlew

*Numenius arquata* Maçarico-real

A rare nonbreeding Palearctic summer migrant to bays and estuaries with intertidal mudflats. Birds reaching this region probably originate in western and central Siberia (ASAB1: 430). It was observed in groups of up to 20 birds. About 250 birds visit this region, about half the number visiting the rest of southern Africa (ASAB1: 430). It has declined as a result of habitat modification on its Siberian breeding grounds (ASAB1: 430).



# **290 Whimbrel** *Numenius phaeopus* Maçarico-galego

A common nonbreeding Palearctic summer migrant to bays and estuaries, where it forages in the intertidal mudflats. It usually occurs in small flocks but occasionally flocks may number hundreds of birds. More than 2000 birds were counted on the Bazaruto Archipelago (2135C) in January 1996 (U. & P. Kohler) and 2100 on Inhaca Island (2632BB) in January 1997 (F. de Boer). The population probably exceeds 10 000 birds, and is more than double the population of the rest of southern Africa (ASAB1: 432–433). An estimated 20–30% of birds overwinter.



# 294 Avocet

#### Recurvirostra avosetta

#### Alfaiate

An uncommon resident or visitor on freshwater wetlands with extensive shallows which occurs in flocks of up to 20 birds. Numbers in the region are unlikely to exceed 200, or 1% of the southern African population (ASAB1: 434–435). Breeding has not been observed but may occur within the region. It has increased elsewhere in southern Africa as a result of the creation of artificial wetlands (ASAB1: 434–435), but its status in this region is unlikely to have changed.



#### 295 Blackwinged Stilt

#### Himantopus himantopus Perna-longa

A common resident on freshwater wetlands which occurs in pairs or flocks of up to 20 birds. Over 1000 birds were counted at Lake Chuali (2532BB) during September 1971 (Milstein 1984). Subsequently, higher water-levels resulting from the construction of a weir have made the site less favourable and much smaller numbers were observed there during this survey. The population may exceed 5000, which represents 25–50% of the estimated (possibly underestimated) southern African population (ASAB1: 436–437). It has increased elsewhere in southern Africa as a result of the creation of artificial wetlands (ASAB1: 436–437), but its numbers in this region are unlikely to have increased. Breeding may occur throughout the year (ASAB1: 436–437) and was observed in January.



# 296 Crab Plover

# Dromas ardeola Tarambola-caranguejeira

An uncommon nonbreeding summer migrant to the coast. It breeds on islands in the northwestern Indian Ocean and migrates along the east coast of Africa (Hockey & Aspinall 1996). It occurs regularly in the Bazaruto Archipelago (2135CB) and occasionally as far south as Inhaca Island (2632BB). A flock of 77 birds was seen at San Sebastio (2235AB) in March 1995 (Hockey & Aspinall 1996) and a flock of 40 was seen at Inhaca Island in January 1998 (De Boer & Bento 1998). It usually occurs in flocks of 10 or fewer. There may be up to 200 birds in the region at times.



# **297 Spotted Dikkop** *Burhinus capensis* Alcaravão do Cabo

An uncommon resident of savannas and open woodlands, where it occurs in pairs. It is absent from the most densely populated section of the coast, probably as a result of habitat modification and direct persecution. The population is estimated at 2000 birds. There is no evidence for seasonal movements. Breeding occurs in summer (ASAB1: 438–439).



#### 298 Water Dikkop

# Burhinus vermiculatus

Alcaravão-de-água

An uncommon resident of the margins of inland wetlands, where it occurs in pairs. The population is unlikely to exceed 500 birds. Its description as 'the common dikkop of southern Mozambique' (Clancey 1996; ASAB1: 440–441) may be more applicable north of the Save River. It has increased elsewhere in southern Africa as a result of the creation of artificial wetlands (ASAB1: 440–441), but its status in this region is unlikely to have changed. Breeding occurs in early summer throughout southern Africa (ASAB1: 440–441).



#### **300 Temminck's Courser**

*Cursorius temminckii* Corredor de Temminck

An uncommon breeding resident of grassland and savanna, where it is encountered singly or in pairs. The population probably exceeds 500 birds. There is no evidence for seasonal movements in this region, although it is a summer migrant in the drier west of southern Africa (ASAB1: 446–447). Breeding is most likely to occur in early summer (ASAB1: 446–447). It has declined elsewhere in southern Africa (ASAB1: 446–447) but its status in this region is unlikely to have changed.



# **303 Bronzewinged Courser** *Rhinoptilus chalcopterus* Corredor-asa-de-bronze

An uncommon breeding resident of savannas and woodland with grassy clearings, where it occurs in pairs. It was encountered among Acacia and broadleaved woodlands, but not Mopane woodlands which are generally less grassy than the other woodlands. Elsewhere in southern Africa its occurrence was found to be associated most strongly with the Mopane biome (ASAB1: 450-451). This may be misleading, in that the species may be associated with habitats which overlap with Mopane woodlands and not the Mopane itself. The resident population in southern Africa is believed to be augmented in summer by nonbreeding migrants from farther north (ASAB1: 450-451). There were too few observations during this survey to clarify possible seasonal movements. Breeding occurs in early summer (ASAB1: 450-451). It is inconspicuous and was probably overlooked at some localities. The population probably exceeds 400 birds.



#### **304 Redwinged Pratincole**

*Glareola pratincola* Perdiz-do-mar

A common breeding resident of marshland and short grasslands near water. It may be seen in pairs or in flocks of up to 100 birds. In the neighbouring regions of Swaziland and KwaZulu-Natal it is present only in summer (ASAB1: 454– 455). Here there appears to be a partial winter exodus. The population probably exceeds 5000 birds. Breeding occurs in early summer (ASAB1: 454–455) and was observed in October, November and January.



## 309 Pomarine Skua

Stercorarius pomarinus

Moleiro-pomarino

Single birds were reported at sea off Inhaca Island (2632BB) in January 1998 (De Boer & Bento 1998). Prior to this survey a bird was seen off Maputo on 29 January 1976 during Cyclone Danae (Brooke *et al.* 1981).



# **312 Kelp Gull** *Larus dominicanus* Gaivota-dominicana

An uncommon nonbreeding winter visitor to the coastline, seen singly or in groups of up to 10 birds. The number visiting this region is unlikely to exceed 300. The birds breed in summer along the coast of South Africa, as far east as the Riet River (3327CA) in the eastern Cape, and disperse northwards along the east and west coasts after breeding (Crawford *et al.* 1997).



#### 313 Lesser Blackbacked Gull

Larus fuscus

Gaivota-de-asa-escura

A rare nonbreeding Palearctic summer migrant. A single bird was seen in Maputo Bay (2632BB) in February 1995. Other probable sightings are not reported because identification was not certain. Prior to this survey, single birds were reported from Inhaca Island (2632BB) in October and November 1976 (Brooke *et al.* 1981).



#### 315 Greyheaded Gull

Larus cirrocephalus Gaivota-de-cabeça-cinzenta

A common resident along the coast and on some inland lakes with extensive shallows. It is sometimes seen singly but more usually in flocks which may number more than 100 birds. 350 birds were counted at Inhaca Island (2632BB) in October 1976 (Brooke *et al.* 1981). Six birds ringed in Benoni, South Africa (2628AB), and two ringed at Lake St Lucia, South Africa (2832AB), between 1957 and 1988 were recovered in the Bay of Maputo (2532DC) and the Inkomati River flood-plain between 1959 and 1989 (SAFRING). The population may exceed 5000 birds. Elsewhere in southern Africa it has increased greatly at inland localities, at least partly due to its feeding on garbage (ASAB1: 464–465), but its status in this region has probably not changed significantly. Breeding occurs in winter and spring (ASAB1: 464–465).



# 321 Gullbilled Tern

*Gelochelidon nilotica* Gaivina-de-bico-preto

A single bird was seen at the saltworks in Maputo (2532DC) in March 1995, two at Lake Chuali (2532BB) in June 1996 and one on a lake at Manjacaze (2433DB) in August 1996, with records verified by the Rarities Committee of BirdLife South Africa (Hockey *et al.* 1996). It has not previously been recorded from the region (Clancey 1996).



# **322 Caspian Tern** *Hydroprogne caspia* Gaivina-de-bico-vermelho

An uncommon species which is present throughout the year along the coast and sometimes on inland lakes. It may be a breeding resident, although breeding has not been observed in the region but has been reported farther north at the Zambezi River Mouth (Clancey 1996). It is usually seen in ones and twos. During September 1971, 332 birds were counted at Lake Bambene (2433CB) and 267 at Lake Nhangul (2433BC) (Milstein 1984). In October 1976, 250 birds were counted at Inhaca Island (2632BB) (Brooke et al. 1981). These concentrations probably reflect influxes in response to temporarily favourable conditions, because such large concentrations were not encountered during this survey. Two birds ringed at Lake St Lucia, South Africa (2732DC), were recovered at Maputo (2532DC) and Manjacaze (2433DB) in May and June 1995 and a bird ringed at Port Elizabeth, South Africa (3325DC), was recovered at Machangulo (2632BB) in December 1996 (SAFRING). The population in the region probably does not exceed 500, which is almost half the breeding population elsewhere in southern Africa (ASAB1: 468-469).



# 324 Swift Tern

*Sterna bergii* Gaivina-de-bico-amarelo

An uncommon visitor to the coast, usually seen singly. 300 birds were counted at Inhaca Island (2632BB) in October 1976 (Brooke *et al.* 1981). At the time, breeding displays and copulation were observed, but breeding has never been confirmed within this region. 216 birds were counted on the Bazaruto Archipelago in January 1998 (U. & P. Kohler) and the population possibly exceeds 1000 birds. The nearest known breeding colony is at Algoa Bay, South Africa (3326CD), and breeding in South Africa takes place from January to July (ASAB1: 470–471). The summer peak in occurrence here is consistent with dispersal from the breeding grounds in South Africa.



#### 325 Lesser Crested Tern

Sterna bengalensis Gaivina-de-bico-laranja

Although present through most of the year, breeding has not been observed here and is known only from north Africa, the northern Indian Ocean and tropical Australasia (Harrison 1983). It is encountered in flocks of up to 100 birds along the coast, especially in bays and estuaries. More than 5000 birds were counted on the Bazaruto Archipelago in January 1997 (U. & P. Kohler), 100 birds at Ponta da Barra (2335CD) in February 1997 and 170 on Inhaca Island (2632BB) in 1996 (De Boer & Bento 1998). The population probably exceeds 10 000 birds, and is considerably greater than that observed along the coast of neighbouring KwaZulu-Natal, South Africa (ASAB1: 474).



# 326 Sandwich Tern

Sterna sandvicensis

#### Garajau

An uncommon nonbreeding Palearctic summer migrant along the coast, seen singly or in flocks of up to 10 birds. Up to 450 birds were seen at Inhaca Island (2632BB) in October 1976 (Brooke *et al.* 1981). The number visiting this region may exceed 1000 birds. A bird ringed in England in July 1962 was recovered near Inhambane (2335CD) in January 1971 (SAFRING).



# **327 Common Tern** *Sterna hirundo* Gaivina-comum

A very common nonbreeding Palearctic summer migrant along the coast. It is seen in flocks which sometimes number thousands of birds. Up to 2000 birds were seen at Inhaca Island (2632BB) in November 1976 (Brooke *et al.* 1981) and more than 20 000 were reported off the coast of Bazaruto Island in January 1996 (Kohler & Kohler 1997). The number visiting this region probably exceeds 100 000. Overwintering occurs regularly. A bird ringed near Helsinki, Finland, in June 1964 was recovered at Bilene (2533AC) in May 1965 (SAFRING).



# **330 Roseate Tern** *Sterna dougallii* Gaivina-rósea

An uncommon nonbreeding visitor observed at Bazaruto (2135CB) in January 1997 and January 1998 (U. & P. Kohler). A count of 80 birds at Bazaruto in January 1998 suggests that the birds originate from Indian Ocean islands (possibly Madagascar) rather than South Africa, because the only known breeding sites in South Africa at Algoa Bay support no more than 140 pairs (ASAB1: 479). Prior to this survey, a bird was seen at Inhaca Island (2632BB) in November 1976 (Brooke *et al.* 1981). It may have been overlooked at some coastal localities owing to its close resemblance to the Common Tern. It is classed as 'endangered' in South Africa (Brooke 1984) and is believed to be declining globally (Rose & Scott 1994).



**332 Sooty Tern** *Sterna fuscata* Gaivina-de-dorso-preto

A rare visitor to the coast. Single birds have been seen at Bazaruto Island (2135CB), Tofu (2335DC) and Morrungulo (2335AB). A recent report indicates that breeding occurs on islands off the coast of northern Mozambique (Kromer 1998). Prior to this survey, eight dead birds were found at Bilene (2533AD) during Cyclone Danae in January 1976, four birds were seen at Inhaca Island (2632BB) in October and one in November 1976 (Brooke *et al.* 1981).



# 335 Little Tern

# *Sterna albifrons* Gaivina-pequena

A common nonbreeding Palearctic summer migrant to the coast, with a few birds overwintering. It is usually seen in flocks which may number more than 100 birds. Up to 150 birds were present at Inhaca Island (2632BB) in October 1976 (Brooke *et al.* 1981) and more than 1500 were counted on the Bazaruto Archipelago in January 1997 (U. & P. Kohler). The number visiting the region may exceed 10 000 birds.



# **338 Whiskered Tern** *Chlidonias hybridus* Gaivina-de-faces-brancas

A common resident of inland marshes and lakes. It is encountered in pairs or in flocks which may number more than 100 birds. 670 birds were counted on a lake near Zitundo (2632DB) in January 1998 (C. Bento). The population probably exceeds 2000 birds. Breeding occurs throughout the summer with a peak in late summer (ASAB1: 486–487) and was observed near Ponta Douro (2632DD) in January.



# 339 Whitewinged Tern

Chlidonias leucopterus

Gaivina-de-asa-branca

A common nonbreeding Palearctic migrant to freshwater wetlands. It usually occurs in flocks which may number hundreds of birds. The number visiting this region probably exceeds 5000 birds. Overwintering was not observed.



# 340 Common Noddy

Anous stolidus Gaivina-sombria-grande

A bird was seen at Bazaruto Island (2135CB) in January 1998 by U. & P. Kohler. This is the first record of the species for Mozambique.



# 343 African Skimmer

#### Rynchops flavirostris Bico-de-tesoura-africano

A flock of five was seen on the Save River at Zinave (2133BD) in June 1996, where it has previously been collected (Clancey 1996). It may breed here in some years, when conditions are suitable. It is a breeding summer intra-African migrant and is nomadic within southern Africa, moving in response to fluctuating river levels (ASAB1: 490–491). It has declined in southern Africa (ASAB1: 490–491) and is extinct as a breeding species in South Africa (Brooke 1984).



#### 347 Doublebanded Sandgrouse

*Pterocles bicinctus* Cortiçol-de-duas-golas

A common resident of arid savanna and woodlands. It avoids Mopane woodland, preferring more grassy habitats. Its reported preference for Mopane elsewhere in southern Africa (ASAB1: 498–499) may arise from it occurring in habitats which overlap with Mopane. It is encountered in pairs. The population probably exceeds 2000 birds. Breeding may occur throughout the year, with a peak in July and August (ASAB1: 498–499).



# **348 Feral Pigeon** *Columba livia* Pombo-doméstico

An uncommon resident in the larger towns. Not all records of the species have been mapped owing to uncertainty over which birds were truly feral. In rural areas, free-flying birds in a semi-domesticated state occur around homesteads. It is usually seen singly or in flocks of up to 20 birds. It has not previously been reported from the region (Clancey 1996), presumably because it was not recognised as feral.



# 350 Rameron Pigeon

*Columba arquatrix* Pombo-de-bico-amarelo

One sighting of a single bird was reported, from Inhaca Island (2632BB) in June 1995. It has previously been reported from Namaacha (2532CC) (Clancey 1996) and has been reported as a vagrant in the neighbouring part of Swaziland (Parker 1994a).



# 352 Redeyed Dove

Streptopelia semitorquata

Rola-de-olhos-vermelhos

A common resident of woodlands, usually encountered singly or in pairs. It prefers the taller woodlands near water. The population probably exceeds 50 000 birds. Breeding occurs throughout the year with an early summer peak (ASAB1: 506–507).



# 353 African Mourning Dove

Streptopelia decipiens Rola-gemedora

A common resident of riverine woodlands, mainly near the Inkomati, Limpopo and Save Rivers. It is usually encountered singly or in pairs. The population probably exceeds 5000 birds. Breeding occurs throughout the year (ASAB1: 508–509).



# **354** Cape Turtle Dove

*Streptopelia capicola* Rola do Cabo

A very common resident of woodland and savanna. It avoids forests. It is usually encountered singly or in pairs but sometimes congregates in numbers (up to 100 birds) at water holes. The population probably exceeds four million birds. Breeding occurs throughout the year with an early summer peak (ASAB1: 510–511).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	29	80	9	39



# 355 Laughing Dove

Streptopelia senegalensis Rola do Senegal

A common resident of arid woodland and savanna and especially cultivated lands in the more arid parts. It was observed singly, in pairs, and in flocks of up to 100 birds. The population probably exceeds 50 000 birds. Breeding occurs throughout the year with an early summer peak (ASAB1: 512–513).



#### 356 Namaqua Dove

#### *Oena capensis* Rola-rabilonga

A common resident of savannas and cultivated lands, where it is encountered singly or in pairs. The population probably exceeds 10 000 birds. Breeding occurs throughout the year with an early summer peak (ASAB1: 514–515). It is nomadic and may appear sporadically outside its normal range. Although there is no evidence for seasonal movements in this region, part of the southern African population is believed to migrate northwards in winter (ASAB1: 514–515).



#### **358** Greenspotted Dove

*Turtur chalcospilos* Rola-esmeraldina

A very common resident of woodlands, usually encountered singly. It avoids forests. The population probably exceeds four million birds. Breeding occurs throughout the year with a summer peak (ASAB1: 518–519). There is no evidence for seasonal movements.

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	29	22	18	26



## **359** Tambourine Dove

*Turtur tympanistra* Rola-de-papo-branco

An uncommon resident of riparian woodland and coastal woodland and forest. It occurs singly or in pairs. The population probably exceeds 4000 birds. Breeding in southern Africa occurs in summer with a peak in October–November (ASAB1: 520–521).



#### 361 Green Pigeon

*Treron calva* Pombo-verde

A common resident of tall woodlands where fruiting trees, especially *Ficus* spp., are available, occurring singly or in flocks of up to 20 birds. The population probably exceeds 5000 birds. It is regarded as a pest by fruit farmers and is frequently captured and eaten or sold as a cage-bird (M. Rees pers. comm.). Breeding in southern Africa occurs in summer and rarely in winter (ASAB1: 524–525) and was observed in November.



# **362 Cape Parrot** *Poicephalus robustus* Papagaio-de-bico-grosso

An uncommon resident of tall mixed woodlands, especially where Baobab trees *Adonsonia digitata* are present, occurring singly or in groups of up to five birds. It was not encountered in Mopane woodland and the reported association with Mopane elsewhere in southern Africa (ASAB1: 526–527) may have arisen from its occurrence in other woodland types overlapping with the Mopane vegetation type. The population probably exceeds 1000 birds. Breeding occurs from March to November (ASAB1: 526–527). Birds are sometimes taken by trappers for the cage-bird trade.



# **363 Brownheaded Parrot**

Poicephalus cryptoxanthus Papagaio-de-cabeça-castanha

A very common resident of woodlands, usually in groups of up to 10 birds. It is frequently observed among alien fruit trees, especially cashews, and maize fields; it is considered a pest by farmers. It sometimes nests in alien coconut trees (T. Cavalho pers. comm.). It is much sought after as a cagebird and an estimated 150 pairs per year are exported to South Africa (both legally and illegally) (M. Rees pers. comm.). Greater numbers are captured and sold locally (and possibly exported abroad illegally). Despite the numbers captured, it has probably increased as a result of its exploitation of alien vegetation along the coast. Breeding occurs in winter (ASAB1: 528–529) and was observed in April. The population probably exceeds 20 000 birds.



# **366 Roseringed Parakeet**

Psittacula krameri

Periquito-de-colar

A single bird, possibly an escaped cage-bird from Maputo, was seen on Inhaca Island in November 1996 (De Boer & Bento 1999).



# **370** Knysna Lourie (Livingstone's Lourie)

*Tauraco livingstonii* Turaco de Livingstone

An uncommon resident of coastal forests. Its range has probably been fragmented as a result of the destruction of forests for agriculture. It is encountered in groups of up to five birds. It may number fewer than 1000 birds. Breeding occurs in summer (ASAB1: 538–539). The species has declined in South Africa (ASAB1: 538–539) and further deforestation in this region could lead to it being locally threatened.



#### **371** Purplecrested Lourie

Tauraco porphyreolophus

Turaco-de-crista-violeta

A very common resident of moist woodlands; it occurs in pairs or family groups. It is replaced by the Grey Lourie in arid woodlands. The population probably exceeds 10 000 birds. Breeding in southern Africa occurs in summer with an egglaying peak in November (Rowan 1983). It is sometimes captured and eaten by farmers.



# **373 Grey Lourie** *Corythaixoides concolor*

#### Turaco-cinzento

A common resident of arid woodlands and savanna, occurring singly or in groups of up to thirty birds. It is replaced by the Purplecrested Lourie in moist woodlands. The population probably exceeds 50 000 birds. Breeding in southern Africa occurs throughout the year with an egglaying peak in September and October (ASAB1: 542–543).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	20	<5	<5	12



# **375 African Cuckoo** *Cuculus gularis* Cuco-canoro-africano

An uncommon breeding intra-African summer migrant to woodlands. It occurs singly or in pairs. It has not previously been recorded in the region, but has doubtless been confused with the European Cuckoo, with which it was formerly regarded as conspecific (McLachlan & Liversidge 1978). It is a brood parasite of the Forktailed Drongo (Rowan 1983) and its range falls within the range of that species in this region. It was probably overlooked at some localities because it is secretive and inconspicuous when not calling. Because almost all records were of calling birds, the timing of breeding probably coincides closely with the period during which the species was recorded. The population probably exceeds 2000 birds.



#### 377 Redchested Cuckoo

*Cuculus solitarius* Cuco-de-peito-vermelho

A common breeding intra-African summer migrant to woodlands. It occurs singly or in pairs. It was probably overlooked at some localities because it is secretive and inconspicuous when not calling. Because it was recorded almost exclusively while calling, the timing of breeding probably coincides closely with the period during which it was recorded. In this region, calling continues until the end of March, while in neighbouring Swaziland, calling usually ceases by mid-January (Parker 1994a). It is a brood parasite of a number of species, but mostly of the robin family (Rowan 1983). Comparison of its range in this region with those of likely hosts suggests that the Whitethroated and Bearded Robins may be the most frequent hosts. Heuglin's Robins are probably also parasitized, among other species. The population probably exceeds 20 000 birds.



# 378 Black Cuckoo

#### *Cuculus clamosus* Cuco-preto

A common breeding intra-African summer migrant to woodlands. It occurs singly or in pairs. That Clancey (1996) regarded it as 'either absent or sparse' indicates either that earlier observers were not aware of the call of the species, or that little field exploration was undertaken during the rainy season, or both. It is a brood parasite and the main (possibly only) host species in this region is the Southern Boubou (Rowan 1983). Its range in this region lies within the range of that species. The population probably exceeds 20 000 birds. Because it was recorded almost exclusively while calling, the timing of breeding probably coincides closely with the period during which it was recorded.



# **379 Barred Cuckoo** *Cercococcyx montanus*

#### Cuco-das-montanhas

A single bird was observed in *Julbernadia* woodlands in December 1995. It is secretive and is likely to have been overlooked at some localities. It may be a breeding summer migrant. It has not previously been reported south of the Save River (Clancey 1996).



# **380 Great Spotted Cuckoo** *Clamator glandarius* Cuco-rabilongo

A rare summer visitor to woodlands, observed singly. Clancey (1996) believed that because it is not uncommon in the Kruger National Park, South Africa, it must have similar status in the neighbouring part of Mozambique. However, one of its major host species in the neighbouring territory, Burchell's Starling, does not occur within Mozambique, and the assumption that the Mozambican territory is 'ecologically similar' to that across the border is mistaken. Prior to this survey it was reported from the Maputo Elephant Reserve (2632DB) (Tello 1973), from Manhica (2532BD) (Clancey 1996) and from Maputo (2532DC) in October 1979 (Herdam 1994). The sparse and scattered pattern of occurrence suggests that the birds may be nonbreeding Palearctic migrants of the nominate subspecies. If it does breed within the region, the most likely host species is the Greater Blue-eared Starling (Rowan 1983). A single bird was seen at the same locality (Morrungulo 2335AB) in two successive winters and was not recorded in that neighbourhood in summer. The population is unlikely to exceed 200 birds.



# **381 Striped Cuckoo** *Clamator levaillantii* Cuco de Levaillant

An uncommon breeding intra-African summer migrant to woodlands. It is a brood parasite of the Arrowmarked Babbler (Rowan 1983) and its range falls within that of the babbler. It was observed singly or in pairs. It may have been underrecorded, owing to the difficulty of distinguishing it in the field from the Jacobin Cuckoo, which is similar both in appearance and vocalizations. A density of 1 calling male/ 150 ha of woodland has been estimated in the Northern Province, South Africa (Tarboton *et al.* 1987). The population probably exceeds 1000 birds. Egglaying has been recorded from October to May in southern Africa with peaks in spring and autumn (ASAB1: 554–555).



# 382 Jacobin Cuckoo

#### *Clamator jacobinus* Cuco-jacobino

An uncommon breeding summer migrant to woodlands. It may have been overlooked in some localities owing to its close similarity to the Striped Cuckoo. It occurs singly or in pairs. The population probably exceeds 2000 birds. It is a brood parasite whose main hosts in the region are the Blackeyed and Sombre Bulbuls (Rowan 1983). Egglaying in southern Africa has been recorded from October to April with a peak November to January (ASAB1: 556–557).



#### 383 Thickbilled Cuckoo

Pachycoccyx auderberti Cuco-de-bico-grosso

An uncommon breeding intra-African summer migrant or resident in moist woodlands. It was probably overlooked in many localities owing to its skulking habits and was possibly present and not recorded in winter while not calling. Clancey (1996) described it as resident, but with insufficient evidence. Its range is likely to mirror that of its host species, the Redbilled Helmetshrike (Rowan 1983). It is encountered singly or in pairs. Egglaying in southern Africa has been reported from September to May with a peak from October to November (ASAB1: 559). The population probably exceeds 200 birds.



