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that's why ...*

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MOZAMBIQUE

is an ornithologist's paradise

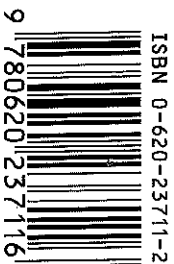
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