### 384 Emerald Cuckoo

*Chrysococcyx cupreus* Cuco-esmeraldino

A rare inhabitant of forests, encountered singly in the Libombo Mountain range. Prior to this survey it was reported from Chimonzo (2433CD), Macia (2533AA) and Massinga (2335AD). It is not clear whether it is migratory or whether resident birds are overlooked when not calling (ASAB1: 560– 561). The population consists of fewer than 100 birds and has probably declined as a result of deforestation for charcoal production. The most likely host species in this region are the Bleating Warbler and Bluegrey Flycatcher (Maclean 1993). Breeding occurs from October to February (ASAB1: 560– 561). It is threatened in this region.



# 385 Klaas's Cuckoo

*Chrysococcyx klaas* Cuco-bronzeado-menor

An uncommon inhabitant of woodlands, with highest densities in *Julbernadia* and *Brachystegia* woodlands. It is thought to be a summer migrant in much of southern Africa (ASAB1: 562–563) but is described as a resident in neighbouring Swaziland (Parker 1994a). There were sufficient winter records to suggest that it is not migratory in this region. Lower reporting rates in winter may be due to reduced conspicuousness when not calling. It occurs singly or in pairs. The population probably exceeds 20 000 birds. Egglaying in southern Africa spans September to April with an October to December peak (ASAB1: 562–563). It is a brood parasite of a range of small insectivorous host species including the Longbilled Crombec, Chinspot Batis, Collared Sunbird and Black Sunbird (Rowan 1983).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	<5	<5	9	<5



#### 386 Diederik Cuckoo

#### *Chrysococcyx caprius* Cuco-bronzeado-maior

A common breeding intra-African summer migrant to woodlands and savanna, especially near wetlands. It occurs singly or in pairs. It is a brood parasite and the main hosts in the region are the Masked Weaver, Spottedbacked Weaver, Yellow Weaver and Red Bishop (Rowan 1983). The population may exceed 10 000 birds. In the neighbouring regions egglaying spans October to April with a peak in December (ASAB1: 564–565). It has increased elsewhere in southern Africa as a result of the spread of alien vegetation and agriculture but its status in this region is probably unchanged (ASAB1: 564–565).



# **387 Green Coucal** *Ceuthmochares aereus* Cucal-verde

A rare resident in dense coastal scrub, woodlands and forest. It was observed on Inhaca Island (2632BB), the Bazaruto Archipelago (2135CB) and along the coast south of Maputo. It was probably overlooked at other coastal localities owing to its skulking habits. It had previously also been reported from Chimonzo (2433CD), Bilhene (2533AD), Inhambane (2335CD), Massinga (2335AD) and Mapinhane (2235AC) (Clancey 1996); it has declined as a result of the destruction of natural vegetation along the coast. It occurs singly or in pairs. Breeding in southern Africa occurs from October–December (ASAB1: 566). The population is probably fewer than 500 birds and it is threatened in this region.



# **388 Black Coucal** *Centropus bengalensis* Cucal de Bengala

An uncommon breeding summer migrant to marshes with reedbeds and moist grasslands and the surrounding savannas and woodlands. It may have been overlooked at some localities owing to its skulking habits. It occurs singly or in pairs. It has not previously been reported from the region, although Clancey (1996) reported it from the South African border and describes it as 'evidently occurring' within the region. The population probably exceeds 1000 birds. Breeding in southern Africa has been recorded from December to March (ASAB1: 567).



# **391 Burchell's Coucal** *Centropus burchellii* Cucal de Burchell

A common resident of marshes, reedbeds, moist grassland and woodlands with dense undergrowth where surface water is available. It occurs singly or in pairs. Reduced reporting rates in winter are due to decreased conspicuousness when not calling. The population probably exceeds 10 000 birds. Breeding was observed in November and March and may occur throughout the year with a summer peak (ASAB1: 572–573). It has expanded its range elsewhere in southern Africa by utilising man-made habitats (ASAB1: 572–573) but its range in this region has probably not changed.


#### 392 Barn Owl

#### *Tyto alba* Coruja-das-torres

An uncommon resident of all wooded habitats where suitable nest sites are available. Most observations were made away from human habitation (pers. obs.), suggesting that in this region the species nests more often in tree cavities than in buildings. It occurs singly or in pairs. It was probably overlooked at some localities, because of its nocturnal habits. A density of 1 bird/192 ha has been estimated in the Northern Province, South Africa, and higher densities occur when prey is abundant (ASAB1: 574–575). The population probably exceeds 10 000 birds. Breeding may occur throughout the year, with a peak in early winter (ASAB1: 574–575). Its numbers have increased elsewhere in southern Africa as a result of utilisation of man-made nest sites (ASAB1: 574–575).



**393 Grass Owl** *Tyto capensis* Coruja-do-capim

A bird was seen in the Maputo Elephant Reserve (2632BD) in July 1995 (M. Botha). It is probably a rare resident in marshland. It has probably been overlooked in some localities owing to its nocturnal habits. Prior to this survey it was observed at Chicumbane (2533BA) (Clancey 1996). Breeding is likely to occur from March to July (ASAB1: 576–577).



#### **394 Wood Owl** *Strix woodfordii*

Coruja-da-floresta

A common resident of woodlands, where it occurs singly or in pairs. It has probably been overlooked in some localities owing to its nocturnal habits. The population probably exceeds 20 000 birds. Breeding occurs in early summer (ASAB1: 578–579).



#### **395 Marsh Owl** *Asio capensis* Coruja-dos-pântanos

A rare inhabitant of marshland. The species is nomadic (ASAB1: 580–581) and it is not clear whether it is resident in the region or perhaps an occasional visitor. Prior to this survey it was reported from Xai-Xai (2533BA), Canicado (2433CA) and Inhambane (2335CD) (Herdam 1994; Clancey 1996). It was probably overlooked at some localities owing to its largely nocturnal habits and has probably declined as a result of the disturbance of marshlands. Breeding occurs mainly in winter (ASAB1: 580–581).



#### 396 African Scops Owl

#### *Otus senegalensis* Mocho-de-orelhas-africano

A common resident of arid woodlands, where it occurs singly or in pairs. It has probably been overlooked in some localities owing to its nocturnal habits. It undertakes seasonal or nomadic movements in parts of its southern African range (ASAB1: 582–583), but there is no evidence for such movements in this region. Breeding occurs from July to December (ASAB1: 582–583). The population probably exceeds 20 000 birds.



#### 397 Whitefaced Owl

*Otus leucotis* Mocho-de-faces-brancas

An uncommon resident of woodlands, where it occurs singly or in pairs. It has probably been overlooked in some localities owing to its nocturnal habits. A density of 1 pair/350 ha was estimated in the Northern Province, South Africa (Tarboton *et al.* 1987). The population probably exceeds 5000 birds. Breeding has been reported from May to December in the neighbouring parts of southern Africa (ASAB1: 584–585) and was observed on Inhaca Island (2632BB) in October and November.



# **398 Pearlspotted Owl** *Glaucidium perlatum*

Mocho-perlado

An uncommon resident occurring mostly in arid woodlands and savanna but also in dense coastal woodland at Maputo (2532DC) and Inhaca Island (2632BB). It occurs singly or in pairs. It has probably been overlooked in some localities owing to its nocturnal habits. Breeding in southern Africa takes place from September to February (ASAB1: 586–587). The population probably exceeds 5000 birds.





An uncommon resident of dense woodlands. It occurs singly or in pairs. It has probably been overlooked in some localities owing to its nocturnal habits. The population probably exceeds 5000 birds. Two subspecies are recognised in the region, *G. c. capense* along the coast and *G. c. ngamiense* inland (Clancey 1996). Breeding in southern Africa takes place in early summer (ASAB1: 588–589).



#### 401 Spotted Eagle Owl

#### *Bubo africanus* Corujão-africano

A common resident of all wooded habitats. It occurs singly or in pairs. It has probably been overlooked in some localities owing to its nocturnal habits. Density estimates elsewhere in southern Africa range from 1 pair/6200 ha to 1 pair/190 ha (ASAB1: 592–593). The population probably exceeds 4000 birds. Breeding usually takes place in early summer (ASAB1: 592–593).



#### 402 Giant Eagle Owl

Bubo lacteus Corujão-leitoso

An uncommon resident of woodlands which occurs singly or in pairs. It has probably been overlooked in some localities owing to its nocturnal habits. Prior to this survey it was reported from Porto Henrique (2632AD) and Chimonzo (2433CD) (Clancey 1996). A density of 1 pair/7000 ha was estimated in the Northern Province, South Africa (Tarboton *et al.* 1987). The population probably exceeds 500 birds. Egglaying in southern Africa occurs in winter and early spring (ASAB1: 594–595) and breeding was observed here in July.



#### **403 Pel's Fishing Owl** *Scotopelia peli* Corujão-pesqueiro

A rare breeding resident of riverine woodland, where it occurs in pairs. An adult was seen at (2331BD) near Macandazulo in July 1996 and November 1997 and a juvenile on Bazaruto Island in January 1997 (U. & P. Kohler). It has probably been overlooked at some localities owing to its nocturnal habits. Prior to this survey it was reported from Bela Vista (2632BC) and Goba (2632AA) (Clancey 1996) and it is likely that it still occurs in those vicinities. The species disappeared from the Umbeluzi Gorge in the neighbouring part of Swaziland after floods associated with Cyclone Demoina destroyed the riverine forest in February 1984 (Parker 1994a). It is possible that similar losses occurred on the Mozambican side of the border. The population probably numbers fewer than 50 birds. It has probably declined in numbers as a result of human disturbance along rivers. It is threatened in this region.



# 404 European Nightjar

*Caprimulgus europaeus* Noitibó da Europa

A nonbreeding Palearctic summer migrant. Single birds were observed at (2432CC) in January 1996 and (2231CB) in March 1997 in *Acacia* woodland. It was doubtless overlooked in other localities owing to its nocturnal habits and because it does not call while in Africa. It is believed that most birds reaching southern Africa are of the sub-species *C. e. sarudnyi* from central Eurasia (Clancey & Mendelsohn 1979).



#### 405 Fierynecked Nightjar

#### *Caprimulgus pectoralis* Noitibó-de-pescoço-dourado

A common resident of woodlands and savanna which occurs singly or in pairs. It has probably been overlooked in some localities owing to its nocturnal habits. It was not reported from densely populated areas near the coast. Fluctuations in reporting rates probably relate to fluctuations in calling frequency rather than seasonal movements, although the species is considered to be a summer migrant in the more northerly parts of southern Africa (ASAB1: 598–599). The population probably exceeds 5000 birds. Breeding in southern Africa occurs from August to January, peaking September to November (ASAB1: 598–599).



**407** Natal Nightjar *Caprimulgus natalensis* Noitibó-de-cauda-branca

The species is probably a breeding resident in marshlands near the coast. It was observed at Catuane (2632CD) in July 1997 and near Marao (2434AD) in August and October 1996. It was probably overlooked at some localities owing to its nocturnal habits. Prior to this survey it was reported from the Maputo district (Clancey 1996). Breeding occurs from August to November (ASAB1: 608).



#### **408 Freckled Nightjar** *Caprimulgus tristigma*

#### Noitibó-sardento

The species was observed once near Goba (2632AC) in August 1997, but is probably a breeding resident in the Libombo Mountains. It is likely to have been overlooked at other localities within the Libombos on account of its nocturnal habits. It has not previously been reported in the region, although Clancey (1996) described it as 'probably present in the Libombos and their foothills'. Breeding in southern Africa occurs from August to December with an egglaying peak September to November (Irwin 1981).



#### 409 Mozambique Nightjar

*Caprimulgus fossii* Noitibó de Moçambique

A common resident of woodland and savanna, where it occurs singly or in pairs. It has probably been overlooked in some localities owing to its nocturnal habits. It was not encountered in the most arid parts and in the most densely populated parts of the region. The population probably exceeds 2000 birds. The peak in reporting rates in early summer probably reflects increased calling during the breeding season rather than seasonal movements. It is regarded as a summer migrant in the more northerly parts of southern Africa (ASAB1: 604–605). Egglaying records in southern Africa span August to December (ASAB1: 604–605).



#### 411 European Swift

#### Apus apus

Andorinhão-preto-europeu

A common nonbreeding Palearctic summer migrant. It may be seen over any habitat in flocks that sometimes number hundreds of birds. The number visiting the region probably exceeds 5000.



#### 412 Black Swift

Apus barbatus Andorinhão-preto-africano

The species is probably a breeding resident in the Libombo Mountains along the border with Swaziland, where a flock of more than 50 birds was observed in August 1997. It has not previously been reported from the region, though Clancey (1996) considered that it 'almost certainly ranges seasonally into southern Mozambique'. Breeding in southern Africa occurs throughout the summer (ASAB1: 612–613).



# **415 Whiterumped Swift** *Apus caffer* Andorinhão-cafre

An uncommon breeding intra-African summer migrant. It is usually encountered in pairs or occasionally groups of up to 10 birds, from September to May. One July record indicates occasional overwintering. Arrival appears to be later here than in the neighbouring part of South Africa (ASAB1: 616-617). Away from the Libombo mountains, it is restricted to localities where road bridges or other concrete structures provide suitable nesting sites. Before man-made structures were available, it was presumably restricted to the Libombo mountain range along the western border, where rock faces provide natural nesting sites. It often usurps and modifies nests built by swallows (ASAB1: 616-617), but also constructs its own nests (pers. obs.). Brooke's comment that it is 'perhaps most abundant in Mozambique' (ASAB1: 616) must refer to the territory north of the Save River. The population probably exceeds 1000 birds. Egglaving in the neighbouring regions has been reported from August to April (ASAB1: 616-617).



#### 416 Horus Swift

Apus horus Andorinhão-das-barreiras

An uncommon breeding winter visitor. Winter breeding is suspected because birds frequently entered nest holes, but is not confirmed. Winter breeding has also been reported from the Zambezi River valley, Zimbabwe, but it is a summer breeding migrant elsewhere in southern Africa (ASAB1: 618– 619). It occurs in flocks of up to 20 birds wherever large sandbanks provide suitable nesting sites. The population probably exceeds 1000 birds.



#### 417 Little Swift

#### Apus affinis Andorinhão-pequeno

A common breeding resident. It occurs in flocks which may number more than 100 birds, wherever large buildings, road bridges or rock faces provide suitable nesting sites and surface water is available. It is most numerous within the city of Maputo (2532DC), where nesting sites are abundant. Before concrete buildings became available as nest sites, it was probably restricted to the Libombo Mountains along the western border. Its range and numbers have increased dramatically throughout southern Africa (ASAB1: 620–621). The population probably exceeds 5000 birds. In neighbouring South Africa egglaying takes place from September to April (Tarboton *et al.* 1987).



#### **421 Palm Swift** *Cypsiurus parvus* Andorinhão-das-palmeiras

A common breeding resident, mainly along the coast. It is restricted by the availability of large palm trees for nesting. It was much less numerous before the introduction of alien coconut palms and may have been absent from the south of this region before 1930 (ASAB1: 628–629). It occurs most commonly where palm trees are found amidst a mosaic of other habitats including wetlands. The clear gap separating northern and southern populations coincides with an absence of wetlands. It has increased its range and numbers across most of southern Africa (ASAB1: 628–629). The population probably exceeds 1000 birds. Breeding in southern Africa occurs throughout the year with a summer peak (ASAB1: 628–629).



#### 422 Mottled Spinetail

#### *Telacanthura ussheri* Rabo-espinhoso-malhado

An uncommon breeding resident of woodlands where Baobab trees *Adansonia digitata* are available for nesting. It was encountered most often among the moist woodlands and not at all in Mopane woodlands (*contra* ASAB1: 630). It may be seen singly or in groups of up to 10 birds. The population probably exceeds 1000 birds.



#### 423 Böhm's Spinetail

*Neafrapus boehmi* Rabo-espinhoso de Böhm

A common breeding resident of woodlands, especially where Baobab *Adansonia digitata* trees are available for nesting and roosting. The southernmost records (2433BB, 2434AA,C) do not coincide with the occurrence of Baobabs and presumably other large trees are utilised. It is encountered in flocks of up to 20 birds which spend most of their time in the near vicinity of the trees in which they roost. It was not encountered in Mopane woodland (*contra* ASAB1: 631). In Zimbabwe there was a sharp drop in reporting rates during late summer (ASAB1: 631), but there is no evidence for seasonal movements in this region.



#### 424 Speckled Mousebird

#### Colius striatus

Rabo-de-junco-de-peito-barrado

A common breeding resident of woodlands where it is encountered in groups of up to 20 birds. Although it favours denser woodland than the Redfaced Mousebird, the two species overlap over most of the region. It is absent from the most arid parts and also from an area of mixed woodlands near the coast in the north. The population probably exceeds 100 000 birds. In southern Africa breeding has been recorded throughout the year with a summer peak (ASAB1: 636–637). Birds occurring south of the Inkomati River floodplain have been assigned to the sub-species C. s. minor and those north of the floodplain to C. s. integralis (Clancey 1996).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	7	<5	<5	<5



#### 426 Redfaced Mousebird

Urocolius indicus

Rabo-de-junco-de-faces-vermelhas

A common breeding resident in the more open woodlands and savanna, where it is encountered in flocks of up to 10 birds. Although it favours arid woodlands more than the Speckled Mousebird, the two species overlap over most of the region. The population probably exceeds 500 000 birds. In southern Africa breeding has been recorded throughout the year with a summer peak (ASAB1: 636–637).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	35	18	<5	7



#### **427 Narina Trogon** *Apaloderma narina* Republicano

An uncommon breeding resident of dense woodlands and forest where it is encountered singly or in pairs. The birds encountered near the Limpopo River in the west were found in Ironwood *Androstachys johnsonii* forests. It was probably overlooked at some localities owing to its habit of skulking within the foliage. The population probably exceeds 2000 birds. It has declined along the coast owing to deforestation. There is no evidence for seasonal movements in this region. Breeding occurs from October to January in South Africa (ASAB1: 638–639).



#### 428 Pied Kingfisher

*Ceryle rudis* Pica-peixe-malhado

A common breeding resident at both inland and coastal wetlands. It is usually encountered in pairs. It is restricted to areas where earth banks are available for nesting. The population probably exceeds 5000 birds. Breeding in the neighbouring regions occurs in summer (ASAB1: 640–641).



#### 429 Giant Kingfisher

#### *Megaceryle maxima* Pica-peixe-gigante

An uncommon breeding resident of freshwater wetlands, where it is usually encountered in pairs. It is restricted to areas where earth banks are available for nesting. The discontinuity across the border with South Africa is due to the relative scarcity of water courses to the east of the Libombo Mountains. The population probably exceeds 1000 birds. Breeding in southern Africa occurs in early summer (ASAB1: 642–643).



#### 431 Malachite Kingfisher

Alcedo cristata Pica-peixe-de-poupa

A common breeding resident at freshwater wetlands. It occurs in pairs wherever suitable perches (usually reeds) are available at the water's edge and earth banks are available for nesting. It was observed almost exclusively at permanent waters and there was no evidence for seasonal movements in this region. The discontinuity across the border with South Africa is due to the relative scarcity of wetlands to the east of the Libombo Mountains. The population probably exceeds 2000 birds. Breeding in the neighbouring regions occurs in summer (ASAB1: 646–647).



#### 432 Pygmy Kingfisher

#### *Ispidina picta* Pica-peixe-pigmeu

A rare breeding summer migrant to woodlands. The scarcity of records suggest that its range extends only marginally into this region. It was observed singly. It has previously been recorded from Maputo (2532DC), Umbeluzi (2632AA), Canicado (2433CA), and Inhambane (2335CD) (Herdam 1994; Clancey 1996). The population probably does not exceed 400 birds. Breeding in southern Africa takes place from September to February (ASAB1: 648–649).



#### 433 Woodland Kingfisher

Halcyon senegalensis Pica-peixe do Senegal

An uncommon breeding intra-African migrant which occurs in pairs in woodlands. Departure appears to be earlier here and in Swaziland than in the neighbouring regions (Parker 1994a; ASAB1: 650–651). Its range overlaps that of the Brownhooded Kingfisher, which it dominates, sometimes driving it away from prime foraging localities (pers. obs.). The population probably exceeds 2000 birds. Breeding records in southern Africa span the period of its stay (ASAB1: 650–651).



#### **434 Mangrove Kingfisher** *Halcyon senegaloides*

#### Pica-peixe-dos-mangais

An uncommon resident of mangrove forests and neighbouring woodlands which was observed singly. Previously also recorded from Marracuene (2532DA), Bela Vista (2632BC), Manhica (2532BD), and Vilanculos (2135CD) (Herdam 1994; Clancey 1996). The southernmost population in South Africa migrates northwards in winter (ASAB1: 652–653). There were too few observations to clarify its seasonal movements in this region and it is not certain that it breeds here. It has disappeared from densely populated localities where mangroves have been destroyed for firewood and neighbouring woodlands replaced with alien vegetation. The population probably does not exceed 400 birds and it is threatened in this region.



#### 435 Brownhooded Kingfisher

*Halcyon albiventris* Pica-peixe-de-barrete-castanho

An uncommon breeding resident of woodlands which occurs in pairs. It is restricted to areas where earth banks are available for nesting. Its range overlaps that of the similar migratory Woodland Kingfisher and the latter sometimes excludes it from prime foraging sites during its stay (pers. obs.). Breeding in the neighbouring regions occurs in summer with an October to January peak (ASAB1: 654–655) and was observed here in November. The population probably exceeds 50 000 birds. Birds in the south of the region have been ascribed to the subspecies *H. a. vociferans* which is replaced by *H. a. orientalis* from Inhambane (2335DC) northwards (Clancey 1996).



#### 436 Greyhooded Kingfisher

#### *Halcyon leucocephala* Pica-peixe-de-barrete-cinzento

An uncommon summer visitor to woodlands. The scarcity of records suggests that its range extends only marginally into this region. It has previously been reported at Chokwe (2433CA) in March 1979 (Herdam 1994). Clancey (1996) stated that it 'clearly occurs' on the basis of records from the South African border. Breeding in the neighbouring regions occurs from September to December (ASAB1: 656–657). The population may not exceed 200 birds.



#### 437 Striped Kingfisher

Halcyon chelicuti Pica-peixe-riscado

A common breeding resident in woodlands, where it occurs in pairs. It is most numerous in *Acacia* woodlands. A density of 1 pair/75 ha in broadleaved woodland was estimated at a locality in the Northern Province, South Africa, where it was absent from *Acacia* woodland (Tarboton *et al.* 1987). The population probably exceeds 600 000 birds. Breeding occurs in summer (ASAB1: 658–659) and was observed in October. A partial migration from west to east has been suggested in South Africa (ASAB1: 658–659) but there was no evidence for seasonal movements in this region.

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	11	<5	9	4



#### 438 European Bee-eater

## Merops apiaster

#### Abelharuco-europeu

A common nonbreeding Palearctic summer migrant. It is seen in flocks which may number up to 100 birds over all habitat types. Because there were no winter records, it is unlikely that birds of the South African breeding population reach this region (ASAB1: 660–662). The population probably exceeds 5000 birds, or 0.05% of the global population (Fry 1984).



#### 439 Olive Bee-eater

Merops superciliosus Abelharuco-de-garganta-vermelha

An uncommon breeding resident of the Bazaruto Archipelago (2135CB) and adjoining mainland, occurring as far south as Inhaca Island (2632BB) as a vagrant. In Namibia and Zimbabwe it is a breeding summer migrant (ASAB1: 663). It nests in sandbanks and forages over all coastal habitats. It is usually encountered in flocks of up to 10 birds. The population probably exceeds 400 birds. Breeding was observed in September.



#### 440 Bluecheeked Bee-eater

#### Merops persicus Abelharuco-persa

A common nonbreeding Palearctic summer migrant which is seen in flocks of up to 20 birds. It is seen most often around wetlands but may occur in any habitat. The gaps in its distribution correspond with an absence of wetlands. It is present for a shorter period than the European Bee-eater, but outnumbers that species by more than two to one. There are two main areas of concentration in southern Africa: in Botswana, and this region, and only stragglers occur elsewhere (ASAB1: 664–665). The population probably exceeds 20 000 birds.



#### 441 Carmine Bee-eater

*Merops nubicoides* Abelharuco-róseo

An uncommon nonbreeding intra-African late-summer migrant to woodlands and savanna. It is encountered singly and in flocks of up to 10 birds. It was probably not recorded at some of the localities where it occurs because it is present for a short period each year. It avoids the most arid part of the region. It breeds in northern Botswana, northern Zimbabwe and central Mozambique in early summer before dispersing southwards to reach this region in January. It departs for wintering grounds in equatorial Africa from March (ASAB1: 666–667). The population probably exceeds 2000 birds.



#### 443 Whitefronted Bee-eater

#### Merops bullockoides Abelharuco-de-fronte-branca

An uncommon breeding resident of riverine woodlands, with concentrations along the upper Limpopo River and a seemingly isolated population at the coast around Pomene (2235DC). It occurs in flocks of up to 20 birds and is restricted to areas where large earth banks are available for nesting. The population probably exceeds 1000 birds. Breeding in southern Africa occurs mostly from September to November (ASAB1: 672–673).



#### 444 Little Bee-eater

*Merops pusillus* Abelharuco-dourado

A common breeding resident of grassland, savanna and the fringes of woodlands. It is encountered in pairs or family groups of up to 10 birds, usually in the vicinity of surface water. It uses low perches: grass stems, reeds and bushes, and therefore interacts minimally with the Swallowtailed Beeeater when they occur together. The population probably exceeds 100 000 birds, which is about 0.15% of the global population (Fry et al. 1988). A density of 4 birds/100 ha was estimated in broadleaved woodland in the Northern Province, South Africa (Tarboton et al. 1987). Egglaving in southern Africa has been reported from September to February, with a peak from September to November (ASAB1: 674-675). Breeding is timed to occur before the heaviest rains, possibly to reduce the risk of nest holes being flooded. It is one of the hosts of the brood parasitic Greater Honeyguide (Fry et al. 1988). Partial migration out of the dry west of southern Africa eastwards in winter has been suggested (ASAB1: 674-675). The collection of a specimen ascribed to the western race M. p. argutus at Mapinhane (2235AC) in June 1968 (Clancey 1996) supports that hypothesis, and shows that the migrants may reach this region. The winter peak in reporting rates may reflect an influx, but could also be due to changes in conspicuousness. The race M. p. meridionalis is believed to be sedentary.

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	9	<5	<5	5



#### **445 Swallowtailed Bee-eater** *Merops hirundineus* Abelharuco-andorinha

An uncommon breeding resident of woodlands and savanna north of the Limpopo River, encountered in flocks of up to 10 birds. It is less dependent on the availability of surface water than the Little Bee-eater. It usually perches on tree tops and therefore avoids interaction with that species when they occur together. The population probably exceeds 20 000 birds. Breeding in southern Africa occurs in spring and early summer (ASAB1: 669–671) and was observed here in November. A partial migration out of the arid west of southern Africa eastwards in winter has been reported (ASAB1: 669–671). The collection of two specimens ascribed to the western race *M. h. hirundineus* at Massinga (2335AC) in 1966 (Clancey 1996) shows that the migrants may reach this region. Most birds in this region are believed to be of the race *furcatus* which is sedentary (Clancey 1996).



#### **446 European Roller** *Coracias garrulus*

Rolieiro-europeu

A common nonbreeding Palearctic summer migrant which occurs singly in woodlands and savanna. The population probably exceeds 2000 birds, which is about 0.05% of the global population (Fry *et al.* 1992). The races *C. g. garrulus* and *semenowi* are both believed to occur here (ASAB1: 676–677).



#### **447 Lilacbreasted Roller** *Coracias caudata* Rolieiro-de-peito-lilás

A common breeding resident which occurs in pairs in savanna and woodlands with clearings, or any habitat which combines open spaces with perches and trees suitable for nesting. It has adapted to man-made environments and is particularly common among cultivated lands on the coastal plain. The population probably exceeds 200 000 birds. Breeding in southern Africa has been recorded from September to February, with a peak from September to December (ASAB1: 678–679) and was observed here in September and November.

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	18	<5	<5	6



#### 448 Rackettailed Roller

*Coracias spatulata* Rolieiro-cauda-de-raquete

A common breeding resident of tall *Brachystegia*, *Julbernadia* and mixed broadleaved woodlands, where it occurs in pairs. The population probably exceeds 2000 birds. It has declined in this region, as in Zimbabwe and Malawi (ASAB1: 684), as a result of the clearing of woodlands for agriculture. Egglaying in neighbouring Zimbabwe has been reported from September to December with a peak in October (Irwin 1981).



#### 449 Purple Roller

#### *Coracias naevia* Rolieiro-de-sobrancelhas-brancas

An uncommon breeding resident of arid woodlands where it occurs singly or in pairs. It has previously been recorded at Porto Henrique (2632AD) (Clancey 1996). The population probably exceeds 1000 birds. Dispersion away from its breeding range occurs in winter (ASAB1: 680–681). The fluctuation in reporting rates suggest that there may be a small resident population which is augmented by a winter influx from the north. Breeding in southern Africa occurs throughout summer (ASAB1: 680–681).



### 450 Broadbilled Roller

*Eurystomus glaucurus* Rolieiro-de-bico-grosso

A common breeding intra-African summer migrant which occurs in pairs in tall woodland. The population probably exceeds 4000 birds. There appears to be a gap between the coastal population and a western riverine population. Breeding birds are of the race *E. g. suahelicus* but a specimen collected at Inhambane was ascribed to the nominate race, which breeds in Malagasy (Clancey 1996). The pattern of gradual departure from late December onwards observed elsewhere in southern Africa (ASAB1: 682–683) is repeated here. Egglaying in southern Africa occurs from October to December (ASAB1: 682–683).



#### **451 Hoopoe**

#### *Upupa epops* Poupa

A common breeding resident and partial migrant which occurs in pairs in woodlands and savanna. The combined population (residents and migrants) probably exceeds 50 000 birds. A partial migration across southern Africa from northwest to southeast in winter has been described (ASAB1: 685–687). The peak in reporting rates suggests that migrants are present here from June to December. Breeding throughout southern Africa occurs mostly from September to December (ASAB1: 685–687), which implies that the migratory birds breed here as suggested by Harrison (ASAB1: 685–687; *contra* Clancey 1996). Clancey (1996) ascribed the resident birds to the race *U. e. africana* and the migrants to *U. e. minor*, but resident and migratory birds cannot differ subspecifically if both populations breed here.



#### 452 Redbilled Woodhoopoe

*Phoeniculus purpureus* Zombeteiro-de-bico-vermelho

A common breeding resident which is encountered in family groups of up to 10 birds in woodland. The highest reporting rates were registered in the most arid part of the region. The population probably exceeds 100 000 birds. Breeding in the neighbouring regions occurs throughout the year with a spring peak (ASAB1: 688–689) and was observed here in January. In the Eastern Cape, South Africa, Greater Honeyguides were found to parasitize 6–8% of nests (Du Plessis 1994a).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	8	<5	<5	14



#### 454 Scimitarbilled Woodhoopoe

Rhinopomastus cyanomelas

#### Bico-de-cimitarra

A common breeding resident of woodlands, avoiding dense woodlands and forest and densely populated coastal regions. It occurs singly and in pairs. The population probably exceeds 20 000 birds. In the neighbouring regions breeding occurs mostly from October to January (ASAB1: 690–691). It is an occasional host of the brood parasitic Greater Honeyguide (Friedmann 1955).



#### 455 Trumpeter Hornbill

*Bycanistes bucinator* Calau-trombeteiro

An uncommon breeding resident of forest and tall woodlands; it occurs singly or in flocks of up to 20 birds. The gap between northern and southern populations coincides with the floodplains of the Inkomati River. The population probably exceeds 2000 birds and may be restricted by the availability of nest sites. In South Africa, fewer than three suitable nest sites were found per 100 ha of suitable habitat (Du Plessis 1994b). Egglaying has been reported from October to January in South Africa (Kemp 1995).



#### 457 Grey Hornbill

#### *Tockus nasutus* Calau-cinzento

A common breeding resident which occurs in pairs and flocks of up to 20 birds in arid woodlands and savanna. Although most numerous in Mopane woodlands, it was also encountered in all the more arid woodland types. Density estimates elsewhere in southern Africa range from 1 pair/63 ha to 1 pair/6 ha (in riverine woodland) (ASAB1: 696–697). It is nomadic during winter, and partially migratory in the northern parts of southern Africa (ASAB1: 696–697). There is no evidence for seasonal movements in this region. Breeding in the neighbouring regions occurs throughout summer (ASAB1: 696–697). The population probably exceeds 50 000 birds.

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	<5	10	<5	<5



## 458 Redbilled Hornbill

*Tockus erythrorhynchus* Calau-de-bico-vermelho

An uncommon breeding resident which is found in pairs in arid savanna and light woodlands between the Inkomati and Limpopo Rivers. Density estimates from elsewhere in southern Africa range from 1 pair/50 ha to 1 pair/5 ha (ASAB1: 698–699). Densities in this region are much lower, and its occurrence here is peripheral. Although it ranges more widely in winter than during the breeding season, no regular seasonal movements have been detected (ASAB1: 698–699). The population is unlikely to exceed 500 birds. In southern Africa, breeding occurs from November to June with a peak December to March (ASAB1: 698–699).

#### SOUTHERN YELLOWBILLED HORNBILL



**CROWNED HORNBILL** 

# 22°S 24°

Recorded in 182 grid cells, 55.3 %

Mean reporting rate for range: 38.7 %

JFMAMJJASOND

26

36

Total records: 526

100 %

0

3/



#### **459 Southern Yellowbilled Hornbill**

#### Tockus leucomelas

#### Calau-de-bico-amarelo

A common breeding resident which is found in pairs in arid woodlands and savanna. The eastern boundary of its range marks the transition from arid to moist woodland types. Density estimates elsewhere in southern Africa range from 1 pair/16 ha to 1 pair/140 ha (ASAB1: 700). An increase in reporting rates in winter has been noted throughout southern Africa, and relates to decreased conspicuousness during the breeding season and post-breeding dispersal (ASAB1: 700). The population probably exceeds one million birds. In the neighbouring regions breeding occurs during summer with a peak from November to February (ASAB1: 700-701). It is frequently trapped and eaten by peasant farmers (M. Rees pers. comm.).

Woodland turner		MOD	MIO	ODW
woodiand type:	ACA	MOP	MIO	UB W
Birds/100 ha:	25	22	<5	30

#### 460 Crowned Hornbill

Tockus alboterminatus Calau-coroado

A common breeding resident of dense woodland and forest which occurs in flocks of up to 20 birds. It is complementary to some extant with the Grey Hornbill which occurs in arid woodlands, but both species are nomadic and overlap occasionally. The population probably exceeds 50 000 birds. There is no evidence for any seasonal movements. Breeding in southern Africa occurs in summer (ASAB1: 702-703). It is regarded as a pest and persecuted by farmers in fruit-producing areas (M. Rees pers. comm.).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	<5	<5	<5	9



#### 463 Ground Hornbill

#### *Bucorvus leadbeateri* Calau-gigante

An uncommon breeding resident of arid woodlands where it is found in family groups of up to six birds. It is absent from densely populated areas as a result of hunting and it is not known to what extent, if at all, it used to occur along the coast. In the neighbouring part of South Africa it is largely restricted to conservation areas (ASAB1: 708–709). Prior to this survey it was reported from the Maputo Elephant Reserve (2632BD) (Tello 1973). The population may exceed 600 birds. Throughout its range, the main egglaying period is September–December (ASAB1: 708–709).



#### 464 Blackcollared Barbet

*Lybius torquatus* Barbaças-de-colar-preto

A common breeding resident in woodlands, where it occurs in pairs. It was encountered in all woodland types but was most numerous in *Brachystegia* and *Julbernadia* woodland and least numerous in arid woodlands where it overlaps with the Pied Barbet. The population probably exceeds 200 000 birds. Egglaying in southern Africa has been recorded from September–February (ASAB1: 710–711). It is a host of both the Lesser and Greater Honeyguides (Maclean 1993).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	<5	<5	16	<5



#### 465 Pied Barbet

#### *Tricholaema leucomelas* Barbaças-malhado

A common breeding resident of arid woodlands and savanna, but scarce in Mopane woodlands. It is encountered in pairs. It tends to replace the Blackcollared Barbet in the more arid savannas but also overlaps with that species over a wide area. The population probably exceeds 100 000 birds. It has expanded its range in South Africa in response to the spread of alien trees (ASAB1: 712). Its range and status are probably unchanged in this region. It is a frequent host of the Lesser Honeyguide and an occasional host of the Greater Honeyguide (Maclean 1993). Egglaying in southern Africa has been recorded from August to April with a peak from October to December (ASAB1: 712–713).

		1.000	1.000	
Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	12	<5	9	9

#### 466 White-eared Barbet

*Stactolaema leucotis* Barbaças-de-orelhas-brancas

An uncommon breeding resident of coastal forest where it is found in pairs or groups of up to eight birds. Prior to this survey it has been reported from Manhica (2532BD), Chimonzo (2433CD), Inhambane (2335CD) and Massinga (2335AD) (Clancey 1996). Its range would therefore appear to have contracted within the region, as a result of the destruction of coastal forests. It is a host of the Lesser Honeyguide (Maclean 1993). Egglaying in southern Africa has been reported from October to January (Irwin 1981). The population probably does not exceed 500 birds and it is threatened in this region.





#### 469 Redfronted Tinker Barbet

#### *Pogoniulus pusillus* Barbadinho-de-fronte-vermelha

An uncommon breeding resident of woodlands in the extreme south of the region, where it occurs in pairs. It is replaced by the similar Yellowfronted Tinker Barbet north of the Inkomati River. The population probably exceeds 2000 birds. Breeding in southern Africa has been reported throughout summer (ASAB1: 718).



#### 470 Yellowfronted Tinker Barbet

Pogoniulus chrysoconus Barbadinho-de-fronte-amarela

An uncommon breeding resident of light broadleaved woodland and savanna where it occurs in pairs. It is replaced by the Redfronted Tinker Barbet south of the Inkomati River. The population probably exceeds 10 000 birds. Breeding in southern Africa has been reported throughout the year, but mostly in summer (ASAB1: 720–721).



#### **471 Goldenrumped Tinker Barbet**

#### Pogoniulus bilineatus Barbadinho-de-rabadilha-limão

A common breeding resident of coastal and riverine woodland and forest which occurs in pairs. It tends to prefer denser woodlands than the Yellow and Redfronted Tinker Barbets, but also occurs alongside them. The population probably exceeds 40 000 birds. Egglaying in the neighbouring regions has been reported from October to February (ASAB1: 722– 723).



#### **473** Crested Barbet *Trachyphonus vaillantii* Barbaças-de-crista

A common breeding resident of arid woodland and savanna where it occurs in pairs. A density of 1 pair/9.5 ha was estimated at a locality in the Northern Province, South Africa (Fry *et al.* 1988). The population probably exceeds 50 000 birds. Egglaying has been reported in southern Africa from July to April with a peak September to December (ASAB1: 724–725). It is a host of both the Lesser and Greater Honeyguides (Maclean 1993). Its range in South Africa has expanded (ASAB1: 724–725), but its status and range in this region are probably unchanged.



#### 474 Greater Honeyguide

#### *Indicator indicator* Indicador-grande

An uncommon breeding resident of woodlands, where it is encountered singly. The population probably exceeds 5000 birds. The peak in reporting rates from June to November corresponds to the period when it is most vocal. Egglaying in the neighbouring regions has been recorded September to January with a peak in November (ASAB1: 726–727). It is a brood parasite of a range of hole-nesting hosts, the majority of which are bank-hole nesters rather than tree-hole nesters (Friedmann 1955).



#### 475 Scalythroated Honeyguide

Indicator variegatus Indicador-de-peito-escamoso

An uncommon breeding resident of dense coastal woodlands and forest, where it occurs singly. It is inconspicuous when not calling and was probably overlooked at some localities. It has previously been observed at Coguno (2434BC), Chimonzo (2433CD) and Panda (2434BA) (Clancey 1996) and has declined as a result of the destruction of coastal forests. The population probably exceeds 500 birds. Egglaying in southern Africa has been reported from September to January (ASAB1: 728–729). It was not recorded during the period January to March, possibly because it is silent after egglaying. It is a brood parasite of barbets, tinker barbets and woodpeckers (Fry *et al.* 1988).



#### **476 Lesser Honeyguide** *Indicator minor* Indicador-pequeno

An uncommon breeding resident of woodlands and savanna where it occurs singly. It is inconspicuous when not calling and is likely to have been overlooked at some localities. The population probably exceeds 1000 birds. Breeding in southern Africa has been reported from September to February with a peak October to November (ASAB1: 730–731). It is a brood parasite of a range of tree-hole nesting species and occasionally also bank-hole nesting species. The Blackcollared and Pied Barbets are believed to be the most frequent hosts (Friedmann 1955). While it has expanded its range in South Africa in response to the spread of alien vegetation and the range expansion of the Pied Barbet (ASAB1: 730–731), its range and status in this region are probably unchanged.



#### 478 Sharpbilled Honeyguide

Prodotiscus regulus Indicador-de-bico-aguçado

There were too few records of this species for its status to be determined. There are records from all seasons, and this suggests that it may be a breeding resident. It was observed singly in woodlands. It has previously been reported from Vila Franca do Save (2134BA) (Clancey 1996). Breeding in southern Africa has been reported from November to February (ASAB1: 732–733). It is a brood parasite of a number of small insectivorous species with spherical nests (ASAB1: 732–733); the Neddicky and Bleating Warbler are likely hosts in this region.



# **479** Slenderbilled Honeyguide *Prodotiscus zambesiae*

# Indicador-de-bico-fino

An uncommon breeding resident of *Brachystegia* woodlands where it is encountered singly. It is most conspicuous in winter when it regularly joins mixed-species bird parties, which may explain the concentration of observations in this season. The population probably does not exceed 500 birds. It is a brood parasite of the Yellow White-eye (Irwin 1981), but occurs within only a small part of the range of that species. Breeding is synchronised with that of the host species. It is threatened in this region as a result of the clearing of *Brachystegia* woodlands for slash-and-burn agriculture.



#### 481 Bennett's Woodpecker

*Campethera bennettii* Pica-pau de Bennett

An uncommon breeding resident in arid woodland, encountered singly or in pairs. Density estimates in suitable habitat in southern Africa range from 1 bird/200 ha to 1 bird/3.5 ha (ASAB1: 738–739). The population probably exceeds 1000 birds. It is believed to be sedentary in southern Africa (ASAB1: 738–739). Egglaying in neighbouring South Africa has been reported from September to February with a November to December peak (Tarboton *et al.* 1987).



#### 483 Goldentailed Woodpecker

#### *Campethera abingoni* Pica-pau-de-cauda-dourada

A common breeding resident which occurs in pairs in woodlands. Density estimates elsewhere in southern Africa range from 1 bird/200 ha to 1 bird/11 ha (ASAB1: 740–741). It is believed to be sedentary throughout southern Africa (ASAB1: 740–741). The population probably exceeds 20 000 birds. Egglaying in the neighbouring regions has been reported from August to December with a September to November peak (ASAB1: 740–741). The race *C. a. constricta* is believed to occur from Maputo southwards and is replaced by *C. a. vibrator* to the north (Clancey 1996). The Inkomati River floodplain is possibly a barrier between the two races.



#### 485 Little Spotted Woodpecker

*Campethera cailliautii* Pica-pau-de-dorso-verde

A single bird was observed in woodlands at Pomene (2235DC) in April 1996. It may have been overlooked at other localities because it is inconspicuous. Prior to this survey it was reported from Panda (2434BA), Massinga (2335AD), Mapinhane (2235AC), Zinave (2133BD) and Funhalouro (2334AB) (Clancey 1996). It has declined as a result of the destruction of coastal woodlands. It occurs more commonly north of the Save River (Clancey 1996).


#### 486 Cardinal Woodpecker

Dendropicos fuscescens Pica-pau-cardeal

A common breeding resident which occurs in pairs in woodlands. It is believed to be sedentary throughout southern Africa (ASAB1: 746–747). A density of 1 pair/50 ha was estimated in suitable habitat in South Africa (Tarboton 1980). The population probably exceeds 20 000 birds. Breeding in the neighbouring regions has been reported throughout the summer (ASAB1: 746–747). The race *D. f. intermedius* is believed to occur from Maputo southwards and is replaced by *D. f. xylobates* to the north (Clancey 1996).



#### 487 Bearded Woodpecker

*Thripias namaquus* Pica-pau-de-bigodes

A common breeding resident which occurs in pairs in most woodland types but is most common in arid woodlands and avoids forest. Estimated densities elsewhere in southern Africa range from 1 bird/200 ha to 1 bird/6 ha (ASAB1: 748-749). The population probably exceeds 5000 birds. It is believed to be sedentary throughout its southern African range (ASAB1: 748-749) and there was no evidence of seasonal movements in this region. Clancey (1996) suspected that the resident population near Panda (2434BA) was augmented by winter visitors, but did not disclose the grounds for his supposition. A slight increase in reporting rates in midwinter is likely to be related to increased conspicuousness. Egglaying in the neighbouring part of South Africa occurs from May to August (Tarboton et al. 1987). The race T. n. coalescens is reported to occur south of Maputo and northwards along the coast to Inhambane and to be replaced by the nominate race to the north and inland (Clancey 1996). The distribution map on the other hand shows a break between northern and southern populations coinciding with the floodplains of the Inkomati and Limpopo Rivers.



#### 489 Redthroated Wryneck

#### Jynx ruficollis

Torcicolo-de-garganta-castanha

A single bird was seen at Salamanga (2632BC) in September 1995. Prior to this survey it was reported at Zinave (2133BD) (Storer & Dalquest 1967). It is common on the central plateau of South Africa to the west (ASAB1: 752–753) but is a vagrant here.



## 490 African Broadbill

Smithornis capensis Bocarra

An uncommon breeding resident of woodland and forest. The southern population was found in coastal woodland and forest and is well separated from the northern population which occurs mostly within Ironwood *Androstachys johnsonii* forests and less frequently in coastal forest. It occurs in pairs. It is inconspicuous when not calling and was probably overlooked at some localities. The population probably exceeds 5000 birds. As in South Africa (ASAB2: 2), it has declined as a result of the destruction of coastal forests. Egglaying records in neighbouring KwaZulu-Natal, South Africa, span September–December (Dean 1971).

## **491 Angola Pitta** *Pitta angolensis* Pita de Angola

A single bird was seen in woodland on Santa Carolina Island (2135CB) in December 1995 (P. Dutton). It occurs regularly as an intra-African breeding migrant in coastal forests in central Mozambique (Clancey 1996) and this is the first record for Sul du Save.



#### **494 Rufousnaped Lark**

#### Mirafra africana Cotovia-de-nuca-vermelha

A common breeding resident of grassland and savanna, encountered singly or in pairs. It is absent from the most arid parts of the region. Lower reporting rates in winter are probably due to decreased conspicuousness while not calling and there is no evidence for seasonal movements. The population probably exceeds 50 000 birds. In the neighbouring part of South Africa, egglaving has been reported from October to February, mainly October-November (Tarboton et al. 1987).



## **496 Flappet Lark** Mirafra rufocinnamomea Cotovia-das-castanholas

A common breeding resident of grassland, savanna and woodland with clearings, encountered singly or in pairs. Density estimates elsewhere in its range vary from 1 bird/25 ha to 1 bird/ha (ASAB2: 12-13). A gap separating southern and northern populations coincides with the floodplains of the Inkomati and Limpopo Rivers. Lower reporting rates in winter were probably due to decreased conspicuousness when not calling. There is no evidence for seasonal movements. The population probably exceeds 5000 birds. Egglaying in the former Transvaal, South Africa, has been reported from November-February (Tarboton et al. 1987).



## **497 Fawncoloured Lark** *Mirafra africanoides* Cotovia-cor-de-areia

A common breeding resident of grassland, savanna and light woodland on a sandy substrate. It was encountered singly or in pairs. This population, which probably numbers more than 20 000 birds, appears to be separated from the population in the rest of southern Africa, which is concentrated in the arid west (ASAB2: 14–15). Density estimates in Botswana and the Northern Province, South Africa, range from 1 bird/37 ha to 1 bird/ha (ASAB2: 14–15). There is no evidence for seasonal movements in this region. Breeding elsewhere in southern Africa has been reported from September to April (ASAB2: 14–15).



**498 Sabota Lark** *Mirafra sabota* Cotovia de Sabota

A common breeding resident of arid woodlands and savanna, but is largely absent from the most arid part of the region, in the north-west. It is replaced by the Fawncoloured Lark on sandy soils. It was encountered singly or in pairs. Density estimates from elsewhere in southern Africa range from 1 bird/10 ha to 1 bird/1.2 ha in suitable habitat (ASAB2: 16–17). There is no evidence for seasonal movements. The population probably exceeds 20 000 birds. Egglaying in the former Transvaal, South Africa, was reported from October to February, mainly November and December (ASAB2: 16–17). The race *M. s. suffusca* is believed to occur throughout the region, but the western race *M. s. sabotoides* has also been reported here (Clancey 1996).



## 505 Dusky Lark

#### Pinarocorys nigricans Calhandra-sombria

An uncommon nonbreeding intra-African summer migrant from central Africa. It was usually observed singly in savannas and around cultivated lands but during late April 1997, flocks of up to 20 birds were seen at several localities, presumably on migration. Its appearance in late summer (January to May) and on northward migration reflects the pattern observed in Zimbabwe (ASAB2: 27). Southward migration presumably occurs farther west. It was probably not reported from some localities where it occurs because it is present in the region only for a short period. Two races, *P. n. nigricans* and *P. n. occidentis*, have both been reported in this region (Clancey 1996). The population probably exceeds 1000 birds.



### **507 Redcapped Lark** *Calandrella cinerea*

Cotovia-de-barrete-vermelho

An uncommon breeding resident of grasslands, where it is encountered singly or in groups of up to 10 birds. In southern Africa it is known to disperse away from its breeding range in winter (Parker 1994a; ASAB2: 30-31). There were too few records to clarify its seasonal movements in this region. Breeding in the neighbouring regions has been reported throughout the year, peaking August–September (ASAB2: 30-31). The race *C. c. alluvia* was described from Chicumbane (2533BA) on the Limpopo River floodplain (Clancey 1996). It is not known whether birds occurring in more arid habitat at Banhine (2233CC) are of this race or of race *C. c. nivenae* which occurs in the neighbouring part of South Africa. The population may exceed 1000 birds.



#### 515 Chestnutbacked Finchlark

### *Eremopterix leucotis* Cotovia-pardal-de-dorso-castanho

An uncommon breeding resident of arid grassland and savanna, where it is encountered in pairs or groups of up to 10 birds. It is more common in the arid regions farther west in southern Africa (ASAB2: 42–43) and occurs only peripherally here. Seasonal movements in southern Africa are irregular and poorly understood (ASAB2: 42–43). It was not reported here during the period October–December, corresponding with a decline in reporting rates over the same period in the southernmost part of its range in South Africa (ASAB2: 42–43). This may be due to changes in conspicuousness related to the breeding cycle. The population probably exceeds 10 000 birds. Breeding in southern Africa has been reported throughout the year with peaks in spring and autumn (ASAB2: 42–43)



#### 518 European Swallow

*Hirundo rustica* Andorinha-das-chaminés

A very common nonbreeding Palearctic summer migrant. It was observed over all habitats but is less common over woodlands in the north where surface water is scarce. It is usually seen in flocks which often number hundreds of birds. The number of birds visiting this region may exceed 5 million. No instances of overwintering were observed. Two birds ringed in England, one ringed in Belgium and one ringed in Gauteng, South Africa, have all been recovered in this region (SAFRING).



#### 522 Wiretailed Swallow

# Hirundo smithii

Andorinha-cauda-de-arame

An uncommon breeding resident. It is found in pairs near open water where nesting sites (usually man-made structures such as bridges or culverts) are available. There is no evidence for seasonal movements, and previous accounts which described it as a winter migrant are incorrect (Clancey 1996). This misconception may have been an artefact of the previous concentration of field exploration in the cooler months (e.g. Clancey 1996, pp. 7–8). It must have been far less numerous in the region before man-made structures provided nest sites. The population probably exceeds 2000 birds. Breeding in southern Africa has been reported throughout the year, with peaks in spring and autumn (ASAB2: 54–55) and was reported in this region in July and November.



#### 524 Redbreasted Swallow

*Hirundo semirufa* Andorinha-de-peito-ruivo

An uncommon breeding intra-African summer migrant to savannas. It is encountered in pairs and restricted to localities where suitable nest sites are available, usually road culverts or other concrete structures. It has not previously been recorded in the region (Clancey 1996), and because it is not readily overlooked, this probably indicates a recent range extension for the species, in response to increased availability of nest sites on man-made structures. Similar range expansions have occurred in South Africa (ASAB2: 60–61). The population may exceed 500 birds. Egglaying in the former Transvaal, South Africa, has been reported from October to March with a November to January peak (ASAB2: 60–61).



## **525 Mosque Swallow** *Hirundo senegalensis* Andorinha-das-mesquitas

An uncommon breeding resident of savanna and woodland. It occurs in pairs. It is usually seen in the vicinity of Baobab *Adonsonia digitata* trees (and rarely tall buildings) on which it nests. The population may exceed 5000 birds. Breeding has been reported throughout the year in southern Africa, but mostly in summer (ASAB2: 59). It has recently extended its range southward in South Africa (ASAB2: 59).



#### 527 Lesser Striped Swallow

Hirundo abyssinica Andorinha-estriada-pequena

An uncommon breeding resident and intra-African summer migrant. It occurs in flocks of up to 10 birds in light woodland, savanna and grassland. It is restricted to areas where suitable nest sites and surface water are available. It nests most often in derelict brick-and-mortar buildings from the colonial era in rural areas. Prior to the colonial era, it was probably restricted to the western frontier of the region, where rock faces in the Libombo range provide natural nest sites. It has increased similarly in other parts of southern Africa (ASAB2: 66-67). Although it was reported throughout the year, it is a partial migrant and tends to be more strongly migratory farther south in South Africa (ASAB2: 66-67). In neighbouring Swaziland it is absent only in the months of May and June (Parker 1994a). The population probably exceeds 10 000 birds. Breeding in the neighbouring regions has been recorded from August to May, peaking November and December (ASAB2: 66-67), and was observed in this region in August and September.



#### 529 Rock Martin

### *Hirundo fuligula* Andorinha-das-rochas-africana

An uncommon breeding resident of the Libombo Mountain range and vicinity. It was observed near Goba (2632AA) during April and July of 1995 in flocks of up to 10 birds. Breeding in the neighbouring regions has been reported mainly from September to January (ASAB2: 70–71). The population might not exceed 200 birds. It has increased in southern Africa by utilising buildings for nest sites (ASAB2: 70–71). It has not increased significantly in this region, despite occasional use of buildings for nest sites.



## **530 House Martin** *Delichon urbica* Andorinha-dos-beirais

An uncommon nonbreeding Palearctic summer migrant. It is encountered singly or in flocks which may number up to 50 birds and may be seen over any habitat type. It is difficult to identify when flying high overhead and was therefore probably overlooked at some localities. Overwintering was not observed. The population visiting the region may exceed 10 000 birds. It has not previously been reported from the region and Clancey (1996) stated that it was 'clearly overlooked'.



## 531 Greyrumped Swallow

## *Pseudhirundo griseopyga* Andorinha-de-rabadilha-cinzenta

An uncommon breeding resident of grassland and savanna. It is encountered in flocks which may number up to 30 birds. It is similar in appearance to the House Martin, but is usually readily identified because it flies close to the ground. It is present throughout the year (*contra* Clancey 1996). The population probably exceeds 10 000 birds. Breeding occurs in winter (ASAB2: 74–75) and the peak in reporting rates may be related to greater conspicuousness when breeding.



**532 Sand Martin** *Riparia riparia* Andorinha-das-barreiras

An uncommon nonbreeding Palearctic summer migrant which is seen singly and in flocks of up to 20 birds, most often over marshes. It is inconspicuous and was probably overlooked at some localities. The population visiting the region may exceed 1000 birds.



#### 533 Brownthroated Martin

# Riparia paludicola

Andorinha-das-barreiras-africana

An uncommon breeding resident around freshwater wetlands where sandbanks are available for nesting, encountered in flocks of up to 20 birds. In South Africa, it is resident in some areas and a winter visitor in others (ASAB2: 76–77). The population may exceed 1000 birds. In the neighbouring regions, egglaying was reported mostly from June to September (ASAB2: 76–77).



#### 534 Banded Martin

*Riparia cincta* Andorinha-de-colar

An uncommon breeding resident. It was encountered in pairs in marshland near the coast. It is a breeding summer migrant in most of its southern African range (ASAB2: 79–81), but is present here throughout the year. It is restricted by the availability of suitable earth banks or burrows for nesting. The population is unlikely to exceed 1000 birds. Breeding in southern Africa has been reported from September to April (ASAB2: 79–81).



## **536 Black Sawwing Swallow** *Psalidoprocne holomelas* Andorinha-preta

An uncommon breeding resident of coastal and riverine woodlands where earth banks are available for nesting. It is usually encountered in flocks of up to 20 birds. The winter peak in reporting rates suggests an influx from the south, where a northward migration has previously been detected (ASAB2: 82– 83). It is absent in winter from the part of its range to the northwest and west of this study area, and the winter destination of those birds is unknown (ASAB2: 82–83). It has not been reported from the low-lying parts of the former Transvaal and Swaziland (ASAB2: 82–83), through which it would pass if migrating to southern Mozambique from that direction. The population in this study area probably does not exceed 1000 birds. Breeding in southern Africa has been recorded mainly from August to March (ASAB2: 82–83).



## 538 Black Cuckooshrike

*Campephaga flava* Lagarteiro-preto

An uncommon breeding resident and partial migrant in woodlands where it is encountered in pairs. Gaps in the distribution in the south correspond with the floodplains of the Inkomati and Limpopo Rivers. In the northern parts of its southern African range, part of the population leaves the region for the winter (ASAB2: 90–91) and a decline in reporting rates in winter indicates that this may also occur in this region. It appears to be sedentary in the southernmost part of its range, in Swaziland and KwaZulu-Natal (ASAB2: 90–91). A density of 1 pair/30 ha was measured in broadleaved woodlands in the Northern Province, South Africa (ASAB2: 90–91). The population probably exceeds 10 000 birds. Breeding in southern Africa has been reported from October to April with an egglaying peak in October to December (ASAB2: 90–91).



#### 539 Whitebreasted Cuckooshrike

## Coracina pectoralis

Largarteiro-cinzento-e-branco

An uncommon breeding resident which is usually encountered singly. It occurs most often in *Brachystegia* woodland and less frequently in mixed and Mopane woodlands. Prior to this survey it had been reported as a vagrant as far south as Umbeluzi (2632AA) and Maputo (2532DC) (Clancey 1996). The pattern of higher reporting rates in winter is repeated in Zimbabwe (ASAB2: 86–87) and may be related to increased conspicuousness in winter, when it frequently joins mixed-species bird parties. It is not known to undertake regular seasonal movements, but it is possibly at least a partial migrant. A density of 1 pair/20 ha was estimated in Zimbabwe (Ginn *et al.* 1989). The population probably exceeds 1000 birds. Egglaying in Zimbabwe has been reported from August to December with a September to October peak (Irwin 1981).



#### 540 Grey Cuckooshrike

*Coracina caesia* Lagarteiro-cinzento

Single birds were seen in forest on Inhaca Island (2632BB) in August 1995 (De Boer & Bento 1999). It is inconspicuous and may have been overlooked at other localities. It may be a breeding resident or possibly a winter visitor to the region. Prior to this survey, a bird was collected at Panda (2434BA) in May 1966 (Clancey 1996), and an observation at Namaacha (2532CC) in August 1980 was reported by Herdam (1994).



## 541 Forktailed Drongo

#### *Dicrurus adsimilis* Drongo-de-cauda-forcada

A very common breeding resident of woodlands which is encountered in pairs. It is replaced by the Squaretailed Drongo in dense woodland and forest. The population probably exceeds one million birds. Densities of 1 pair/30 ha in broadleaved and 1 pair/11 ha in *Acacia* woodland have been estimated in the Northern Province, South Africa (Tarboton *et al.* 1987). Seasonal fluctuations in reporting rates are probably due to changes in conspicuousness related to the breeding cycle. Breeding in southern Africa has been reported throughout the year with an egglaying peak September to November (ASAB2: 94–95). Breeding was observed in November in this region. It is the only confirmed host of the African Cuckoo (Rowan 1983).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	18	13	25	16

#### 542 Squaretailed Drongo

Dicrurus ludwigii Drongo-de-cauda-quadrada

A common breeding resident of dense woodland and forest where it is encountered in pairs. The population probably exceeds 5000 birds. Breeding in southern Africa has been reported from September to April (ASAB2: 93).



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#### 543 European Golden Oriole

#### Oriolus oriolus

#### Papa-figos-europeu

An uncommon nonbreeding Palearctic summer migrant to woodlands, where it is encountered singly or in pairs. Previous observers who thought it 'extremely rare' (Clancey 1996) had probably undertaken little field exploration in midsummer (see Clancey 1996, pp. 7–8). The population probably exceeds 5000 birds.



#### 545 Blackheaded Oriole

Oriolus larvatus Papa-figos-de-cabeça-preta

A common breeding resident of woodlands which is encountered singly or in pairs. A gap in the distribution in the south corresponds with the floodplains of the Inkomati and Limpopo Rivers. It is markedly less common in *Acacia* compared to other woodland types. A density of 1 pair/50 ha in broadleaved woodland was estimated at a locality in the Northern Province, South Africa (Tarboton *et al.* 1987). The population probably exceeds one million birds. As in the neighbouring regions, reporting rates are lowest in summer, possibly as a result of decreased conspicuousness while breeding (ASAB2: 100–101). Breeding in southern Africa has been reported throughout the year with a peak from November to January (ASAB2: 100–101).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	6	22	19	13



## 548 Pied Crow

*Corvus albus* Seminarista

A common breeding resident which may be encountered singly or in flocks of up to 100 birds. Although it was observed in all habitat types, it is commensal with humans and its distribution coincides with dense human settlement, which explains its concentration along the coast and the Limpopo River. The population probably exceeds 10 000 birds. As in the rest of southern Africa, it has expanded its range as a result of human activities (ASAB2: 104–105). Breeding in the neighbouring regions was reported mostly from August to January (ASAB2: 104–105).



### **549 House Crow** *Corvus splendens* Corvo-indiano

A breeding resident on Inhaca Island (2632BB) where it is encountered in flocks of up to 50 birds. It is an alien species whose introduction to southern Africa from south Asia was probably ship assisted (ASAB2: 108). The date of its introduction to Inhaca Island has not been recorded but may have been in the early 1960s (De Boer & Bento 1999). It breeds and roosts in the most densely populated part of the island. It forages more widely, but most often in cultivated fields and around homesteads. It is known to raid nests of other bird species and sporadic unsuccessful attempts have been made to eradicate it from the island because it was believed to be a threat to the indigenous birdlife (De Boer & Bento 1999). It regularly forages on the nearby Machangulo Peninsula but has not been observed anywhere else on the mainland. The population is estimated at 200 to 300 birds (De Boer & Bento 1999). Reports of its occurrence in Maputo are unfounded (contra Ginn et al. 1989). Breeding in South Africa has been reported mainly from October to November (ASAB2: 108).



#### 550 Whitenecked Raven

#### Corvus albicollis

Corvo-de-nuca-branca

An uncommon breeding resident in the Libombo Mountain range where it is encountered in pairs or flocks of up to 20 birds. The population probably consists of fewer than 100 birds. Breeding in southern Africa has been reported mostly from August to December (ASAB2: 106-107).



#### **554 Southern Black Tit**

Parus niger Chapim-preto-meridional

A common breeding resident of woodlands, where it is usually encountered in family groups of 2 to 10 birds. It is more numerous in moist than arid woodlands but avoids forest and is largely absent along the coast. The density at one locality in broadleaved woodland in the Northern Province, South Africa, was estimated at 1 bird/9 ha (Tarboton et al. 1987). The population probably exceeds 500 000 birds. In southern Africa, breeding occurs in summer, mainly from September

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	6	<5	25	13



## 558 Grey Penduline Tit

#### Anthoscopus caroli Pássaro-do-algodão-cinzento

A common breeding resident of woodlands which is usually encountered in groups of up to 10 birds. Reporting rates are slightly lower in summer, probably as a result of reduced conspicuousness when breeding. No seasonal movements are suspected. The population probably exceeds 20 000 birds. Breeding in southern Africa has been reported from August to February (ASAB2: 122–123). In this region breeding was observed in October and March. Two races have been identified in the region, their ranges separated by the Limpopo River. The race *A. c. caroli* occurs to the south and race *A. c. robertsi* to the north (Clancey 1996).



#### 560 Arrowmarked Babbler

*Turdoides jardineii* Zaragateiro-castanho

A common breeding resident of woodlands with dense undergrowth which is encountered in family groups of up to 10 birds. It avoids *Brachystegia* and *Julbernadia* woodland. Seasonal fluctuations in reporting rates are probably due to changes in conspicuousness related to the breeding cycle. The population probably exceeds 20 000 birds. Breeding in southern Africa has been reported throughout the year with a peak from October to November (ASAB2: 124–125).



#### 568 Blackeyed Bulbul

Pycnonotus barbatus

#### Tutinegra

A very common breeding resident of all wooded habitats except forest interiors. It is usually encountered in pairs. Its population is estimated to be between 5 and 10 million birds. Breeding in the neighbouring regions has been reported throughout the summer with an egglaying peak from October to December (ASAB2: 138–139). Breeding was observed here in December.

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	41	30	39	39



#### 569 Terrestrial Bulbul

*Phyllastrephus terrestris* Tuta-da-terra

A common breeding resident of woodlands with dense undergrowth and forest. It is usually encountered in groups of fewer than 10 birds. The population probably exceeds 100 000 birds. Egglaying in neighbouring KwaZulu-Natal, South Africa, has been reported from October to January (Maclean 1993).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	17	<5	<5	9



## **571 Slender Bulbul** *Phyllastrephus debilis* Tuta-esbelta

A pair was observed in forest remnant near Massinga (2335AD) in December 1995. It is easily overlooked when not calling and it is possibly an uncommon breeding resident. It has previously been collected at Inhambane (2335CD) (Clancey 1996). It has declined as a result of the destruction of coastal forests and is threatened in this region. It is believed to be more numerous north of the Save River (Clancey 1996).



## 572 Sombre Bulbul

Andropadus importunus Tuta-sombria

A very common breeding resident of moist woodlands and forest, where it is usually encountered in pairs. The population probably exceeds 100 000 birds. Egglaying in southern Africa has been reported throughout the summer, with a peak October to December (ASAB2: 144–145). Breeding was observed here in September.

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	21	<5	<5	8



#### 574 Yellowbellied Bulbul

Chlorocichla flaviventris

#### Tuta-amarela

A common breeding resident of moist woodlands and forest where it is encountered singly or in pairs. A gap in the distribution in the south coincides with the Inkomati and Limpopo River floodplains. The population probably exceeds 40 000 birds. Egglaying in southern Africa has been reported from September to March with an October to December peak (Maclean 1993). Two races have been identified in the region, with *C. f. flaviventris* along the coast and *C. f. ortiva* inland (Clancey 1996).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	<5	<5	<5	6



#### 575 Yellowspotted Nicator

*Nicator gularis* Tuta-de-garganta-branca

A common breeding resident of moist woodlands with dense undergrowth which is encountered singly or in pairs. Low reporting rates in winter reflect the fact that it is secretive and inconspicuous when not calling. The population probably exceeds 10 000 birds. Breeding in southern Africa has been reported from November to January (ASAB2: 148–149).



## **576 Kurrichane Thrush** *Turdus libonyana* Tordo-chicharrio

A common breeding resident of woodlands where it is encountered singly or in pairs. The population probably exceeds 20 000 birds. Breeding in neighbouring regions has been reported throughout the year, with an egglaying peak October to November (ASAB2: 152–153), and was observed here in November. It has expanded its range southwards in South Africa as a result of adaptation to man-made habitats (ASAB2: 152–153) but its range in this region is probably unaltered. Two races have been identified in the region, *T. L. peripheris* in the south and *T. l. tropicalis* to the north (Clancey 1996). The Inkomati River floodplain is likely to be the boundary between the races.



#### 580 Groundscraper Thrush

*Turdus litsitsirupa* Tordo-de-peito-malhado

An uncommon breeding resident of arid savannas; it is encountered in pairs. Elsewhere in southern Africa it is most common in Miombo woodlands (ASAB2: 156–157), but is absent from that habitat in this region. The population probably exceeds 1000 birds. Seasonal movements from the dry west of southern Africa towards this region in the winter are suspected (ASAB2: 156–157), but there were too few records during this survey to reveal any seasonal patterns. Breeding in the neighbouring regions has been reported throughout the summer with a peak from October to November (ASAB2: 156–157).



#### 585 European Wheatear

*Oenanthe oenanthe* 

Chasco-cinzento

A rare nonbreeding Palearctic summer migrant. Two birds were seen, one of which was a male in breeding plumage, about 10 km apart in disturbed ground near Massingir (2332CC) in December 1994. The sightings have been ratified by the Rarities Committee of BirdLife South Africa (Hockey *et al.* 1996). It has not previously been recorded in the region (Clancey 1996).



#### 587 Capped Wheatear

*Oenanthe pileata* Chasco-de-barrete

A single bird was observed on Inhaca Island (2632BB) in November 1994 (De Boer & Bento 1999). It has previously been reported from Bilene (2533AD) in December (Herdam 1994). It occurs mainly in west and central southern Africa and occasionally disperses this far east (ASAB2: 170–171).



## 589 Familiar Chat

*Cercomela familiaris* Chasco-familiar

An uncommon breeding resident of savanna on rocky ground in the Libombo Mountain range and reported as a vagrant on Inhaca Island (De Boer & Bento 1999). It occurs singly or in pairs. The population may number fewer than 100 birds. Breeding occurs in summer and egglaying in the neighbouring regions peaks from October to November (ASAB2: 176– 177).



## 593 Mocking Chat

*Thamnolaea cinnamomeiventris* Chasco-poliglota

An uncommon breeding resident of woodlands near rockfaces (which provide nesting sites) in the Libombo Mountain range. It occurs in pairs. The population may number fewer than 100 birds. Breeding in southern Africa has been reported in summer with an egglaying peak September to November (ASAB2: 184–185).



### 594 Arnot's Chat

*Thamnolaea arnoti* Chasco de Arnott

An uncommon breeding resident. It was encountered most often in tall Mopane woodlands and occasionally in *Julbernadia* and *Brachystegia* woodlands. A density of 1 bird/1.2 ha was estimated in tall Mopane in Botswana (ASAB2: 186–187). It occurs in pairs. The population probably does not exceed 500 birds. Most Mopane woodlands in this region are not tall and dense enough to be suitable for the species. Breeding in southern Africa has been reported from September to April (ASAB2: 186–187).



### **596 Stonechat** *Saxicola torquata* Cartaxo-comum

A common nonbreeding winter migrant. It is an altitudinal migrant, with birds moving from the Drakensberg mountains in South Africa to the lowlands of Mozambique, Swaziland and KwaZulu-Natal to escape harsh winter conditions (ASAB2: 190–191). It is found singly or in pairs in marshes, grassland, savanna and cultivated lands in the southern part of the region. The population visiting this region may exceed 10 000 birds.



## **599 Heuglin's Robin** *Cossypha heuglini* Pisco de Heuglin

An uncommon breeding resident in riverine woodlands in the Libombo Mountains and along the Limpopo and Save Rivers. It occurs in pairs. Densities of up to 3 birds/ha have been estimated in prime habitat in southern Africa (Farkas 1973). The population is unlikely to exceed 5000 birds. It is less common here than in neighbouring Swaziland (ASAB2: 196–197) owing to the relative scarcity of well-wooded watercourses. Breeding in the neighbouring regions has been reported from September to April (ASAB2: 196–197).



## **600 Natal Robin** *Cossypha natalensis* Pisco do Natal

This species has a resident breeding population in coastal and riverine woodland and forest, which is augmented during the winter by migrants from South Africa (ASAB2: 198–199). The presence of the migrants is reflected by increased reporting rates in winter. It is encountered singly or in pairs. The combined population (residents and migrants) probably exceeds 5000 birds. Egglaying in southern Africa has been reported from early summer, with a November peak (ASAB2: 198–199). The resident birds and part of the migratory population have been ascribed to the nominate race, while some have been ascribed to *C. n. egregior* which breeds along the Transkei coast, South Africa (Clancey 1996).



#### 601 Cape Robin

*Cossypha caffra* Pisco do Cabo

A rare nonbreeding winter migrant to coastal woodlands south of the Inkomati River from higher altitudes in South Africa and Swaziland (ASAB2: 200–201). It was encountered singly at Catembe (2632BA) and Bela Vista (2632BC) in June 1995. The number visiting the region probably does not exceed 300.



#### 602 Whitethroated Robin

*Cossypha humeralis* Pisco-de-peito-branco

A common breeding resident in moist woodlands, where it occurs in pairs. The population probably exceeds 2000 birds. Egglaying in southern Africa has been reported from September to January with an October to November peak (ASAB2: 202–203). Comparison of the range of the Redchested Cuckoo with those of its likely hosts (Rowan 1983) indicates that the Whitethroated Robin is probably the most frequent host of the cuckoo in this region.



## 603 Collared Palm Thrush

*Cichladusa arquata* Tordo-das-palmeiras-de-colar

A breeding resident which was seen at Morrungulo (2335AB,AD) and at Ponta da Barra (2335CD) among alien coconut palms. It may have been overlooked at other localities but probably numbers fewer than 100 birds in the region. Breeding has been recorded from October to February in Zimbabwe (Irwin 1981). It is more common north of the Save River than in this region (Clancey 1996).



## **606 Starred Robin** *Pogonocichla stellata* Pisco-estrelado

An uncommon nonbreeding winter migrant from higher altitudes in South Africa and Swaziland (ASAB2: 206–207). It was encountered singly in coastal forest near Bilene (2533AA) in August 1995 and on Inhaca Island (2632BB) in May 1996.



### 613 Whitebrowed Robin

#### *Erythropygia leucophrys* Rouxinol-do-mato-estriado

A very common breeding resident in open woodland and savanna. It is most common in *Acacia* woodland and savanna and least common in the wettest parts of the region. It occurs in pairs. The population probably exceeds two million birds. In southern Africa breeding has been reported from September to March with a peak October to November (ASAB2: 214–215). The Whitebrowed Robin is an occasional host of Klaas's Cuckoo (Skinner 1993).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	29	17	16	24



### **616 Brown Robin** *Erythropygia signata*

Rouxinol-do-mato-castanho

An uncommon breeding resident in coastal forests with dense undergrowth and also in Ironwood *Androstachys johnsonii* forests in the interior. It occurs in pairs. It is inconspicuous and was probably overlooked at some localities. The population probably exceeds 1000 birds. It has declined as a result of the destruction of coastal forests. Breeding in southern Africa has been reported from October to February with an egglaying peak in November (ASAB2: 220–221).



## 617 Bearded Robin

#### *Erythropygia quadrivirgata* Rouxinol-do-mato-de-bigodes

An uncommon breeding resident of moist woodlands. It occurs in pairs. It is very secretive when not calling and was probably overlooked at some localities. The population probably exceeds 5000 birds. Breeding in southern Africa has been reported from September to December (ASAB2: 222–223). Coastal birds have been ascribed to the race *E. q. wilsoni* and those inland to *E. q. rovumae* (Clancey 1996). It is one of the hosts of the Redchested Cuckoo (Rowan 1983).



#### 619 Garden Warbler

Sylvia borin Felosa-das-figueiras

An uncommon nonbreeding Palearctic summer migrant to woodlands. It was encountered singly. It is nondescript and inconspicuous and mostly silent on its nonbreeding grounds and was therefore probably overlooked at some localities. It had previously been reported at Bilene (2532AD) (Herdam 1994). A density of 1 bird/3 ha was estimated in lush woodlands in Botswana but it generally occurs at lower densities over southern Africa (ASAB2: 225). The population in this region may exceed 1000 birds.



#### 624 Mashona Hyliota

## Hyliota australis

#### Papa-moscas-austral

An uncommon breeding resident of *Brachystegia* woodlands where it is encountered singly or in pairs. Its distribution in the region closely mirrors the distribution of *Brachystegia spiciformis* woodlands. The population probably exceeds 2000 birds and is isolated from the populations in Zimbabwe and central Mozambique. It is an altitudinal migrant in eastern Zimbabwe (ASAB2: 231), but no seasonal movements are suspected in this region. Egglaying in Zimbabwe has been reported from August to January with a peak in September (Irwin 1981). It is declining as result of the destruction of its habitat for slash-and-burn agriculture.



## **625 Icterine Warbler** *Hippolais icterina* Felosa-icterina

An uncommon nonbreeding Palearctic summer migrant to woodlands where it was observed singly in December and January. It is inconspicuous and not easily identified and was probably overlooked at some localities. Nevertheless, the scarcity of records suggests that its main nonbreeding grounds in southern Africa lie farther to the west. Prior to this survey it was reported from Chokwe (3324DA) (Herdam 1994). A peak density of 1 bird/ha was estimated in mixed bushveld in Botswana (ASAB2: 242–243). The number visiting this region may be fewer than 500 birds.



## **626 Olivetree Warbler** *Hippolais olivetorum* Felosa-das-oliveiras

An uncommon nonbreeding Palearctic summer migrant to *Acacia* woodlands where it was encountered singly. It breeds in the eastern Mediterranean region and almost the entire population migrates to southern Africa (Curry-Lindahl 1981). It is inconspicuous and difficult to identify when not calling and was probably overlooked at some localities. It has only once previously been recorded from the region, in Maputo (2532DC) in February 1981 (Herdam 1994). The population visiting this region probably exceeds 5000 birds, which is about 10% of the global population (ASAB2: 241).



#### 628 Great Reed Warbler

Acrocephalus arundinaceus Rouxinol-grande-dos-caniços

An uncommon nonbreeding Palearctic summer migrant which was encountered singly in reedbeds, scrubby undergrowth around the edges of wetlands and cultivated lands. The number visiting this region probably exceeds 5000 birds.



#### 631 African Marsh Warbler

#### Acrocephalus baeticatus Rouxinol-dos-canicos-africano

An uncommon breeding intra-African summer migrant in reedbeds where it occurs in pairs. Clancey (1996) considered it to occur only as a winter or passage migrant here, and ascribed the breeding population to the Cinnamon Reed Warbler *A. cinnamomeus*. All birds encountered during this survey were identified by calls which are indistinguishable from those of *A. baeticatus* recorded by Gibbon (1991) in the southern Cape Province, South Africa. It is resident in neighbouring Swaziland (Parker 1994a), and wintering birds may have been overlooked here. The population probably exceeds 10 000 birds. Egglaying in the former Transvaal, South Africa, has been recorded from October to February (Tarboton *et al.* 1987).



## 633 European Marsh Warbler

Acrocephalus palustris Felosa-palustre

A common nonbreeding Palearctic summer migrant to thickets within woodlands where it was encountered singly. The entire population winters in the southern third of Africa, mostly to the north of this region (ASAB2: 236). It stops off in north Africa for two to four months before continuing to reach this region by December (ASAB2: 236). Site fidelity in its nonbreeding grounds has been recorded (ASAB2: 236). It was reported more frequently than most other Palearctic migratory warblers partly because it is more vocal while in its nonbreeding grounds (*contra* Clancey 1996). Densities of from 3 to 7 birds/10 ha were estimated in lush vegetation in northern Botswana (ASAB2: 236). The number visiting this region probably exceeds 10 000 birds.



## 634 European Sedge Warbler

Acrocephalus schoenobaenus Felosa-dos-juncos

An uncommon nonbreeding Palearctic summer migrant to reedbeds and the undergrowth surrounding wetlands where it was encountered singly in January and April. It was probably overlooked at some localities because it is inconspicuous and mostly silent in its nonbreeding quarters. The number visiting this region is unlikely to exceed 1000 birds.



## 635 Cape Reed Warbler

Acrocephalus gracilirostris Rouxinol-pequeno-dos-pântanos

A common breeding resident in reedbeds where it occurs in pairs. The population probably exceeds 10 000 birds. Egglaying in the neighbouring regions has been reported mainly from October to January (Tarboton *et al.* 1987).



## 637 Yellow Warbler

Chloropeta natalensis

Felosa-amarela

An uncommon nonbreeding winter migrant from higher altitudes in neighbouring South Africa (ASAB2: 244–245). It was encountered singly in the undergrowth surrounding wetlands. The greatest concentration occurs in marshland near the mouth of the Limpopo River (2533BA). The population probably exceeds 1000 birds.



#### 638 African Sedge Warbler

Bradypterus baboecala Felosa-dos-juncos-africana

A common breeding resident of reedbeds where it occurs in pairs. The population probably exceeds 10 000 birds. Breeding in the neighbouring regions has been reported from November to February (ASAB2: 246–247).



## **643 Willow Warbler** *Phylloscopus trochilus*

Felosa-musical

A common nonbreeding Palearctic summer migrant to woodlands where it was encountered singly. In spite of fairly catholic habitat requirements throughout southern Africa, it is absent from the coast north of the Limpopo River. The number visiting this region probably exceeds 50 000 birds. Density estimates in southern Africa range from 23 to 200 birds/100 ha (ASAB2: 254–255). Site fidelity in its nonbreeding range has been reported (Tarboton *et al.* 1987).



#### 647 Blackheaded Apalis

*Apalis melanocephala* Apalis-de-cabeça-preta

A rare breeding resident of dense woodlands which was only observed on Bazaruto Island (2135CB) where it occurs in pairs. It is inconspicuous and may have been overlooked at some localities. Prior to this survey it was recorded on the mainland at Massinga (2335AD) (Clancey 1996). It has been adversely affected by the destruction of indigenous vegetation along the coast and is threatened in this region. It is more common north of the Save River (Clancey 1996). Breeding in southern Africa has been reported from November to February (ASAB2: 261).


# 648 Yellowbreasted Apalis

#### *Apalis flavida* Apalis-de-peito-amarelo

A common breeding resident of woodlands where it occurs in pairs. There is no evidence for any seasonal movements. There is some indication of a gap in the distribution along the Limpopo River. The population probably exceeds one million birds. Breeding in southern Africa has been reported throughout the summer (ASAB2: 262–263). Two races have been identified in the region, *A. f. renata* along the coast and *A. f. neglecta* inland (Clancey 1996).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	10	<5	19	13



#### **649 Rudd's Apalis** *Apalis ruddi* Apalis de Rudd

A common breeding resident of thickets in *Acacia* and mixed woodlands where it occurs in pairs. It is a near endemic to Sul do Save, its range extending only a short distance into northern KwaZulu-Natal, eastern Swaziland and southern Malawi (ASAB2: 264). 70–80% of its range lies within this region. The small population near the Save River in the north appears to be isolated. Records in the extreme west indicate either vagrants or another isolated population. There is no evidence for seasonal movements. A density of 9 pairs/10 ha of suitable habitat was estimated at one locality in KwaZulu-Natal (Bevan 1944). The population probably exceeds 10 000 birds. Breeding in South Africa has been reported from September to January (Dean 1971). Two races have been identified in the region, *A. r. fumosa* south of the Inkomati River floodplain and *A. r. ruddi* to the north (Clancey 1996).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	5	<5	<5	<5



#### 650 Redfaced Crombec

#### Sylvietta whytii Rabicurta-de-faces-vermelhas

An uncommon breeding resident which was encountered singly and in pairs. It is most common in *Brachystegia* wood-lands and also occurs sparsely in mixed woodlands and savanna. It occurs alongside the Longbilled Crombec throughout its range. It outnumbers that species in tall *Brachystegia* woodland, but is outnumbered by it in other habitats. It avoids interaction with the Longbilled Crombec by keeping mostly to the canopy while the latter prefers to forage in the undergrowth. Egglaying in Zimbabwe has been reported in early summer with a September to November peak (Irwin 1981). The population probably exceeds 1000 birds. As in Zimbabwe, it has declined as a result of the destruction of woodlands for agriculture (ASAB2: 265).



#### 651 Longbilled Crombec

Sylvietta rufescens Rabicurta-de-bico-comprido

A common breeding resident of woodland and savanna where it occurs singly or in pairs. It is most numerous in the arid parts of the region. It is outnumbered by the Redfaced Crombec in tall *Brachystegia* woodland, but outnumbers that species in other habitats where they overlap (*contra* Clancey 1996). Interaction with the Redfaced Crombec is minimised by the latter keeping mostly to the canopy while the Longbilled Crombec prefers to forage in the undergrowth. Density estimates in southern Africa range from 1 bird/23 ha to 1 bird/1.8 ha (ASAB2: 266–267). The population probably exceeds two million birds. Breeding in the neighbouring regions has been reported throughout the summer with an October to January egglaying peak (ASAB2: 266–267). It is one of the hosts of Klaas's Cuckoo (Rowan 1983).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	29	15	16	26



#### 653 Yellowbellied Eremomela

*Eremomela icteropygialis* Eremomela-de-barriga-amarela

An uncommon breeding resident of open woodlands and savanna where it occurs in pairs. The population probably exceeds 5000 birds. There is no evidence for any seasonal movements. Egglaying in the neighbouring regions has been reported from September to January (Tarboton *et al.* 1987).



#### 655 Greencapped Eremomela

*Eremomela scotops* Eremomela-de-barrete-verde

A flock of about six birds was seen in riverine woodland near Massangena (2132AD) in June 1997 and another at Inhaca Island (2632BB) in January 1994. It is probably a breeding resident which was overlooked at some localities. Prior to this survey it was collected at Rumbacaca (2135CD) (Clancey 1996). It was listed for the Maputo Elephant Reserve (2632BD) by Tello (1973) without supporting details. Egglaying in Zimbabwe has been reported from August to February with a September to November peak (Irwin 1981).



#### 656 Burntnecked Eremomela

#### *Eremomela usticollis* Eremomela-de-garganta-castanha

An uncommon breeding resident of *Acacia* woodlands where it occurs in pairs. It is inconspicuous and was probably overlooked at some localities. A density of 1 breeding pair/17 ha was estimated in suitable habitat at one locality in the Northern Province, South Africa (ASAB2: 274–275). The population probably exceeds 1000 birds. Breeding in the Northern Province, South Africa, has been reported from October to April (ASAB2: 274–275).



#### **657 Bleating Warbler** *Camaroptera brachyura*

Felosa-de-dorso-verde

A very common breeding resident of woodlands with dense undergrowth and forests where it occurs in pairs. Its absence from the central part of the region corresponds with a scarcity of water-courses. The population probably exceeds 100 000 birds. Movements from higher altitudes into this region in winter have been postulated (ASAB2: 276–277), but reporting rates show a decrease in winter (which may be related to changes in conspicuousness). Breeding in the neighbouring regions has been reported from September to April (ASAB2: 276–277).



#### **659 Stierling's Barred Warbler** *Calamonastes stierlingi* Felosa de Stierling

A common breeding resident of woodlands where it occurs in pairs. Although most common in broadleaved woodland, it is occasionally also encountered in *Acacia* woodlands. It avoids the wetter parts of the region. Densities in suitable habitat at a few localities in Botswana were estimated at from 1 pair/6 ha to 1 pair/2.5 ha (ASAB2: 280–281). The population probably exceeds 50 000 birds. There is no evidence for seasonal movements. Egglaying in the neighbouring regions has been reported from November to February (Tarboton *et al.* 1987).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	<5	<5	<5	7



#### 664 Fantailed Cisticola

*Cisticola juncidis* Fuinha-dos-juncos

A common breeding resident of grassland, savanna, clearings in woodland, cultivated lands and marshes where it occurs in pairs. It is seldom reported in winter because it is inconspicuous when not calling and it is believed to be sedentary. The population probably exceeds 200 000 birds. Breeding in southern Africa has been reported mainly from November to April (ASAB2: 288–289). During 1996, birds were observed performing aerial displays through to the end of July, indicating an extended breeding season following exceptionally heavy summer rains. It has expanded its range in southern Africa by adapting to man-made environments (ASAB2: 288– 289) and is likely to expand farther in this region with increasing agricultural activity.



#### **665 Desert Cisticola** *Cisticola aridula* Fuinha-do-deserto

An uncommon breeding resident of dry grassland where it was observed singly. It is seldom reported during winter because it is inconspicuous when not calling and it is not clear whether any seasonal movements take place. The population probably exceeds 1000 birds. Egglaying in southern Africa has been reported mainly from September to April (ASAB2: 290–291).



# 666 Cloud Cisticola

*Cisticola textrix* Fuinha-das-nuvens

An uncommon breeding resident of moist grassland in the far south of the region where it was observed singly. It is seldom reported in winter because it is inconspicuous when not calling, and it is believed to be sedentary. The population probably does not exceed 500 birds. Egglaying in the neighbouring regions has been reported from September to March (ASAB2: 292–293).



#### 668 Palecrowned Cisticola

#### *Cisticola brunnescens* Fuinha-de-coroa-pálida

Probably a breeding resident which was reported in flooded grasslands near Zitundo (2632DB) in November 1997 and in marshland at Xinovane (2532BB) in October 1998 (F. Peacock). Prior to this survey it was reported from Manhica (2532BD) and Chicumbane (2533BA) (Clancey 1996). It is likely to have been overlooked in some localities because it is inconspicuous when not calling. Egglaying in southern Africa has been reported from November to May with a December to January peak (ASAB2: 304).



#### 672 Rattling Cisticola

*Cisticola chiniana* Fuinha-chocalheira

A very common breeding resident of all wooded habitats except forest and dense woodlands. It is most common in *Acacia* woodland. A gap in the distribution north of Panda (2334C,D) corresponds with *Brachystegia* woodlands. It occurs in pairs. The population probably exceeds two million birds. A density of 1 pair/4 ha was estimated at one locality in the Northern Province, South Africa (Tarboton *et al.* 1987). Breeding in southern Africa has been reported throughout the summer (ASAB2: 302–303) and was observed here in January. Two races have been identified in the region: *C. c. vulpiniceps* occurs only in the north, and *C. c. campestris* farther south, but the limits of their ranges are not clear (Clancey 1996).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	50	<5	9	10



#### 674 Redfaced Cisticola

#### *Cisticola erythrops* Fuinha-de-faces-vermelhas

A common breeding resident of rank grass around wetlands and cultivated lands where it occurs in pairs. It is concentrated south of the Limpopo River, with isolated populations north of Maxixe (2335CB) and along the Save River. The population probably exceeds 20 000 birds. Breeding in southern Africa has been reported from October to April with a December to February peak (ASAB2: 306–307).



#### 675 Blackbacked Cisticola

*Cisticola galactotes* Fuinha-de-dorso-preto

A common breeding resident of reedbeds and rank grass around wetlands where it occurs in pairs. Its distribution is concentrated along the coast and in the Limpopo River floodplain. It is believed to be sedentary throughout its southern African range (ASAB2: 308–309). The population probably exceeds 20 000 birds. Breeding has been reported from October to February in neighbouring KwaZulu-Natal, South Africa (Dean 1971).



#### 678 Croaking Cisticola

*Cisticola natalensis* Fuinha do Natal

An uncommon breeding resident of marshlands and moist grasslands where it occurs in pairs. It is believed to be sedentary throughout its southern African range (ASAB2: 312– 313). The population probably exceeds 20 000 birds. Egglaying has been reported from October to February, mainly November to December, in neighbouring KwaZulu-Natal, South Africa (Dean 1971).



**679 Lazy Cisticola** *Cisticola aberrans* Fuinha-preguiçosa

An uncommon breeding resident of woodland and scrub on stony ground in the Libombo Mountain range. It occurs in pairs. The population probably exceeds 1000 birds. It is believed to be sedentary throughout its southern African range (ASAB2: 314–315). Egglaying in the neighbouring regions has been reported from October to March (ASAB2: 314–315).



#### 680 Shortwinged Cisticola

Cisticola brachyptera

Fuinha-de-asa-curta

A calling bird was observed near Zavora (2435AC) in January 1995 and another near Vilanculos (2235AA) in March 1997. It is probably an uncommon breeding resident of coastal broadleaved savanna which occurs in pairs. It is inconspicuous and was probably overlooked at some localities. It is more common north of the Save River (Clancey 1996). Egglaying in Zimbabwe has been reported from November to March (Irwin 1981).



#### **681 Neddicky** *Cisticola fulvicapilla* Fuinha-de-cabeça-ruiva

A common breeding resident of woodlands and savanna where it occurs in pairs. Although more common in broadleaved woodlands, it was also encountered in *Acacia* woodlands. On the other hand, at Nylsvlei in the Northern Province, South Africa, it was found to be more common in *Acacia* than broadleaved woodland, with estimated densities of 1 pair/5 ha in *Acacia* and 1 pair/10 ha in broadleaved woodland (Tarboton *et al.* 1987). A gap in the distribution separating northern and southern populations corresponds with the floodplains of the Inkomati and Limpopo Rivers. The population probably exceeds 100 000 birds. Breeding in the neighbouring regions has been reported from October to March with a November to January peak (ASAB2: 318–319). The race *C. f. lebombo* supposedly occurs only in the Libombo Mountain range and is replaced by *C. f. muelleri* elsewhere (Clancey 1996).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	<5	<5	12	8



#### 683 Tawnyflanked Prinia

# Prinia subflava

Prínia-de-flancos-castanhos

A common breeding resident of reedbeds, rank grass and undergrowth in all habitats except forest. No seasonal movements are suspected in its southern African range (ASAB2: 322–323). The population probably exceeds 500 000 birds. A density of 1 pair/15 ha was estimated in broadleaved woodland at one locality in the Northern Province, South Africa, and its density is believed to be higher elsewhere (ASAB2: 322–323). Egglaying in the neighbouring regions has been reported from August to April with a November to January peak (ASAB2: 322–323).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	7	<5	<5	4



#### **689** Spotted Flycatcher

*Muscicapa striata* Papa-moscas-cinzento

A common nonbreeding Palearctic summer migrant to woodlands where it is encountered singly or in pairs. It avoids the coast north of the Limpopo River. Site fidelity on the nonbreeding grounds has been reported in the eastern parts of southern Africa (ASAB2: 332–333). In northeastern Botswana, density estimates yielded an average of 1 bird/2.5 ha in suitable habitat with a peak density of 1 bird/ha (ASAB2: 332–333). The number visiting this region probably exceeds 100 000 birds.



#### 690 Dusky Flycatcher

#### Muscicapa adusta

Papa-moscas-sombrio

An uncommon nonbreeding winter migrant to coastal and riverine woodland and forest from higher altitudes in South Africa and Swaziland (ASAB2: 334–335). It was encountered singly. The population probably exceeds 1000 birds.



# 691 Bluegrey Flycatcher

*Muscicapa caerulescens* Papa-moscas-azulado

An uncommon breeding resident and partial migrant in dense woodlands and forest where it occurs in pairs. A wide gap which includes the floodplains of the Inkomati and Limpopo Rivers, separates the northern and southern populations. The population probably exceeds 5000 birds. There is some evidence for seasonal movements over short distances within southern Africa, the details of which are unclear (ASAB2: 338-339). Higher reporting rates in winter may reflect seasonal changes in conspicuousness and do not necessarily support the suggestion that the resident population is augmented by winter visitors from South Africa (Clancey 1996). Breeding in the neighbouring regions has been reported in summer with an October to December peak (ASAB2: 338-339). It is one of the hosts of Klaas's Cuckoo (Tarboton et al. 1987). Clancey (1996) ascribed the resident population to the race C. c. vulturna and the migrants to the nominate race.



#### **693** Fantailed Flycatcher

# Myioparus plumbeus

Papa-moscas-rabo-de-leque

An uncommon breeding resident of woodlands where it occurs in pairs. A wide gap, which includes the floodplains of the Inkomati and Limpopo Rivers, separates the northern and southern populations. No seasonal movements are suspected. The population probably exceeds 5000 birds. Breeding in southern Africa has been reported from August to January with an October to November peak (ASAB2: 340–341). It is one of the hosts of Klaas's Cuckoo (Maclean 1993).



#### **694 Black Flycatcher** *Melaenornis pammelaina* Papa-moscas-preto-africano

A common breeding resident of woodlands where it occurs in pairs. Seasonal movements across southern Africa from the dry west eastwards in the dry season have been suggested (ASAB2: 342–343). The higher reporting rates in winter may reflect seasonal changes in conspicuousness and do not necessarily provide evidence for a winter influx. A density of 1 breeding pair/30 ha was estimated at one locality in the Northern Province, South Africa (Tarboton *et al.* 1987). The population probably exceeds 10 000 birds. Breeding in the neighbouring regions has been reported from August to January with an October to November peak (ASAB2: 342–343).



#### **695 Marico Flycatcher** *Melaenornis mariquensis*

#### Papa-moscas de Marico

There were too few records for the status of this species to be determined with certainty, but records from midwinter and midsummer suggest that it may be a breeding resident. It was observed in pairs in *Acacia* woodlands. The bulk of the population in southern Africa has a more westerly distribution (ASAB2: 344–345). It has not previously been reported in the region (Clancey 1996). The population probably does not exceed 500 birds. Breeding in South Africa has been reported from September to April with an October to December peak (ASAB2: 344–345).



#### **696 Pallid Flycatcher** *Melaenornis pallidus* Papa-moscas-pálido

A common breeding resident of broadleaved woodlands where it occurs in pairs. A density of 1 breeding pair/30 ha was estimated at one locality in the Northern Province, South Africa (Tarboton *et al.* 1987). Increased reporting rates in winter are probably due to seasonal changes in conspicuousness. The population probably exceeds 50 000 birds. Egglaying in South Africa has been reported from September to January with an October to November peak (ASAB2: 346–347). Breeding was observed here in November, January and March. Two races have been identified in the region: *M. p. sibilans* south of the Inkomati River floodplain and *M. p. divisus* to the north (Clancey 1996).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	<5	<5	12	6



#### 698 Fiscal Flycatcher

Sigelus silens

Papa-moscas-fiscal

An uncommon nonbreeding winter migrant to savanna and woodland from higher altitudes in South Africa (ASAB2: 350–351). It was observed singly. The number visiting this region probably exceeds 1000 birds.



#### **700 Cape Batis** *Batis capensis* Batis do Cabo

An uncommon breeding resident, observed in forests in the Libombo Mountain range along the border with Swaziland. It occurs in pairs. The population on this side of the border probably does not exceed 300 birds. Breeding in South Africa has been reported from September to April with a November to December peak (ASAB2: 354–355).



#### **701** Chinspot Batis Batis molitor

# Batis-comum

A common breeding resident in arid woodlands and savanna, where it occurs in pairs. It is replaced by the Mozambique Batis in moist woodlands in the northeast and no overlap was observed. It is most common in *Acacia* woodland. Densities of 1 breeding pair/5 ha in Acacia and 1 breeding pair/15 ha in broadleaved woodland were estimated at one locality in the Northern Province, South Africa (Tarboton *et al.* 1987). The population probably exceeds one million birds. No seasonal movements are suspected. Breeding in the neighbouring regions occurs in summer with a November peak (ASAB2: 356–357). Two races have been identified in the region, *B. m. molitor* in the south and *B. m. palliditergum* to the northwest (Clancey 1996).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	25	13	<5	15



#### 702 Mozambique Batis

*Batis soror* Batis de Moçambique

A common breeding resident which occurs in pairs. It was encountered mostly in *Brachystegia*, *Julbernadia* and mixed broadleaved woodlands, but also in *Acacia* and Mopane woodlands around the limits of its range, where it apparently displaces the Chinspot Batis. The two species were not found to overlap anywhere. Distinction between these species in the field was based on call recognition, because they are visually similar. The population probably exceeds 400 000 birds. Egglaying in Zimbabwe was reported from October to November (Irwin 1981). There is no evidence for any seasonal movements.

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	<5	<5	21	15



# **704 Woodwards' Batis** *Batis fratrum*

#### Batis de Woodward

An uncommon breeding resident of coastal forests where it occurs in pairs. At a few inland localities it occurs in the largest of the Ironwood *Androstachys johnsonii* forests. It is a near endemic to Mozambique, extending only marginally into KwaZulu-Natal, South Africa, and eastern Zimbabwe (ASAB2: 359). It has previously also been reported from Mapinhane (2235AC), Funhalouro (2334AB) and Vila Franca do Save (2134BB) (Clancey 1996). The population may not exceed 500 birds. It has declined as a result of the destruction of coastal forests and is threatened in this region. Its current status in northern Mozambique is unknown, but if deforestation should occur there on the same scale as in the south, the species should be considered globally threatened. Breeding has been reported in October and November in South Africa (Maclean 1993) and was observed here in January.



#### 705 Wattle-eyed Flycatcher

*Platysteira peltata* Papa-moscas-carunculado

An uncommon breeding resident in coastal forest and woodland where it occurs in pairs. Its occurrence along the Limpopo River in the neighbouring Northern Province, South Africa, suggests that it may have occurred along the same river in this region, but has been displaced as a result of clearance of undergrowth for crops by the dense human population. It possibly still occurs along inaccessible stretches of the river. It has declined along the coast as a result of the destruction of forests. Breeding in southern Africa has been reported in summer, mostly September to January (ASAB2: 362). The population possibly does not exceed 500 birds and it is threatened in this region.



#### 707 Livingstone's Flycatcher

#### *Erythrocercus livingstonei* Papa-moscas de Livingstone

An uncommon breeding resident of dense woodland and forest north of the Limpopo River. It is usually encountered in pairs. It is inconspicuous because it remains hidden in the forest canopy much of the time and was probably overlooked at some localities. It has previously also been collected at Chimonzo (2433CD), south of the Limpopo River (Clancey 1996). No seasonal movements are suspected. The population probably exceeds 2000 birds. Breeding elsewhere in its range has been reported from December to January (ASAB2: 366).



## **708 Bluemantled Flycatcher**

Trochocercus cyanomelas

Papa-moscas-de-poupa

An uncommon breeding resident of coastal forest south of Maputo (2532DC). It occurs in pairs. The population probably exceeds 1000 birds. Egglaying in the neighbouring regions has been reported from October to January (Dean 1971; Irwin 1981).



# 710 Paradise Flycatcher

#### *Terpsiphone viridis* Papa-moscas do Paraíso

A common breeding resident and partial summer migrant of moist woodlands where it occurs in pairs. It undertakes complex seasonal movements throughout southern Africa, the details of which are poorly known (ASAB2: 370-371). The decline in reporting rates in winter suggests that part of the population leaves the region after breeding. A bird ringed in KwaZulu-Natal to the south was recovered in northern Mozambique (ASAB2: 370-371), suggesting the most likely direction of exodus for birds from this region. The lower winter reporting rates do not support the hypothesis that birds from farther south winter here (Clancey 1996; ASAB2: 370-371). The population probably exceeds 20 000 birds. Breeding in South Africa has been reported from September to March with a November to December peak (ASAB2: 370-371). It is an occasional host of the Diederik Cuckoo (Rowan 1983).



#### 711 African Pied Wagtail

*Motacilla aguimp* Alvéola-preta-e-branca

An uncommon breeding resident along rivers and the verges of wetlands where it occurs in pairs. It prefers fast-flowing rivers and streams with rocky beds. Its range is restricted because water-courses in the region are typically slow flowing with sandy beds. From Zimbabwe northwards it is commensal with humans (ASAB: 374), but no association with human activities was evident in this region. The population might not exceed 200 birds. Breeding in southern Africa is concentrated in the summer with a September to October peak (ASAB2: 374–375), and was observed here in August.



# **713 Cape Wagtail** *Motacilla capensis*

Alvéola do Cabo

It is an uncommon breeding resident in scrub, mostly around human habitation, along the littoral and along the Limpopo River. It occurs in pairs. The population may not exceed 200 birds. Egglaying in southern Africa has been reported mostly from August to November (ASAB2: 378–379).



#### **714 Yellow Wagtail** *Motacilla flava* Alvéola-amarela

An uncommon nonbreeding Palearctic summer migrant which was observed singly around the shores of Lake Chuali (2532BB) in February 1995 and January 1996. The number visiting the region is unlikely to exceed 50 birds. Three races, *M. f. flava, M. f. thunbergi* and *M. f. lutea*, have been reported (Clancey 1996).



#### 716 Grassveld Pipit

#### Anthus cinnamomeus Petinha-do-capim

A common breeding resident in grassland, marshland and cultivated lands. It occurs in pairs. It is absent from the most densely wooded parts. The population probably exceeds 5000 birds. Breeding in southern Africa occurs mainly from September to February (ASAB2: 380–381) and was observed here in January, July, November and December. Clancey (1996) identified two races *A. c. lichenya* and *A. c. bocagi* which are supposedly winter visitors from the north and west, as well as the resident *A. c. spurium*. The winter peak in reporting rates may reflect a winter influx, or a change in conspicuousness.



#### **720 Striped Pipit** Anthus lineiventris Petinha-estriada

An uncommon breeding resident in woodlands along the western frontier in the Libombo Mountain range, observed near Massingir (2331DD) in December 1994. Egglaying in southern Africa has been reported from September to January (ASAB2: 388).



# 722 Tree Pipit

Anthus trivialis Petinha-das-árvores

A rare nonbreeding Palearctic summer migrant, reported from Benguerra Island (2135CD) in November 1989. Prior to this survey it was reported from Inhaca Island (2632BB) in March 1968 (Jensen 1968). It is unobtrusive and may have been overlooked at some localities. It occurs more frequently in Zimbabwe to the northwest (ASAB2: 392).



# 723 Bushveld Pipit

Anthus caffer Petinha-do-mato

An uncommon breeding resident in broadleaved woodlands in the extreme south. It was seen in pairs. It is inconspicuous and was probably overlooked at some localities. Prior to this survey it was also reported from Bela Vista (2632BC) and Moamba (2532CA) (Clancey 1996). Egglaying in southern Africa has been reported from October to March (ASAB2: 394–395).



#### 727 Orangethroated Longclaw

# Macronyx capensis

Unha-longa-de-garganta-laranja

An uncommon breeding resident in sour grasslands in the extreme south where it was encountered in pairs. It was reported from the adjacent part of KwaZulu-Natal by Cyrus & Robson (1980) but was not reported there in the more recent southern African atlas (ASAB2: 400–401). The population probably does not exceed 200 birds. Breeding in the neighbouring parts of South Africa has been reported mainly from October to March, peaking from November to December (ASAB2: 400–401).



#### 728 Yellowthroated Longclaw

*Macronyx croceus* Unha-longa-amarelo

A common breeding resident in savanna, grassland and marshland with scattered bushes or trees. It avoids the most arid as well as the most densely wooded areas. It occurs in pairs. The population probably exceeds 40 000 birds. Egglaying in southern Africa has been reported in summer with a November to January peak (ASAB2: 402–403). Breeding was observed here in December.



#### 730 Pinkthroated Longclaw

#### *Macronyx ameliae* Unha-longa-vermelho

An uncommon breeding resident of marshland where it occurs in pairs. It was observed on the Inkomati River floodplain at Macanetta (2532DA) and near Lake Chuali (2532BB), but may have been overlooked at other localities because the extensive marshes which it inhabits tend to be inaccessible. It nevertheless may number fewer than 100 birds in the region. Prior to this survey it was also reported from Bela Vista (2632BC), Manhica (2532BD), Chicumbane (2533BA) and Inhambane (2335CD). The fact that it was not seen at these localities during this survey indicates that it has been adversely affected by human disturbance of marshlands along the coast. It is threatened in this region. Breeding in southern Africa has been reported from September to April (ASAB2: 404).



# 731 Lesser Grey Shrike

*Lanius minor* Picanço-pequeno

An uncommon nonbreeding Palearctic summer migrant to savannas where it was encountered singly. It prefers *Acacia* savanna but was occasionally encountered in broadleaved savanna. Almost the entire global population migrates to southern Africa, but mostly farther west (ASAB2: 406–407), and it occurs only marginally here. Density estimates in parts of Botswana range from 1 bird/20 ha to 1 bird/10 ha (ASAB2: 406–407). The population of this region probably exceeds 1000 birds, about 0.02% of the global population (ASAB2: 406–407). It has declined over the western part of its breeding range (ASAB2: 406–407).



#### **732 Fiscal Shrike** *Lanius collaris* Picanço-fiscal

An uncommon breeding resident south of the Limpopo River. It inhabits grassland, provided perches and bushes for nesting are available, savanna and cultivated lands, where it occurs in pairs. The population in the Libombo Mountains appears to be isolated from the coastal population. Whereas elsewhere in southern Africa it has readily adapted to man-made environments (ASAB2: 408-409), this does not appear to be so in this region. Although human modification of the coastal area appears to have created favourable habitat for the species in the form of roadsides, orchards and small patches of cultivated land, the species has remained uncommon. A possible explanation is that the species competes unsuccessfully with the Lilacbreasted Roller which has adapted more successfully to the modified habitats in the region. Breeding in the neighbouring regions has been reported throughout the year with a September to October peak (ASAB2: 408-409). The population probably exceeds 1000 birds.



#### 733 Redbacked Shrike

*Lanius collurio* Picanço-de-dorso-ruivo

A common nonbreeding Palearctic summer migrant to woodlands and savanna where it was encountered singly. Although it prefers *Acacia* woodland it was also encountered in broadleaved woodland. It is present from November to April and departure in mid-April is particularly abrupt. The number visiting this region probably exceeds 50 000 birds. Density estimates in thornveld in southern Africa range from 1 bird/2 ha to 8 birds/ha (ASAB2: 410–411). Site fidelity between years on the nonbreeding grounds has been documented (ASAB2: 410–411). It has declined over the western part of its breeding range (ASAB2: 410–411).



### 735 Longtailed Shrike

*Corvinella melanoleuca* Picanço-rabilongo

An uncommon breeding resident in *Acacia* savanna which occurs in family groups of up to 10 birds. No regular seasonal movements are suspected but it prefers areas with short grass and may move locally in response to fires. The population probably exceeds 500 birds. Egglaying in the Northern Province, South Africa, has been reported in summer with an October to January peak (Tarboton *et al.* 1987).



#### **736 Southern Boubou** Laniarius ferrugineus Picanço-ferrugíneo

A very common breeding resident of the undergrowth in forest, woodland and savanna. It is endemic to southern Africa and about 30% of its range lies within this region (ASAB2: 414-415). It occurs in pairs. It is replaced by the Tropical Boubou in riverine woodland along the Limpopo River upstream of Mapai (2231DD). However, it occurs in the surrounding woodlands in close proximity to the Tropical Boubou and hybridisation is possible in that area (ASAB2: 414–415). Its presence along the border with Zimbabwe north of Chicualacuala suggests that it may occur in the adjoining part of Zimbabwe, as claimed by Irwin (1981), although it was not reported there in the southern African atlas (ASAB2: 414-415). It avoids tall woodlands which lack undergrowth, such as the Brachystegia woodlands near Panda (2434BA). The population probably exceeds one million birds. No seasonal movements are suspected. Breeding in the neighbouring regions has been reported in summer with an October to November peak (ASAB2: 414-415). Two races have been identified, L. f. tongensis south of the Limpopo River and L. f. savensis to the north (Clancey 1996).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	23	10	11	12



#### 737 Tropical Boubou

#### *Laniarius aethiopicus* Picanco-tropical

An uncommon breeding resident of riverine woodland along the Limpopo River between the South African border at Pafuri (2231AD) and Mapai (2231DD), where it occurs in pairs. It occurs in close proximity to the Southern Boubou and may hybridise with that species (ASAB2: 416–417). It has not previously been recorded in this region, but has been recorded north of the Save River (Clancey 1996). The population is estimated at 200 to 500 birds. No seasonal movements are suspected. Breeding in southern Africa occurs throughout the year with a September to November egglaying peak (ASAB2: 416–417).



#### **740 Puffback** *Dryoscopus cubla* Picanço-de-almofadinha

A very common breeding resident of woodland and forest. It occurs in pairs. It is considerably less common in Mopane than in other woodland types. A density of 1 pair/42 ha in broadleaved woodland was estimated at a locality in the Northern Province, South Africa (ASAB2: 428–429). The population probably exceeds one million birds. No seasonal movements are suspected. Breeding in the Northern Province, South Africa, has been reported mainly from September to January (ASAB2: 428–429) and was observed here in January.

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	7	<5	21	11



# 741 Brubru

#### *Nilaus afer* Brubru

A common breeding resident of woodlands where it occurs in pairs. It is most common in the more arid woodlands and avoids the coast. Density estimates in suitable habitat in South Africa and Botswana range from 1 bird/25 ha to 1 bird/4 ha (ASAB2: 430–431). Fluctuations in reporting rates probably reflect changes in conspicuousness rather than seasonal movements. The population probably exceeds 100 000 birds. Breeding in southern Africa has been reported from August to April with a September to November peak (ASAB2: 430–431) and was observed here in October. Two races have been identified, *N. a. solivagus* in the west and *N. a. miombensis* in the east (Clancey 1996). The boundary between the races is not clear.



#### 742 Southern Tchagra

*Tchagra tchagra* Picanço-assobiador-austral

The species was reported from Inhaca Island (2632BB) where it is probably a breeding resident. It is resident on the KwaZulu-Natal coastal plain immediately to the south of the region and may have been overlooked in the neighbouring parts of this region. Farther north, it is replaced by the Threestreaked Tchagra. It does not occur in the adjacent part of Swaziland (Parker 1994a), and Clancey's (1996) assertion that it 'almost certainly' occurs in the northern aspects of the Lebombo Mountains within Mozambique was mistaken.



#### 743 Threestreaked Tchagra

#### Tchagra australis

Picanço-assobiador-de-coroa-castanha

A very common breeding resident of thickets in woodlands and savanna. It occurs in pairs. It was observed most frequently in broadleaved woodlands but also occurs in other woodland types. It occurs in scrub and forest fringes along the coast, a habitat occupied by the Southern Tchagra to the south of the region. It is absent or scarce in the Limpopo River floodplain and vicinity. It overlaps widely with the Blackcrowned Tchagra, was estimated to be slightly more numerous and tends to prefer denser cover than that species. No seasonal movements are suspected. Densities of 1 breeding pair/20 ha in Acacia and 1 breeding pair/25 ha in broadleaved woodland were estimated at one locality in the Northern Province, South Africa (Tarboton et al. 1987). The population probably exceeds 500 000 birds. Breeding in the neighbouring regions has been reported throughout the summer with an October to December egglaving peak (ASAB2: 424–425). Two races have been identified, T. a. littoralis along the coast in the north and T. a. tongensis elsewhere (Clancey 1996).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	<5	<5	<5	8

# BLACKCROWNED TCHAGRA

#### 744 Blackcrowned Tchagra

Tchagra senegala

Picanço-assobiador-de-coroa-preta

A very common breeding resident of woodland and savanna where it occurs in pairs. It was observed most frequently in broadleaved woodlands but also occurs in other woodland types. It overlaps widely with the Threestreaked Tchagra but tends to favour more open country than that species and was estimated to be slightly less numerous. No seasonal movements are suspected. A density of 1 breeding pair/25 ha in suitable habitat was estimated at one locality in the Northern Province, South Africa (Tarboton *et al.* 1987). The population probably exceeds 300 000 birds. Egglaying in the Northern Province, South Africa, has been reported from September to January with an October to December peak (Tarboton *et al.* 1987).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	<5	<5	<5	5



#### **747 Gorgeous Bush Shrike** *Telophorus quadricolor* Picanço-quadricolor

A common breeding resident of woodland with dense undergrowth and forest fringes, where it occurs in pairs. Lower reporting rates in winter probably result from decreased conspicuousness when not calling and no seasonal movements are suspected. The population probably exceeds 20 000 birds. Egglaying in southern Africa has been reported from October to February (Irwin 1981). Two races have been identified, *T. q. quadricolor* south of the Inkomati River and *T. q. tongensis* elsewhere (Clancey 1996).



#### 748 Orangebreasted Bush Shrike

*Telophorus sulfureopectus* Picanço-de-peito-laranja

A common breeding resident of savanna and open woodland where it occurs in pairs. Lower reporting rates in winter probably result from decreased conspicuousness when not calling and no seasonal movements are suspected. The population probably exceeds 40 000 birds. Breeding in southern Africa has been reported throughout the summer (ASAB2: 436–437).



#### 750 Olive Bush Shrike

#### *Telophorus olivaceus* Picanço-oliváceo

An uncommon breeding resident of dense coastal woodland and forest where it occurs in pairs. It may have been overlooked at some localities because it tends to remain hidden in the foliage. Prior to this survey it was collected at Mapinhane (2235AC) (Clancey 1996). No seasonal movements are suspected. A density of 1 breeding pair/1.5 ha in forests has been estimated in the former Transvaal, South Africa (Harris & Arnott 1988). The population probably exceeds 2000 birds. It has declined as a result of the destruction of natural vegetation along the coast. Breeding in the neighbouring regions has been reported from September to February (ASAB2: 438– 439).



#### 751 Greyheaded Bush Shrike

Malaconotus blanchoti Picanço-de-cabeça-cinzenta

An uncommon breeding resident of woodland where it occurs in pairs. It avoids the more open as well as the densest woodlands. There is no evidence for any seasonal movements. The population probably exceeds 5000 birds. Breeding in the neighbouring regions has been reported from August to January (ASAB2: 440–441).



# REDBILLED HELMETSHRIKE 22°S • . • 24 Recorded in 71 grid cells, 21.6 % Total records: 90 Mean reporting rate for range: 18.1 % 26 100 % ........... 0 JFMAMJJASOND 3/ 32°F 36

#### **753 White Helmetshrike** *Prionops plumatus*

Atacador-de-poupa-branca

A common breeding resident of woodland and savanna where it occurs in family groups of four to eight birds. It was encountered in all woodland types but at much lower density in Mopane. The strong association with Mopane reported for southern Africa (ASAB2: 446-447) probably reflects the presence of the species in habitats overlapping the Mopane biome. The northern and southern populations are separated by the floodplains of the Inkomati and Limpopo Rivers. Peak densities of 1 group/10 ha were estimated in South Africa (Vernon 1977). It is known to disperse widely after breeding (ASAB2: 446–447), but this was less noticeable in this region. Higher reporting rates in winter mirror a similar trend in the rest of Southern Africa. An influx from farther north has been postulated to explain this (ASAB2: 446-447), but there is no clear evidence for it. An alternative explanation is that breeding activity makes the species less conspicuous during summer. The population probably exceeds one million birds. Breeding in the Northern Province, South Africa, has been reported from September to January with an October to November peak (ASAB2: 446-447). Breeding was observed here in September, November and February.

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	22	<5	45	32

#### 754 Redbilled Helmetshrike

Prionops retzii

Atacador-de-poupa-preta

A common breeding resident of dense woodlands, where it occurs in family groups of four to eight birds. Although most common in *Brachystegia* and *Julbernadia* woodlands, it was encountered in all the denser woodland types. The northern and southern populations are separated by the floodplains of the Inkomati and Limpopo Rivers. The population probably exceeds 100 000 birds. Increased reporting rates in winter may be related to post-breeding dispersal. Egglaying in southern Africa has been reported in summer, mainly August–November (ASAB2: 448–449). Breeding was observed here in January, September and October. It is the only known host of the Thickbilled Cuckoo (Rowan 1983).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	<5	<5	35	<5

#### CHESTNUTFRONTED HELMETSHRIKE



#### 755 Chestnutfronted Helmetshrike

#### Prionops scopifrons Atacador-de-fronte-castanha

An uncommon breeding resident of dense mixed woodland and forest which occurs in family groups of four to eight birds. Its numbers are probably greatly reduced as a result of the removal of natural vegetation along the coast. The population possibly does not exceed 500 birds and it is threatened in this region. Breeding elsewhere in its range has been reported from October to December (ASAB2: 445).



#### 756 Whitecrowned Shrike

*Eurocephalus anguitimens* Picanço-de-coroa-branca

An uncommon breeding resident of arid savannas where it is encountered in pairs and groups of up to 10 birds. It is almost endemic to southern Africa (ASAB2: 450–451). The population probably exceeds 5000 birds. Egglaying in the Northern Province, South Africa, has been reported from October to December (Tarboton *et al.* 1987).



#### 758 Indian Myna

Acridotheres tristis Miná

A group of about six birds was present around human habitation at Ponta Malongane (2632DD) in November 1997 (S. Taylor & E. Eksteen). It had not previously been recorded in Mozambique (Clancey 1996) and this represents a northward expansion of its range along the coast from KwaZulu-Natal, South Africa, where the species is an alien invader, introduced around 1900 (ASAB2: 454–455). It is not yet established as a breeding resident.



#### **760 Wattled Starling** *Creatophora cinerea*

Estorninho-carunculado

A common visitor to woodlands and savanna, subject to considerable nomadism. It was encountered most often in winter, but some birds were present and possibly bred during summer. It occurs most often in the more arid west, but sporadic invasions of the mesic coastal region were noted. It was encountered in flocks numbering up to 100 birds and sometimes in mixed flocks with *Lamprotornis* starlings. The population probably fluctuates greatly with irregular movements in and out of neighbouring regions and is likely to exceed 10 000 birds at times. In the Northern Province, South Africa, egglaying was reported from October to February (Tarboton *et al.* 1987).



#### 761 Plumcoloured Starling

#### *Cinnyricinclus leucogaster* Estorninho-de-dorso-violeta

A common breeding intra-African summer migrant to woodland and savanna where it was usually encountered in pairs. It arrives in October, and departure is gradual, with some birds lingering on into June. Egglaying in the Northern Province, South Africa, has been reported mainly during November and December (ASAB2: 462–463). The population probably exceeds 10 000 birds.



#### 763 Longtailed Starling

*Lamprotornis mevesii* Estorninho-metálico-rabilongo

An uncommon breeding resident which occurs in pairs in riverine woodlands along the upper reaches of the Limpopo and Save Rivers. The population probably exceeds 500 birds. It may have occurred farther downstream in the past and retreated as a result of bush clearance for agriculture. Breeding in southern Africa has been reported from September to May (ASAB2: 466–467).



#### 764 Glossy Starling

#### Lamprotornis nitens Estorninho-metálico-de-ombros-violeta

Estorninno-metalico-de-ombros-violeta

A common breeding resident of savanna and woodland as far north as the Limpopo River valley where it overlaps narrowly with the Greater Blue-eared Starling, which replaces it farther north. It overlaps with the Blackbellied Starling near the coast. It was encountered singly, in pairs and in flocks of up to 10 birds and sometimes in mixed flocks with other *Lamprotornis* starlings. The population probably exceeds 40 000 birds. Breeding in the neighbouring regions has been reported mostly from October to February (ASAB2: 468–469). It is one of the hosts of the Greater Honeyguide (ASAB2: 468–469).



#### 765 Greater Blue-eared Starling

Lamprotornis chalybaeus Estorninho-grande-de-orelha-azul

A common breeding resident of arid woodlands and savanna. It is encountered in flocks of up to 100 birds. Although a preference for broadleaved woodland has been suggested elsewhere in southern Africa (ASAB2: 470–471), it was encountered at least as often in *Acacia* woodland here. It overlaps narrowly with the Glossy Starling in the Limpopo River valley and rarely south of the Inkomati River and replaces that species farther north. It appears to be more tolerant of arid conditions than the Glossy Starling. As in Zimbabwe, reporting rates are higher in winter (ASAB2: 470–471). This possibly reflects changes in conspicuousness related to flocking behaviour. The population probably exceeds 100 000 birds. Egglaying in the Northern Province, South Africa, has been reported from October to November (Tarboton *et al.* 1987).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	9	<5	<5	6


#### 768 Blackbellied Starling

## Lamprotornis corruscus

Estorninho-de-barriga-preta

An uncommon breeding resident of dense coastal and riverine woodland and forest where it is encountered in pairs or flocks of up to 30 birds. The population probably exceeds 5000 birds. Breeding in southern Africa has been reported from October to March with a December to February peak (ASAB2: 474–475).



## 769 Redwinged Starling

Onychognathus morio Estorninho-de-asa-castanha

An uncommon breeding resident of woodland in the Libombo Mountain range. It is usually encountered in pairs but sometimes forms flocks of up to 30 birds. It nests on rock faces in the Libombos and also on road bridges in the adjoining lowlands. It occurs more commonly in mountainous terrain farther west (ASAB2: 476–477) and only marginally here. Breeding in southern Africa has been reported mainly from October to January (ASAB2: 476–477). It has expanded its range in southern Africa by exploiting man-made habitats and nest sites (ASAB2: 476–477). This is true to a small extent in this region. The population is unlikely to exceed 500 birds.



## **772 Redbilled Oxpecker** *Buphagus erythrorhynchus* Pica-bois-de-bico-vermelho

An uncommon breeding resident which may be encountered in any habitat where large ungulates are present. It was often encountered singly but may gather in flocks of up to 20 birds when sufficient host animals are present. The species was presumably far more numerous in the past, when both game animals and livestock were more plentiful. The population probably exceeds 2000 birds. Breeding in southern Africa has been reported from September to February (ASAB2: 482– 483). There is no evidence for any seasonal movements.



## **779 Marico Sunbird** *Nectarinia mariquensis* Beija-flor de Marico

A common breeding resident in arid woodlands and savanna. It occurs in pairs. It is most common in Acacia woodlands but also occurs in open broadleaved woodlands. It is replaced by the Purplebanded Sunbird in moist woodlands. There is a break in the distribution in the south corresponding with the valley and floodplain of the Inkomati River. In Botswana an average density of 1 bird/2.4 ha in suitable habitat and a peak density of 2 birds/ha were estimated (ASAB2: 494-495). The population probably exceeds 10 000 birds. A specimen collected in August 1960 at Bela Vista has been ascribed to the nominate race which occurs in the west of South Africa (Clancey 1996). This is the only evidence to date of any seasonal movements. The peak in reporting rates in August to September coincides with the period when it is attracted to flowering plants and is therefore most conspicuous. Breeding in southern Africa has been reported from August to May with a September to January peak (ASAB2: 494-495).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	8	<5	<5	<5



## **780 Purplebanded Sunbird** *Nectarinia bifasciata* Beija-flor-de-peito-roxo

A very common breeding resident of dense woodland and forest where it occurs in pairs. Contrary to Clancey (1996), who described it as a winter migrant, it was found to be present throughout the year. The peak in reporting rates in late winter coincides with the period when it is attracted to flowering plants and is therefore most conspicuous. It is frequently confused with the similar Marico and Neergaard's Sunbirds, which may have played a role in the previous incorrect conclusion about its status. Its range is complementary with that of the Marico Sunbird which occurs in more open habitats. The population probably exceeds 20 000 birds. Egglaying in neighbouring KwaZulu-Natal, South Africa, has been reported from September to March with an October to November peak (Dean 1971).



# **782** Neergaard's Sunbird *Nectarinia neergaardi*

Beija-flor de Neergaard

This common breeding resident species is nearly endemic to the region, extending only marginally into South Africa in the south. More than 80% of its range lies in this region (ASAB2: 499). The distribution map indicates two distinct populations which are separated by a wide band containing the Inkomati and Limpopo River floodplains. The southern population occurs in coastal sand forest while the northern population occurs in mixed woodlands away from the coast. It is absent from pure Brachystegia woodland. It occurs in pairs. No seasonal movements are suspected. The population probably exceeds 5000 birds. A specimen record from Xinovane (2532BB) in 1949 (Natural History Museum, Maputo) indicates that its range in the south has contracted owing to the destruction of natural forests. Its present strongholds are not threatened. In the south, most of the forests in which it occurs are protected within the Maputo Elephant Reserve and, in the north, its woodland habit has escaped the slash-and-burn agriculture which has destroyed coastal forests. Globally, it has been classified as globally 'near-threatened' (Collar et al. 1994). Breeding has been reported in July, October and November in South Africa (Dean 1971).



## 786 Yellowbellied Sunbird

*Nectarinia venusta* Beija-flor-de-barriga-amarela

A single bird, presumably a vagrant, was observed in dense woodland at Banhine (2332BB) in July 1997. It occurs regularly north of the Save River (Clancey 1996).



## 787 Whitebellied Sunbird

*Nectarinia talatala* Beija-flor-de-barriga-branca

A very common breeding resident and possibly a partial migrant of woodlands and savanna, where it occurs in pairs. It avoids dense woodland and forest. The resident population probably exceeds two million birds. It is believed to undertake seasonal movements across southern Africa out of the dry west in winter as well as nomadic wandering (ASAB2: 508-509). The higher winter reporting rates in this region suggest a possible influx of nonbreeding migrants from the west. On the other hand, other sunbird species show the same pattern, which may relate to changes in behaviour and conspicuousness rather than to seasonal movements. Concentrations associated with flowering bushes yielded density estimates of up to 3 birds/ha in Botswana (ASAB2: 508-509). Densities of 1 bird/3 ha in Acacia and 1 bird/10 ha in broadleaved woodland were estimated at one locality in the Northern Province, South Africa (Tarboton et al. 1987). Breeding in southern Africa has been reported throughout the year with a September to January peak (ASAB2: 508-509) and was observed here in November.

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	31	23	19	25



## **789 Grey Sunbird** *Nectarinia veroxii* Beija-flor-cinzento

A common breeding resident of coastal forest and dense woodlands where it occurs in pairs. The population probably exceeds 5000 birds. The lack of seasonality in the reporting rates does not support the conjecture that birds from South Africa move here in winter (ASAB2: 512–513). Breeding was observed in January. Egglaying in South Africa has been reported from September to January with a November peak (Dean 1971). As in South Africa (ASAB2: 512–513), it has declined as a result of the destruction of coastal forests. It overlaps with the Olive Sunbird but avoids interaction by keeping to the canopy while that species forages lower down.



## **790 Olive Sunbird** *Nectarinia olivacea* Beija-flor-oliváceo

An uncommon breeding resident of coastal forest. It may have been overlooked at some localities because it is inconspicuous when not calling. No seasonal movements are suspected. The population is estimated at fewer than 500 birds. It has declined as a result of the destruction of coastal forest and is threatened in this region. It has also declined in South Africa (ASAB2: 514–515). Breeding in South Africa has been reported from August to April with an October to February peak (ASAB2: 514–515). It overlaps with the Grey Sunbird but forages at lower levels in the same forests.



## **791 Scarletchested Sunbird** *Nectarinia senegalensis* Beija-flor-de-peito-escarlate

A common breeding resident of woodlands and savanna where it occurs in pairs. It is most common along the coast. Elsewhere in southern Africa it has been described as highly nomadic, irruptive and possibly a partial migrant (ASAB2: 516–517). In common with other sunbird species it shows increased reporting rates during winter–spring. These possibly relate to changes in behaviour and conspicuousness rather than seasonal movements. The population probably exceeds 20 000 birds. Small numbers are captured for the cage-bird trade. Breeding in neighbouring regions has been reported throughout the year with a September to December peak (ASAB2: 516–517) and was reported here in October and December. Two races have been identified in the region, *N. s. gutturalis* south of the Limpopo River and *N. s. inaestimata* to the north (Clancey 1996).



## **792 Black Sunbird** *Nectarinia amethystina* Beija-flor-preto

The species is represented in this region by two distinct populations. One is an uncommon breeding resident in wood-lands in the Libombo Mountain range south of the Inkomati River, occurring as a visitor as far east as Inhaca Island (2632BB) (race *N. a. adjuncta* (Clancey 1996)), and the other is an uncommon breeding resident in moist woodlands north of the Limpopo River (race *N. a. kirkii*). The combined population probably exceeds 5000 birds. Breeding in neighbouring regions occurs in summer with an October to December peak (ASAB2: 518–519).



## 793 Collared Sunbird

Anthreptes collaris Beija-flor-de-colar

A common breeding resident of moist woodlands and forest where it occurs in pairs. No seasonal movements are suspected. The population probably exceeds 20 000 birds. Breeding in southern Africa has been reported throughout the summer (ASAB2: 524–525) and was reported here in January.



#### 794 Bluethroated Sunbird

Anthreptes reichenowi Beija-flor-de-garganta-azul

An uncommon breeding resident of coastal forest and tall Ironwood *Androstachys johnsoni* forests inland. It occurs in pairs. Its numbers are probably greatly reduced as a result of the removal of natural vegetation along the coast and it is being further threatened by logging operations inland. No seasonal movements are suspected. The population may not exceed 500 birds. It is threatened in this region and classified as globally 'near-threatened' (Collar *et al.* 1994).



## 795 Violetbacked Sunbird

Anthreptes longuemarei

Beija-flor-violeta

A single bird was observed in dense mixed woodland (2134DA) in July 1996. It was collected at Rumbacaca (2135CD) in June 1971 (Clancey 1996). It occurs regularly north of the Save River (Clancey 1996).



## **796 Cape White-eye** *Zosterops pallidus* Olho-branco do Cabo

It occurs as a breeding resident in woodlands in the Libombo Mountains along the western frontier with Swaziland, where it replaces the Yellow White-eye. It is endemic to southern Africa. It is encountered in flocks of up to 20 birds. The population is unlikely to exceed 500 birds. Breeding in the neighbouring regions has been reported throughout the summer with a December peak (ASAB2: 526–527).



#### 797 Yellow White-eye

#### *Zosterops senegalensis* Olho-branco-amarelo

An uncommon breeding resident of moist woodlands where it usually occurs in pairs but occasionally in flocks of up to 10 birds. Its range adjoins but apparently does not overlap that of the Cape White-eye. It is inconspicuous and was probably overlooked at some localities. No seasonal movements are suspected. The population probably exceeds 10 000 birds. Breeding in southern Africa has been reported throughout the summer (ASAB2: 528–529).



## 798 Redbilled Buffalo Weaver

Bubalornis niger Tecelão-de-bico-vermelho

An uncommon breeding resident of arid savannas where it occurs in groups of up to 10 birds. Because it occurs at low densities, it was probably overlooked at some localities. The population probably exceeds 1000 birds. Breeding in Southern Africa has been reported throughout the summer (ASAB2: 530–531) and was reported here in September and November.



## 801 House Sparrow

#### Passer domesticus Pardal-comum

A common breeding resident in towns and villages. It was introduced to South Africa from India in the late 19th century (ASAB2: 536–537) and reached this region in the 1950s (Clancey 1996). A separate introduction occurred in Maputo in 1955 (Liversidge 1985). It nests on buildings and forages around homesteads. It occurs in flocks of up to 30 birds. The population probably exceeds 20 000 birds. In southern Africa breeding has been reported throughout the year with an October to November peak (ASAB2: 536–537).



#### **804** Greyheaded Sparrow

Passer diffusus Pardal-de-cabeça-cinzenta

A common breeding resident of woodlands and savanna which often forages in cultivated lands. It sometimes forages alongside House Sparrows, but is less closely associated with homesteads than that species. It nests more often in tree holes than in buildings. It occurs in pairs or flocks of up to 20 birds. The population probably exceeds 50 000 birds. No seasonal movements are suspected. In southern Africa, breeding has been reported throughout the summer (ASAB2: 542–543) and was reported here in November and February.



## **805** Yellowthroated Sparrow

## Petronia superciliarus

Pardal-de-garganta-amarela

A common breeding resident of woodlands. It occurs in pairs or flocks of up to 20 birds. Although it occasionally forages in cultivated lands, it is associated with human habitation to a lesser degree than the Greyheaded and House Sparrows. It is most common in *Brachystegia* and *Julbernadia* woodland. A break in the distribution in the south corresponds with the floodplains of the Inkomati and Limpopo Rivers. A density of 1 breeding pair/20 ha in broadleaved woodland was estimated at one locality in the Northern Province, South Africa (Tarboton *et al.* 1987). The population probably exceeds 50 000 birds. No seasonal movements are suspected. Breeding in neighbouring regions has been reported mostly from September to January (ASAB2: 544–545).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	<5	<5	16	7



#### **807** Thickbilled Weaver

Amblyospiza albifrons Tecelão-de-bico-grosso

An uncommon breeding resident. It occurs in flocks of up to 20 birds in woodland and forest and breeds in reedbeds. It is most conspicuous when breeding, which accounts for higher reporting rates in summer, and no seasonal movements are suspected. The population probably exceeds 5000 birds. Breeding in southern Africa has been reported from October to March (ASAB2: 548–549).



# OLIVEHEADED WEAVER d 22°S lacksquare• 24° Recorded in 3 grid cells, .9 % Total records: 9 Mean reporting rate for range: 27.3 % 26 100 0 JFMAMJ. 3/ 32°F 36

## **808 Forest Weaver** *Ploceus bicolor* Tecelão-das-florestas

An uncommon breeding resident of dense woodland and forest which occurs in pairs or family groups of up to 10 birds. A break in the distribution in the south corresponds with the floodplain of the Inkomati River. The population probably exceeds 10 000 birds. No seasonal movements are suspected. Breeding in southern Africa has been reported in summer with a peak from October to January (ASAB2: 550–551) and was reported here in September. Three races have been identified in the region, *P. b. lebomboensis* in the Libombo Mountains, *P. b. sclateri* along the coast south of the Limpopo River and *P. b. stictifrons* north of the Limpopo River (Clancey 1996).

## **809 Oliveheaded Weaver**

*Ploceus olivaceiceps* Tecelão-de-cabeça-olivácea

A rare breeding resident which was observed only in tall Brachystegia woodland near Panda (2434BA). It was reported from the same vicinity by Clancey (1996). This particular woodland type appears to be restricted to this site within the region and may be less than 10 000 ha in area. The woodland has a canopy of height 15-20 m and is largely free of undergrowth. The Oliveheaded Weaver is replaced by the Forest Weaver in woodlands with substantial undergrowth. The woodland is being cleared for cultivation and this weaver must be regarded as the most endangered species in the region. The population is estimated at between 100 and 400 birds. Breeding was observed early in October. The species has been reported from three localities in central and northern Mozambique and at least two each in Malawi, Tanzania and Zambia (Vincent 1936; Benson & Benson 1977; Britton 1980; Aspinwall 1984; Clancey 1996). Assuming that the highland populations are not as small and isolated as the lowland populations of Panda and Muanza (central Mozambique), the global population may be of the order of 50 000 birds. All of the localities where it occurs are potentially at risk of deforestation, especially those within Mozambique. Heavy logging is known to have taken place in the region encompassing one of the central Mozambican sites (Muanza) (Ryan 1995) and that population may already be extinct. Although it was omitted from the global list of threatened species (Collar et al. 1994), presumably because of the lack of precise information about its status, it is globally threatened. The lowland populations of Panda and Muanza differ subspecifically from the populations at Alto Malocue (Zambesia Province), Tete Province, Malawi and Tanzania, which occur at high altitude (Clancey & Lawson 1966). The population at Panda is separated by more than 600 km from any other known population.



## 810 Spectacled Weaver

# Ploceus ocularis

## Tecelão-de-lunetas

A common breeding resident of moist woodlands where it occurs in pairs. No seasonal movements are suspected. The population probably exceeds 50 000 birds. Breeding in southern Africa has been reported throughout the year but mainly September to February (ASAB2: 552–553) and was reported here in December. Two races have been identified in the region: *P. o. brevior* south of the Limpopo River, and *P. o. suahelicus* to the north (Clancey 1996).



#### 811 Spottedbacked Weaver

*Ploceus cucullatus* Tecelão-malhado

A common breeding resident of woodlands and savanna near water. It occurs in colonies which may number hundreds of birds during the breeding season and disperses in loose flocks in winter. It was overlooked to some extent during winter when its drab nonbreeding plumage makes it difficult to distinguish from other weavers and no seasonal movements are suspected. The population probably exceeds 10 000 birds. Breeding in the neighbouring regions has been reported mainly from September to February (ASAB2: 554–555) and was reported here from August to May. It is one of the regular hosts of the Diederik Cuckoo.



#### **814 Masked Weaver** *Ploceus velatus*

## Tecelão-de-máscara

A common breeding resident of woodlands, savanna, clearings and cultivated lands where it occurs in colonies of up to 15 birds (with a single adult male) during the breeding season and disperses in loose flocks in winter. In comparison with the Spottedbacked Weaver, it favours drier habitats, but the two species overlap widely. It was overlooked to some extent during winter when its drab nonbreeding plumage makes it difficult to distinguish from other weavers and no seasonal movements are suspected, although there is some evidence for dispersal and partial migration in other parts of its range (ASAB2: 560-561). The population probably exceeds 5000 birds. In the neighbouring regions, breeding was reported almost throughout the year but mostly from August to March (ASAB2: 560-561) and was reported here from November to February. It is one of the regular hosts of the Diederik Cuckoo (Rowan 1983). It has expanded its range in South Africa by exploiting man-made environments (ASAB2: 560-561) and is likely to continue to do so in this region with the expansion of agricultural activities.



#### 815 Lesser Masked Weaver

*Ploceus intermedius* Tecelão de Cabanis

An uncommon breeding resident of woodland and savanna where it occurs in colonies of up to 50 birds during the breeding season and disperses in loose flocks in winter. It is usually encountered near open water. It was overlooked to some extent during winter when its drab nonbreeding plumage makes it difficult to distinguish from other weavers and no seasonal movements are suspected. The population probably exceeds 2000 birds. Clancey's (1996) assessment that it was more common than the Masked Weaver may be applicable north of the Save River. Breeding in the neighbouring regions was reported from September to March (ASAB2: 562–563) and was observed here from November to February.



#### 816 Golden Weaver

#### *Ploceus xanthops* Tecelão-dourado

A pair was observed near Mawayela (2434AA) in March 1997 and was probably overlooked at other localities owing to its low density. It is presumably a rare breeding resident of savanna bordering marshland. Prior to this survey it was collected at Coguno (2434BC) (Clancey 1996). Breeding in neighbouring regions was recorded mainly from September to March (ASAB2: 564–565).



## **817 Yellow Weaver** *Ploceus subaureus* Tecelão-amarelo

A common breeding resident in reedbeds near the coast and in the floodplains of the Inkomati and Limpopo Rivers. It occurs in colonies which may number hundreds of birds during the breeding season and disperses in loose flocks in winter. It was overlooked to some extent during winter when its drab nonbreeding plumage makes it difficult to distinguish from other weavers and no seasonal movements are suspected. The population probably exceeds 20 000 birds. Breeding in South Africa has been reported from August to April (ASAB2: 566–567) and was observed here from September to February.



#### 818 Brownthroated Weaver

## Ploceus xanthopterus

Tecelão-de-garganta-castanha

An uncommon breeding resident of reedbeds near the coast in the south, usually associated with extensive wetlands. It was encountered in pairs. Prior to this survey it was collected as far north as Mapinhane (2235AC) (Clancey 1996). It was overlooked during winter when its drab nonbreeding plumage makes it inconspicuous and no seasonal movements are suspected. The population probably exceeds 1000 birds. It has declined in this region as a result of the disturbance of wetlands; it has also declined in Botswana (ASAB2: 568–569). Breeding in neighbouring regions was reported from August to March with a November to January peak (ASAB2: 568– 569).



#### **819 Redheaded Weaver**

Anaplectes rubriceps Tecelão-de-cabeça-vermelha

An uncommon breeding resident which occurs in pairs. It was observed most often in broadleaved woodland but also sometimes in *Acacia* woodland. It avoids forest and dense woodlands. No seasonal movements are suspected. The population probably exceeds 10 000 birds. Breeding in the neighbouring regions has been reported from September to March with an October to January peak (ASAB2: 570–571) and was observed here from September to January. It is a host of the Diederik Cuckoo (Rowan 1983).



#### 820 Cuckoo Finch

#### Anomalospiza imberbis Tecelão-parasita

The species was recorded near Boane (2632AB) by M. Rees in February 1994. It is likely to be an uncommon breeding resident of grassland and marshland in the extreme south. It is inconspicuous and may have been overlooked at some localities. It has not previously been reported in the region (Clancey 1996). It is a brood parasite of cisticolas and prinias (Maclean 1993).



#### 821 Redbilled Quelea

*Quelea quelea* Quelea-de-bico-vermelho

A very common breeding resident of all habitats with some grass. It is limited by the availability of water. It was usually encountered in small flocks of up to 100 birds but occasionally in flocks numbering thousands. A breeding colony numbering hundreds of thousands of nests in riverine woodland bordering a marsh was observed at Zinave (2133BD) in January 1997, and smaller colonies were observed in reedbeds among cultivated lands near Chokwe (2433CA) in December 1997 and in scrubby woodland near Banhine (2332BB) in February 1998. There is some evidence for complex movements across South Africa which may be irregular (ASAB2: 573–575). In this region there is no clear evidence for seasonal movements. The summer peak in reporting rates probably reflects greater conspicuousness when breeding. The population probably exceeds 10 million birds at times. Subsistence farmers expend a great deal of energy in physically defending their crops from predation by this species (S. Munthali pers. comm.). Its numbers have increased to pest status in cereal-crop-producing parts of southern Africa (ASAB2: 573-575) and this is likely to occur increasingly in this region as agricultural activities expand. The timing of breeding varies from year to year in response to rainfall and has been reported from September to May in neighbouring regions (ASAB2: 573-575).



## 822 Redheaded Quelea

## *Quelea erythrops* Quelea-de-cabeça-vermelha

An uncommon breeding resident or summer migrant of reedbeds and marshlands near the coast. It was observed in flocks of less than 20 birds. Prior to this survey it was observed breeding at Bela Vista (2632BC) (Clancey 1996). It may have been overlooked during the winter months when it is difficult to detect in its drab nonbreeding plumage. Clancey (1996) described it as a summer migrant, but without conclusive evidence. The population probably exceeds 1000 birds.



## **824 Red Bishop** *Euplectes orix* Cardeal-tecelão-vermelho

A common breeding resident of grassland, marshland and cultivated lands, where it occurs in flocks of up to 100 birds. It is seldom reported in winter when its drab nonbreeding plumage makes it inconspicuous and difficult to identify. No seasonal movements are suspected. Its numbers have increased to pest status in cereal-crop-producing regions of southern Africa (ASAB2: 578–579) and this is likely to occur in this region as agricultural activities expand. Breeding in neighbouring regions has been reported mainly from October to March (ASAB2: 578–579) and was observed here in February. The population probably exceeds 5000 birds.



#### 827 Yellowrumped Widow

#### *Euplectes capensis* Viúva-de-rabadilha-amarela

An uncommon breeding resident of coastal broadleaved savanna where it occurs in pairs or flocks of up to 20 birds. It is rarely reported in winter when its drab nonbreeding plumage makes it difficult to detect and no seasonal movements are suspected. The population, which probably exceeds 1000 birds, is separated by more than 300 km from the South African population. Breeding in the eastern part of South Africa has been reported mainly from December to March (ASAB2: 582–583).



#### 828 Redshouldered Widow

*Euplectes axillaris* Viúva-de-espáduas-vermelhas

A common breeding resident of moist grassland, marshland and cultivated lands. It forms flocks of up to 100 birds. It is reported less often in winter when its drab nonbreeding plumage makes it relatively inconspicuous and no seasonal movements are suspected. Breeding in South Africa has been reported mainly from November to March (ASAB2: 584– 585). It is less numerous here than in neighbouring Swaziland where it is particularly common in sugar-cane fields (Parker 1994a). The population probably exceeds 50 000 birds.



## 829 Whitewinged Widow

# Euplectes albonotatus

## Viúva-de-asa-branca

An uncommon breeding resident of savannas where it occurs in flocks of up to 20 birds. It favours drier habitats than other *Euplectes* species. The population in the northeast appears to be isolated from the southern population. It is reported less often in winter when its drab nonbreeding plumage makes it relatively inconspicuous and no regular seasonal movements are suspected. It is nomadic during winter. The population probably exceeds 10 000 birds. Breeding in southern Africa has been reported from October to April (ASAB2: 586–587).



#### 831 Redcollared Widow

*Euplectes ardens* Viúva-de-colar-vermelho

An uncommon breeding resident of savanna and marshland, where it occurs in flocks of up to 100 birds. It is seldom reported in winter when its drab nonbreeding plumage make it inconspicuous and difficult to identify. No seasonal movements are suspected. The population probably does not exceed 1000 birds. Egglaying in the former Transvaal, South Africa, has been reported from November to March (Tarboton *et al.* 1987).



## **834 Melba Finch** *Pytilia melba* Aurora-melba

A common breeding resident of arid woodland and savanna, where it occurs in pairs. It is most common in Acacia woodlands but also occurs in other woodland types. It is restricted by the availability of drinking water. Higher reporting rates in winter probably relate to changes in behaviour and conspicuousness when not breeding and no seasonal movements are suspected. Elsewhere in southern Africa densities of from 0.2 to 1.25 breeding pairs/ha in suitable habitat were estimated (ASAB2: 594-595). The population probably exceeds 200 000 birds. The timing of breeding varies from year to year in response to rainfall. Breeding was observed in May. Elsewhere in southern Africa, breeding has been reported in late summer, peaking from March to April (ASAB2: 594-595). It is the sole host of the Paradise Whydah (Maclean 1993). During 1996, after unusually heavy rains, Paradise Whydahs were in breeding plumage through to the end of July, implying an extended breeding season by the Melba Finch.

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	9	<5	<5	6



## **835 Green Twinspot** *Mandingoa nitidula* Pintadinha-verde

An uncommon breeding resident of coastal forest which occurs in pairs and family parties. It may have been overlooked at some localities because it is inconspicuous. Clancey (1996) claimed that it occurs in the Libombo Mountains without any supporting records and this is now considered unlikely because it prefers moister conditions and has not been encountered in the neighbouring part of Swaziland (Parker 1994a). It has declined as a result of the destruction of coastal forest. The population is estimated at fewer than 500 birds and it is threatened in this region. It is sought after by the cagebird trade. Breeding in southern Africa has been reported from October to April (ASAB2: 596).



## 838 Pinkthroated Twinspot

#### *Hypargos margaritatus* Pintadinha-de-peito-rosado

An uncommon breeding resident of the undergrowth in dense woodlands. It is a near endemic, with 70–80% of its range lying in this region, and it extends only a short distance into the neighbouring parts of South Africa and Swaziland (ASAB2: 599). It occurs in pairs and family parties. No seasonal movements are suspected. It occurs in drier habitats than the Green and Redthroated Twinspots. Up to 2000 birds are captured and exported annually for the cage-bird trade (M. Rees pers. comm.). The population probably exceeds 80 000. The only documented breeding record is from January in KwaZulu-Natal (Maclean 1993).



## 839 Redthroated Twinspot

*Hypargos niveoguttatus* Pintadinha-de-peito-vermelho

An uncommon resident of dense undergrowth in moist woodland which was recorded in the vicinity of the Limpopo River mouth (2533BA). It occurs in pairs. It has previously also been collected at Inhambane (2335CD), Massinga (2335AD) and Rumbacaca (2135CD) (Clancey 1996). It has declined as a result of the destruction of natural vegetation along the coast. It is inconspicuous and may have been overlooked at some localities. The population is unlikely to exceed 500 birds and it is threatened in this region. Breeding in Zimbabwe has been reported in all months except July to August with a March to June peak (ASAB2: 600). It is sought after by the cage-bird trade.



#### 840 Bluebilled Firefinch

#### *Lagonosticta rubricata* Peito-de-fogo-de-bico-azul

An uncommon breeding resident of dense undergrowth in moist woodlands. It was encountered most often in the Libombo Mountains along the border with Swaziland. It was under-recorded owing to its close similarity both in appearance and vocalization to the Jameson's Firefinch. Although it has a distinct breeding song, its contact calls, which are more frequently heard, are indistinguishable from those of Jameson's Firefinch. It may therefore be more widespread and common than the distribution map suggests. It occurs in flocks of up to 10 birds. Although Jameson's Firefinch tends to prefer drier habitat, the two species overlap and sometimes occur together. No seasonal movements are suspected. The population probably exceeds 2000 birds. Egglaying in southern Africa has been reported from November to June (ASAB2: 602-603). It is the exclusive host of the Black Widowfinch (Maclean 1993). It is sometimes taken by trappers for the cagebird trade.



## **841 Jameson's Firefinch** *Lagonosticta rhodopareia* Peito-de-fogo de Jameson

An uncommon breeding resident of dense undergrowth, often near watercourses. It was underrecorded owing to its inconspicuousness and its similarity to the Bluebilled Firefinch. It occurs in pairs or small flocks of up to 10 birds. It generally prefers drier habitats than the Bluebilled Firefinch, but the two species overlap and sometimes occur together. Nomadism in response to changes in conditions has been reported in parts of its range in southern Africa (ASAB2: 604–605), but no regular seasonal movements are suspected. The population probably exceeds 10 000 birds. Egglaying in the Northern Province, South Africa, has been reported from December to April (Tarboton *et al.* 1987). It is the exclusive host of the Purple Widowfinch (Maclean 1993). It is sometimes taken by trappers for the cage-bird trade.



## 842 Redbilled Firefinch

#### *Lagonosticta senegala* Peito-de-fogo-de-bico-vermelho

An uncommon breeding resident of the undergrowth in savanna and woodlands. It occurs in pairs and family parties. It is inconspicuous and was probably overlooked in some localities. No seasonal movements are suspected. The population probably exceeds 20 000 birds. Breeding in southern Africa has been reported throughout the year (ASAB2: 606–607). It is the sole host of the Steelblue Widowfinch (Maclean 1993). It is sometimes taken by trappers for the cage-bird trade.



## 844 Blue Waxbill

*Uraeginthus angolensis* Peito-celeste

A very common breeding resident of savanna and woodland, most common in Acacia woodland. It avoids dense woodland and forest. It occurs in flocks of up to 20 birds. Densities of 0.25-0.75 breeding pairs/ha were estimated at a locality in the Northern Province, South Africa (Tarboton et al. 1987). Some short range seasonal movement has been detected around the western extremities of its range in southern Africa (ASAB2: 608-609) but no seasonal movements are suspected here. It is sometimes taken by trappers for the cage-bird trade. The population may exceed five million birds. Breeding in southern Africa has been reported from midsummer to early winter, peaking from December to April (ASAB2: 608-609) and was observed here in March and April. Two races have been identified in the region, U. a. natalensis south of the Inkomati River floodplain and U. a. niassensis to the north (Clancey 1996).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	71	17	37	29



#### 845 Violeteared Waxbill

#### *Uraeginthus granatinus* Monsenhor

An uncommon breeding resident of arid woodland and savanna. It occurs in pairs. Densities ranging from 1 bird/50 ha to 1 pair/ha have been estimated elsewhere in southern Africa (ASAB2: 610–611). It is subject to nomadic movements, but no regular seasonal movements are suspected. The population probably exceeds 5000 birds. It is highly sought after by the cage-bird trade but its nomadic nature possibly assists it to escape being trapped on a regular basis. Breeding in southern Africa has been reported throughout the year with a peak from December to May (ASAB2: 610–611). It is the exclusive host of the brood parasitic Shafttailed Whydah (Maclean 1993).



## **846 Common Waxbill** *Estrilda astrild* Bico-de-lacre-comum

An uncommon breeding resident in rank grass, marshland and cultivated lands, always near water. It occurs in flocks of up to 50 birds. In winter it vacates areas where wetlands have dried up, but is otherwise sedentary. The population probably exceeds 20 000 birds. Breeding in neighbouring regions has been reported mostly from November to April (ASAB2: 612–613). It is the primary host of the brood parasitic Pintailed Whydah (Maclean 1993).



## **848 Grey Waxbill** *Estrilda perreini* Bico-de-lacre-cinzento

An uncommon breeding resident of the undergrowth in coastal woodlands and forest fringes. It occurs in pairs and family groups. It is inconspicuous and was probably overlooked at some localities. It has declined as a result of the removal of natural vegetation along the coast. It is popular as a cage-bird and persecution by the trade is further depleting the surviving population. The population probably exceeds 5000 birds. Up to 800 birds are exported annually for the cage-bird trade (M. Rees pers. comm.). Breeding in neighbouring KwaZulu-Natal, South Africa, has been reported from October to February (Dean 1971) and was observed here in January, April, August and December.



**850 Swee Waxbill** *Estrilda melanotis* Bico-de-lacre-de-garganta-preta

An uncommon breeding resident of woodland and forest along the border with Swaziland in the Libombo Mountain range in the extreme south. A flock of about 10 birds was seen near Namaacha (2532CC) in September 1995. It is endemic to southern Africa. The population probably does not exceed 500 birds. Egglaying in southern Africa has been reported from October to April (ASAB2: 618–619).



## 852 Quail Finch

## *Ortygospiza atricollis* Bico-de-lacre-codorniz

A common breeding resident of short grassland and marshland. It occurs in flocks of up to 10 birds. It is nomadic and no regular seasonal movements are suspected. The population probably exceeds 50 000 birds. Breeding in southern Africa has been reported from November to June (ASAB2: 622–623) and was observed here in March.



## 854 Orangebreasted Waxbill

Sporaeginthus subflavus Bico-de-lacre-de-peito-laranja

An uncommon resident of moist grassland, marshlands and cultivated lands which occurs in flocks of up to 20 birds. No seasonal movements are suspected. The population probably exceeds 5000 birds. It does not occur north of the Limpopo River and consequently the population centred on the South African plateau is isolated from that of the Mashonaland Plateau of Zimbabwe (*contra* ASAB2: 624–625). Breeding in southern Africa has been reported from midsummer to midwinter (ASAB2: 624–625).



## 855 Cutthroat Finch

# *Amadina fasciata* Degolado

An uncommon breeding resident which was observed in pairs in Mopane woodlands, riverine woodlands, urban gardens and coastal broadleaved savanna. It may have been overlooked at other localities because it is inconspicuous, but it is very scarce despite its apparently catholic taste in habitat. No seasonal movements are suspected. The population probably exceeds 5000 birds. It has not previously been recorded within the region (Clancey 1996). Breeding in southern Africa has been reported mainly in the late summer (ASAB2: 626–627).



#### **856 Redheaded Finch**

*Amadina erythrocephala* Degolado-de-cabeça-vermelha

Two birds were taken by trappers on the banks of the Limpopo River near Chokwe (2433CA) in July 1995 (R McQueen pers. comm.). It is a vagrant from the arid west of southern Africa. It has not previously been reported in Mozambique (Clancey 1996).



#### 857 Bronze Mannikin

#### Spermestes cucullatus Freirinha-bronzeada

A very common breeding resident of broadleaved savanna, moist woodlands and cultivated lands. It occurs in flocks of up to 50 birds. There is no evidence for any seasonal movements in this region. The population probably exceeds 500 000 birds. Breeding in the neighbouring regions has been reported throughout the year with a December to March peak (ASAB2: 630–631). Range expansions in response to human activities have been reported in parts of southern Africa (ASAB2: 630– 631). It may have increased along the coast where it exploits cultivated lands. It is sometimes taken by trappers for the cage-bird trade.



#### 858 Redbacked Mannikin

Spermestes bicolor Freirinha-de-dorso-vermelho

An uncommon breeding resident of moist woodlands and forest fringes. It occurs in flocks of up to 20 birds. The population probably exceeds 10 000 birds. It is nomadic and perhaps partially migratory in its southern African range (ASAB2: 632–633), but there was no evidence for regular seasonal movements in this region. Breeding in Zimbabwe has been reported throughout the year, but mainly from October to April (ASAB2: 632–633). It is sometimes taken by trappers for the cage-bird trade.



## 859 Pied Mannikin

Spermestes fringilloides Freirinha-maior

An uncommon breeding resident which was observed in pairs in thickets in the vicinity of homesteads and cultivated lands in the south. It is nomadic and regular seasonal movements are not suspected. The population probably does not exceed 1000 birds and is being depleted by trapping for the cage-bird trade. It is threatened in this region. Egglaying in southern Africa has been reported from October to June (Maclean 1993).



## 860 Pintailed Whydah

*Vidua macroura* Viuvinha

An uncommon breeding resident of rank grass, marshland and cultivated lands, wherever its host species, the Common Waxbill, is present. It occurs in flocks of up to 20 birds but males are encountered singly when they are breeding. Densities of 1 call-site/12.4–23.8 km<sup>2</sup> were estimated in South Africa (ASAB2: 636–637). The species was infrequently recorded outside the breeding season because it is difficult to distinguish from other *Vidua* finches in nonbreeding plumage. No seasonal movements are suspected. The population probably exceeds 2000 birds. It breeds in late summer, in synchrony with its host, the Common Waxbill. It has expanded its range in the west of southern Africa by exploiting man-made habitats (ASAB2: 636–637), and has probably increased in numbers in this region in response to agricultural development. It is subject to trapping for the cage-bird trade.



#### 861 Shafttailed Whydah

#### Vidua regia

#### Viúva-seta

An uncommon breeding resident in arid savanna and woodland wherever the host species, the Violeteared Waxbill, is present. It occurs in flocks of up to 20 birds but males are seen singly in the breeding season. Densities of 1 call-site/11.3– 13.5 km<sup>2</sup> were estimated in South Africa (ASAB2: 638–639). The species was not recorded outside the breeding season because it is indistinguishable from other *Vidua* finches in nonbreeding plumage. There is some evidence for partial migration over short distances in Namibia (ASAB2: 638–639). The population probably exceeds 500 birds. It breeds in late summer, in synchrony with its host, the Violeteared Waxbill (Maclean 1993).



## **862 Paradise Whydah** *Vidua paradisea* Viuvinha do Paraíso

An uncommon breeding resident which occurs in arid woodland and savanna, wherever the host species, the Melba Finch, is present. It occurs in flocks of up to 20 birds but males are seen singly in the breeding season. The species was infrequently recorded outside the breeding season as it is similar to other *Vidua* finches in nonbreeding plumage and no seasonal movements are suspected. Densities of 1 call-site/8.5– 62.0 km<sup>2</sup> were estimated in suitable habitat in South Africa (ASAB2: 640–641). The population probably exceeds 10 000 birds. It breeds in late summer, in synchrony with its host. During 1996, birds in breeding plumage were observed through to the end of July, indicating an extended breeding season following exceptionally heavy summer rains. It is subject to trapping for the cage-bird trade.



## 864 Black Widowfinch

*Vidua funerea* Viúva-negra

An uncommon breeding resident of woodlands in the extreme south of the region, wherever the host species, the Bluebilled Firefinch, occurs. It occurs in small flocks, possibly with other *Vidua* species, but males occur singly when breeding. The population probably exceeds 200 birds. It was not recorded outside the breeding season because it is indistinguishable from other *Vidua* finches in nonbreeding plumage and there is no evidence for seasonal movements. It breeds in late summer, in synchrony with its host.



# **865 Purple Widowfinch** *Vidua purpurascens*

Viúva-púrpura

An uncommon breeding resident of woodlands, wherever the host species, the Jameson's Firefinch, is present. It was recorded at relatively few localities owing to the difficulty of distinguishing it from the Steelblue Widowfinch. It occurs in small flocks, possibly with other *Vidua* species, but males occur singly when breeding. It was not recorded outside the breeding season as it is indistinguishable from other *Vidua* finches in nonbreeding plumage. It is possible that short-range seasonal movements do take place. It has not previously been recorded in the region (Clancey 1996). The lack of records in the neighbouring part of Swaziland (ASAB2: 643) is partly due to the fact that it was inaccurately described in popular fieldguides. The population may exceed 1000 birds. It breeds in late summer, in synchrony with its host.



## 867 Steelblue Widowfinch

#### *Vidua chalybeata* Viúva-azul

An uncommon breeding resident of savanna and woodlands, wherever the host species, the Redbilled Firefinch, is present. It was recorded at relatively few localities owing to the difficulty of distinguishing it from the Purple Widowfinch. It occurs in small flocks, possibly with other *Vidua* species, but males occur singly when breeding. It was not recorded outside the breeding season because it is indistinguishable from other *Vidua* finches in non-breeding plumage and there is no clear evidence for regular seasonal movements. The population probably exceeds 2000 birds. It breeds in late summer, in synchrony with its host. A quota of 15 000 was issued to the cagebird trade in Mozambique for the year 1997. It is unlikely, however, that large numbers were captured, because it occurs at low densities and in remote areas.



## 869 Yelloweyed Canary

*Serinus mozambicus* Xerico

A common breeding resident of woodlands and savanna, but most numerous in cultivated lands. It occurs in pairs or in flocks of up to 100 birds. It is popular as a cage-bird, both locally and abroad. Up to 10 000 birds are exported annually under permit, while unknown numbers are captured and sold illegally (M. Rees pers. comm.). It is considered unlikely that the trade has a significant effect on the wild population, which probably exceeds two million birds. It overlaps with and occasionally forages together with the Lemonbreasted Canary. Breeding in southern Africa has been reported throughout the year, mostly from October to May (ASAB2: 650–651) and was observed here in July. Two races have been identified in the region: *S. m. granti* south of the Inkomati River floodplain and *S. m. mozambicus* to the north (Clancey 1996).

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	10	13	21	10



## **871 Lemonbreasted Canary** *Serinus citrinipectus* Canário-de-peito-limão

An uncommon breeding resident of arid woodland, broadleaved coastal savanna and cultivated lands. A preference for palm savanna has been reported in the neighbouring regions (ASAB2: 649), but in this region its association with that habitat is not clear-cut (Clancey 1996). It is possible that it is dependent on the Ilala Palm Hyphaene natalensis for nest sites (Chittenden 1998), but further investigation of its breeding habits is required to confirm this. It occurs in pairs or in flocks of up to 100 birds. It is a near-endemic to Mozambique, occurring only marginally in neighbouring South Africa and Zimbabwe. Although it is numerous at some localities, its distribution is patchy. It is captured and exported as a cage-bird, with up to 2000 birds exported annually (M. Rees pers. comm.), and the effect of the trade on the wild population is not known and must be of some concern, because it is a near endemic. It overlaps with and occasionally forages together with the Yelloweyed Canary. No seasonal movements are suspected. Breeding has been recorded in KwaZulu-Natal in December and January (Robson 1990; Chittenden 1998). The population probably exceeds 50 000 birds.



## **877 Bully Canary** *Serinus sulphuratus* Canário-grande

An uncommon breeding resident of broadleaved savanna, cultivated lands and woodlands. It occurs in pairs. It is captured and exported as a cage-bird in small numbers. The trade is not considered to affect the wild population significantly. There is some evidence for short range seasonal movements in parts of its range (ASAB2: 664–665) but none are suspected in this region. The population probably exceeds 50 000 birds. In neighbouring regions breeding has been reported mostly from August to November (ASAB2: 664–665) and was observed here in January.



#### 881 Streakyheaded Canary

#### Serinus gularis

Chamariço-de-cabeça-estriada

A common breeding resident of woodlands, where it occurs in pairs. Increased reporting rates in early summer may be related to increased conspicuousness when birds are attracted to flowering trees and no seasonal movements are suspected. The population probably exceeds 40 000 birds. Breeding in southern Africa has been reported mostly in summer with an October to December peak (ASAB2: 672–673).



#### 882 Blackeared Canary

Serinus mennelli Chamariço-de-mascarilha

An uncommon breeding resident of *Brachystegia*, *Julbernadia* and mixed woodlands. It occurs in pairs and flocks of up to 20 birds. Some short-range seasonal movement has been reported in Zimbabwe (ASAB2: 674), but there is no evidence for such in this region. The population probably exceeds 10 000 birds. Breeding in Zimbabwe has been reported from September to February with a January to February peak (Irwin 1981). It is sought after by the cage-bird trade, but is not often captured as it occurs at low density in relatively inaccessible areas. It has declined as a result of the destruction of woodland for agriculture, as is the case in Zimbabwe (ASAB2: 674).



## 883 Cabanis's Bunting

## *Emberiza cabanisi* Escrevedeira de Cabanis

It was observed in mixed woodlands near Cometala (2134DC) in July 1996. It may be a visitor to the region from farther north or possibly a rare breeding resident. It had not previously been recorded in the region but occurs regularly north of the Save River (Clancey 1996).



## 884 Goldenbreasted Bunting

*Emberiza flaviventris* Escrevedeira-de-peito-dourado

A common breeding resident of woodlands and savanna. It was encountered in all woodland types but was most numerous in open *Combretum* and *Terminalia* dominated woodlands. A substantial gap in the distribution coincides with the floodplains of the Inkomati and Limpopo Rivers. It usually occurs in pairs but sometimes in flocks of up to 20 birds. Some short-range seasonal movements have been proposed in parts of its southern African range (ASAB2: 676–677), but there is no evidence for such movements in this region. Densities ranging from 1 bird/20 ha to 1 bird/0.8 ha were estimated in suitable habitat in Botswana (ASAB2: 676–677). The population probably exceeds 500 000 birds. Breeding has been reported from October to May with a November to December peak in southern Africa (ASAB2: 676–677) and was observed here in January.

Woodland type:	ACA	MOP	MIO	OBW
Birds/100 ha:	<5	<5	<5	9


#### 886 Rock Bunting

#### *Emberiza tahapisi* Escrevedeira-das-pedras

This species occurs in woodlands and savanna on stony ground in the Libombo Mountains and vicinity. The absence of midwinter records suggests that it may be a breeding summer visitor in this region, but it is resident in the Libombo Mountains in the adjacent part of Swaziland (and a summer visitor in the low-lying parts to the west) (Parker 1994a). It occurs in pairs. The population probably exceeds 5000 birds. Egglaying in the former Transvaal, South Africa, has been reported from October to April, mainly December to March (Tarboton *et al.* 1987).

### Appendix 1

## Species which were previously recorded in Southern Mozambique but not observed during this survey

#### 10 Wandering Albatross Diomedea exulans

Described as a nonbreeding visitor to the seas off the territory by Clancey (1996). An unconfirmed record from Inhaca Island (2632BB) was submitted during this survey.

#### 15 Darkmantled Sooty Albatross Phoebetria fusca

A dead bird was found on the beach at Xai-Xai in July 1959 (2533BA) (Cole 1964).

### 17 Southern/Northern Giant Petrel Macronectes giganteus/halli

Described as a nonbreeding visitor to seas off the territory, recorded in the bay of Maputo (2632BA) (Clancey 1996). Sightings referred to by Clancey date to before 1971, and may refer to the Northern Giant Petrel *M. halli* which was not recognized as a species at the time (Brooke *et al.* 1981). The same applies to a bird ringed in the South Orkneys and recovered at Inhambane (2335CD) in July 1958 (SAFRING).

#### 24 Softplumaged Petrel Pterodroma mollis

A bird was collected at Inhaca Island (2632BB) in April 1962 (Lawson 1963).

#### 27 Kerguelen Petrel Lugensa brevirostris

The only record for Mozambique is of a dead bird recovered on Inhaca Island (2632BB) in August 1980 (Herdam 1994).

#### 29 Broadbilled Prion Pachyptila vittata

Has previously been recorded at Inhaca (2632BB), Zavora (2435CA), Xai-Xai (2533BA) and the bay of Maputo (2632BA) (Herdam 1994; Clancey 1996).

#### 41 Wedgetailed Shearwater Puffinus pacificus

Recorded from the Mozambique Channel (Clancey 1996).

#### 42 European Storm Petrel Hydrobates pelagicus

Recorded off Inhaca Island (2632BB) (Clancey 1996).

#### 54 Australian Gannet Morus serrator

A specimen was collected in the bay of Maputo (2632BA) in August 1941 (Natural History Museum, Maputo). It is difficult to distinguish from the Cape Gannet and could occur in Mozambican waters without being noted.

#### 77 Whitebacked Night Heron Gorsachius leuconotus

This species has only been observed once within Mozambique, at the Futi Channel (2632DA) (Tello 1973). It probably occurs along well-wooded rivers and streams in the extreme south of the region and was overlooked during this survey.

#### 112 Cape Shoveller Anas smithii

The species was noted at Lagoa Chuali (two birds) (2532BB) and Lake Marrangua (seven birds) (2433CB) in September 1971 (Milstein 1984) and the Maputo Elephant Reserve (2632DB) in January 1970 (Tello 1973). It is probably an irregular visitor to freshwater lakes in the region.

#### 129 Bat Hawk Macheiramphus alcinus

It has previously been collected at Manhica (2532BD) (Clancey 1996). It is inconspicuous owing to its nocturnal habits and is probably a breeding resident in the region, though suitable habitat is limited.

#### 202 Blue Quail Coturnix adansonii

The species has been collected at Manhica (2532BD) and Clancey (1996) considered it 'a fairly common breeding resident'. It is inconspicuous and easily overlooked. It has probably declined in numbers owing to human disturbance and replacement of natural vegetation on the coastal plain.

#### 215 Baillon's Crake Porzana pusilla

It has previously been collected at Bela Vista (2632BC) (Clancey 1996). It is easily overlooked as it tends to remain hidden in the reeds and may be a breeding resident in the region.

#### 271 Knot Calidris canutus

A bird ringed in England was recovered at Maputo (2532DC) in October 1970 (SAFRING). Herdam (1994) reported it from Maputo in June, September, November and December.

#### 275 Longtoed Stint Calidris subminuta

A bird was observed in Maputo Bay (2632BA) in February 1977. This was the second confirmed record of the species in southern Africa (Hockey *et al.* 1986).

#### 276 Rednecked Stint Calidris ruficollis

A bird was observed in Maputo Bay (2632BA) in February 1977 (Hockey *et al.* 1986).

#### 283 Broadbilled Sandpiper Limicola falcinellus

Has been reported from Inhaca Island (2632BB) (Hockey *et al.* 1986).

#### 307 Arctic Skua Stercorarius parasiticus

It was reported from Inhaca Island in October and November 1976 (up to four birds were seen) (Brooke *et al.* 1981) and from Maputo (2532DC) by Herdam (1994). In January 1976 a bird was found in the Kruger National Park, South Africa, after being swept inland, presumably across Mozambique, by Cyclone Danae (Brooke *et al.* 1981).

#### 310 Subantarctic Skua Catharacta antarctica

The species has previously been reported at Maputo (2532DC) in August 1959 (Brooke Worth 1960) and Inhaca Island (2632BB) in April 1968 (Jensen 1968).

#### 328 Arctic Tern Sterna paradisaea

A bird ringed in Helsinki, Finland, in July 1966 was recovered at Vilanculos (2135CC) in July 1967 (SAFRING). Tello (1973) reported the species from the Maputo Elephant Reserve (2632BC) but did not indicate how it was distinguished from the similar Common Tern. The locality, upstream from an estuary, suggests the latter species.

#### 331 Blacknaped Tern Sterna sumatrana

Has previously been reported from Maputo Bay (2632BA), Inhaca Island (2632BB), where four birds were seen in November 1976, and Xai-Xai (2533BA) (Clancey 1996).

#### 333 Bridled Tern Sterna anaethetus

Has previously been reported from Maputo Bay (2632BA), Inhaca Island (2632BB) and Bilene (2533AC), where five birds were blown inshore during Cyclone Danae in January 1976 (Clancey 1996; Brooke *et al.* 1981).

#### 418 Alpine Swift Apus melba

Reported from Maputo (2532DC) in December 1980 (Herdam

1994). This is the only record to date of the species in Mozambique, though Clancey (1996) considered that it 'must occur quite regularly' over southern Mozambique.

#### 430 Halfcollared Kingfisher Alcedo semitorquata

Previously recorded at Goba (2632AA) and Namaacha (2532CC) in the Libombo Range (Clancey 1996; Herdam 1994). Listed by Tello (1973) without supporting details from the Maputo Elephant Reserve (2632DB), where it is unlikely.

#### 472 Green Tinker Barbet Pogoniulus simplex

The species has previously been collected at Chicomo (2434CA) (Clancey 1996) and is possibly a breeding resident.

#### 645 Barthroated Apalis Apalis thoracica

It has previously been reported from Goba (2632AA) and Mount Meponduine (2531DD) (Clancey 1996).

#### 682 Redwinged Warbler Heliolais erythroptera

This species has previously been collected at Mongue (2335CD) and Mapinhane (2235AC) (Clancey 1996).

#### 699 Vanga Flycatcher Bias musicus

It has previously been reported from Inhambane (2335CD) and Massinga (2335AD) (Clancey 1996).

#### 712 Longtailed Wagtail Motacilla clara

Previously reported from Namaacha (2532CC) and Goba (2632AA) in the Libombo Mountains (Clancey 1996; Herdam 1994).

#### 717 Longbilled Pipit Anthus similis

It has previously been reported from Mount Meponduine (2531DD) in the Libombo Mountains (Clancey 1996), and from the neighbouring part of Swaziland (Parker 1994a).

#### 851 East African Swee Estrilda quartinia

Some birds were taken by trappers in the vicinity of Funhalouro (2334AB) in 1995 (M. Rees pers. comm.). It may be a winter visitor from higher altitudes in Zimbabwe (Irwin 1981). It has not previously been recorded from the region (Clancey 1996).

### Appendix 2

#### Species which are subject to confirmation

#### 33 Grey Petrel Procellaria cinerea

Reported from the Mozambique Channel in 1867 (Clancey 1996).

#### 36 Fleshfooted Shearwater Puffinus carneipes

Claimed for the seas off Inhaca Island (2632BB) in October 1994.

#### 39 Little Shearwater Puffinus assimilis

The account of a bird taken at sea in 1954 leaves doubt as to whether the bird was actually in Mozambican waters (Clancey 1996).

#### 44 Wilson's Storm Petrel Oceanites oceanicus

Clancey (1996) describes the species as 'probably a regular non-breeding visitor', but the only record for the species is unsubstantiated.

#### Whitefaced Storm Petrel Pelagodroma marina

A single sight record from Bazaruto Island (2135CB) in 1950 (Clancey 1996) is considered doubtful (McLachlan & Liversidge 1978, p. xxxi).

#### 47 Redtailed Tropicbird Phaethon rubricauda

Claimed from the Mozambique Channel in 1867 (Clancey 1996).

#### 80 Bittern Botaurus stellaris

The species has been recorded from the borders of the region (Clancey 1996) and probably occurs within the region in marshlands with extensive reedbeds but has been overlooked to date.

#### 158 Black Sparrowhawk Accipiter melanoleucus

One unconfirmed sighting was reported from the Maputo Elephant Reserve (2632DB). It is astonishing that the species has never been satisfactorily reported within Sul do Save because it occurs regularly in the neighbouring territories in a variety of woodland and forest habitats (Parker 1995b). It has possibly been overlooked but it is more conspicuous and distinctive than other *Accipiter* species which were regularly observed, and is therefore rare, if it occurs at all.

#### 167 Pallid Harrier Circus macrourus

There are no records for the region, although Clancey (1996) describes it as 'probably a regular visitor'.

#### 174 African Hobby Falcon Falco cuvierii

The species was included by Clancey (1996) in the belief that it had been overlooked. A report from Namaacha (2532CC) in May 1980 is regarded as unsubstantiated (Herdam 1994).

#### 182 Greater Kestrel Falco rupicoloides

A previous sight record from Maputo (2532DC) may have arisen from a misidentification (Clancey 1996). The normal range of the species is in the west of southern Africa.

#### 257 Blackwinged Plover Vanellus melanopterus

Previous records from Inhambane (2335CD) and Chokwe (2433CA) may have arisen from confusion with the Lesser Blackwinged Plover (Clancey 1996; Herdam 1994).

#### 267 Spotted Redshank Tringa erythrops

It has been claimed for Inhaca Island (2632BB) but with no details supplied (Berruti & Sinclair 1983).

#### 273 Dunlin Calidris alpina

A record from Inhaca Island (2632BB) during this survey has not been ratified by the Rarities Committee of BirdLife South Africa.

#### 285 Great Snipe Gallinago media

A previous record from Marracuene (2532DA) may have arisen from a misidentification (Clancey 1996).

#### 305 Blackwinged Pratincole Glareola nordmanni

A previous record from Lagoa Chuali (2532BB) may have arisen from a misidentification (Clancey 1996).

#### 329 Antarctic Tern Sterna vittata

Clancey (1996) claims that it 'occurs seasonally' but gives no details.

#### 360 Cinnamon Dove Aplopelia larvata

Clancey (1996) regards it as 'almost certainly present in forest at Namaacha' but it has never been reported within the region.

#### 374 European Cuckoo Cuculus canorus

At least some previous records of this species must refer to the African Cuckoo, with which it was formerly regarded as conspecific (Clancey 1996; McLachlan & Liversidge 1978). This species probably occurs as a nonbreeding summer migrant within the region, but it has never been unequivocally recorded.

#### 406 Rufouscheeked Nightjar Caprimulgus rufigens

Described by Clancey (1996) as 'present seasonally in the western Gaza district, especially between the Limpopo and Save Rivers', without reference to any actual records.

#### 410 Pennantwinged Nightjar Macrodipteryx vexillaria

Clancey (1996) considers that it 'almost certainly occurs in western Gaza district'.

#### 488 Olive Woodpecker Mesopicus griseocephalus

Clancey (1996) describes it as 'locally quite common' in the southern Libombos, where it has been recorded in neighbouring parts of South Africa and Swaziland, but it is not clear whether it has ever actually been recorded in Mozambican territory. The highest (and wettest) parts of the Libombos lie outside of Mozambique; therefore the range of the species does not necessarily extend into Mozambique.

#### 493 Monotonous Lark Mirafra passerina

Clancey (1996) considered that this species 'almost certainly occurs locally in western Maputo and Gaza districts' on the basis of its occurrence in the neighbouring Kruger National Park, South Africa. While it is possible that the species continues to be overlooked in Mozambique, Clancey's assumption that habitats are continuous across the international boundary is mistaken.

#### 523 Pearlbreasted Swallow Hirundo dimidiata

As for the last species, Clancey (1996) has inferred the occurrence of this species from its presence in the Kruger National Park, South Africa. Discontinuities in habitat may account for the continued lack of observations within Mozambique.

#### 526 Greater Striped Swallow Hirundo cucullata

Another species which Clancey (1996) assumes to be present in the area bordering the Kruger National Park, South Africa.

#### 544 African Golden Oriole Oriolus auratus

Described as 'almost certainly present seasonally in the rich miombo of the interior of Inhambane District' (Clancey 1996).

#### 547 Black Crow Corvus capensis

Clancey (1996) mistakenly believed it to occur in the Libombo range in the neighbouring part of Swaziland, and deduced that it 'almost certainly' occurred in Mozambican territory. This part of Swaziland is in fact quite unsuitable for the species, and it has never been reported there (Parker 1994a). It is therefore not at all likely to occur in Sul do Save.

#### 559 Spotted Creeper Salpornis spilonotus

Clancey (1996) considered this species to be likely in 'parts of the interior' on the basis of records from neighbouring territories.

#### 570 Yellowstreaked Bulbul Phyllastrephus flavostriatus

Clancey (1996) claimed that the species is present in the Libombo Mountains along the border with Swaziland, but did not mention any actual records from there. The species does not occur in the neighbouring part of Swaziland (Parker 1994a). It does occur near the southern border in KwaZulu-Natal at the coast (ASAB2: 142), and may occur in the adjacent part of Mozambique.

#### 582 Sentinel Rock Thrush Monticola explorator

The species has been claimed from Mount Meponduine (2531DD) in the Libombo Mountains (Lamm 1955).

#### 598 Chorister Robin Cossypha dichroa

A record from Inhaca (2632BB) during this survey was unsubstantiated. The species was previously listed for the Maputo Elephant Reserve (2632BC) (Tello 1973) but without supporting details.

#### 623 Yellowbreasted Hyliota Hyliota flavigaster

The species was believed to occur in this region on the basis of a specimen collected at Macia (Clancey 1996) and housed in the Natural History Museum in Maputo. The label of the specimen concerned does not specify either the province nor the coordinates of the locality, and since Macia is not unique as a place name, the specimen is now believed to have originated in northern Mozambique. No suitable habitat occurs near Macia (2533AA), Gaza Province. A locality previously known as Macia at 16°48'S 37°46'E (Defense Mapping Agency 1969) is more likely to be the place of origin of the specimen.

#### 639 Barratt's Warbler Bradypterus barratti

Clancey (1996) reported it to be present in the Libombo Mountains along the border with Swaziland, but without reference to any records. It has not been reported from the neighbouring part of Swaziland (Parker 1994a).

#### 670 Wailing Cisticola Cisticola lais

Clancey (1996) claims that it occurs in the southern Libombo Mountains without mentioning any actual records. The habitat in this region is unsuitable for the species, which occurs in open grasslands in cooler and moister conditions. It does not occur in the neighbouring part of Swaziland (Parker 1994a).

#### 692 Collared Flycatcher Ficedula albicollis

Reported from Inhaca Island (2632BB) in unsuitable habitat and without supporting details (De Boer & Bento 1998).

#### 718 Plainbacked Pipit Anthus leucophrys

Previous records from Mount Meponduine (2531DD) and Estatuene (2632AA) in the Libombo Mountains are considered doubtful (Lamm 1955). In neighbouring Swaziland, the species occurs only further west in open grasslands in cooler and moister conditions (Parker 1994a ).

#### 762 Burchell's Starling Lamprotornis australis

A previous record from Mapulanguene (2432AC) is considered unsatisfactory (Clancey 1996).

#### 826 Golden Bishop Euplectes afer

The species has been reported from Aldeia de Barragem

(2432BD), but is easily confused with the Yellowrumped Widow which is more likely there (Herdam 1994).

#### 832 Longtailed Widow Euplectes progne

Reported in grasslands near Ponto do Ouro (2632DD) in December 1994.

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The Avian Demography Unit at the University of Cape Town has produced the following books:

- □ The Atlas of Southern African Birds. Vol. 1: Non-passerines. Vol. 2: Passerines. Edited by J.A. Harrison, D.G. Allan, L.G. Underhill, M. Herremans, A.J. Tree, V. Parker & C.J. Brown. Published in 1997 by BirdLife South Africa.
- Review of Ring Recoveries of Birds of Prey in Southern Africa: 1948–1998. T.B. Oatley, H.D. Oschadleus, R.A. Navarro & L.G. Underhill. Published in 1998 by the Endangered Wildlife Trust.
- □ The Important Bird Areas of Southern Africa. Edited by Keith N. Barnes. Published in 1998 by BirdLife South Africa.
- □ The Atlas of the Birds of Sul do Save, Southern Mozambique. Vincent Parker. Published in 1999 by the Avian Demography Unit and the Endangered Wildlife Trust.
- □ TOTAL CWAC Report: Coordinated Waterbird Counts in South Africa, 1992–97. P.B. Taylor, R.A. Navarro, J.A. Harrison, M. Wren-Sargent & S.L. Kieswetter. Published in 1999 by the Avian Demography Unit.

#### Forthcoming:

□ Threatened Birds of South Africa, Lesotho and Swaziland – 1999. Edited by Keith N. Barnes. To be published in 1999 by BirdLife South Africa.



Further information about these books may be obtained from the Avian Demography Unit, University of Cape Town, Rondebosch, 7701, South Africa, or email adu@maths.uct.ac.za



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Sappi is committed to sound environmental management and environmental education, including the sponsorship of a wide range of tree, wild-flower and bird books, as well as support for various lecture and research posts at a number of universities in South Africa. Sappi is proud to have been associated with the research and publication of this worthwhile bird atlas.



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The mission of the Avian Demography Unit, a research unit in the Department of Statistical Sciences at the University of Cape Town, is to contribute to the improved understanding of bird populations, and thus advance their conservation. One of the ways in which the Avian Demography Unit achieves this mission is through large-scale projects, such as the Southern African Bird Atlas Project. The Mozambique Bird Atlas Project continues this initiative, and extends the area for which detailed information on bird distributions is available.







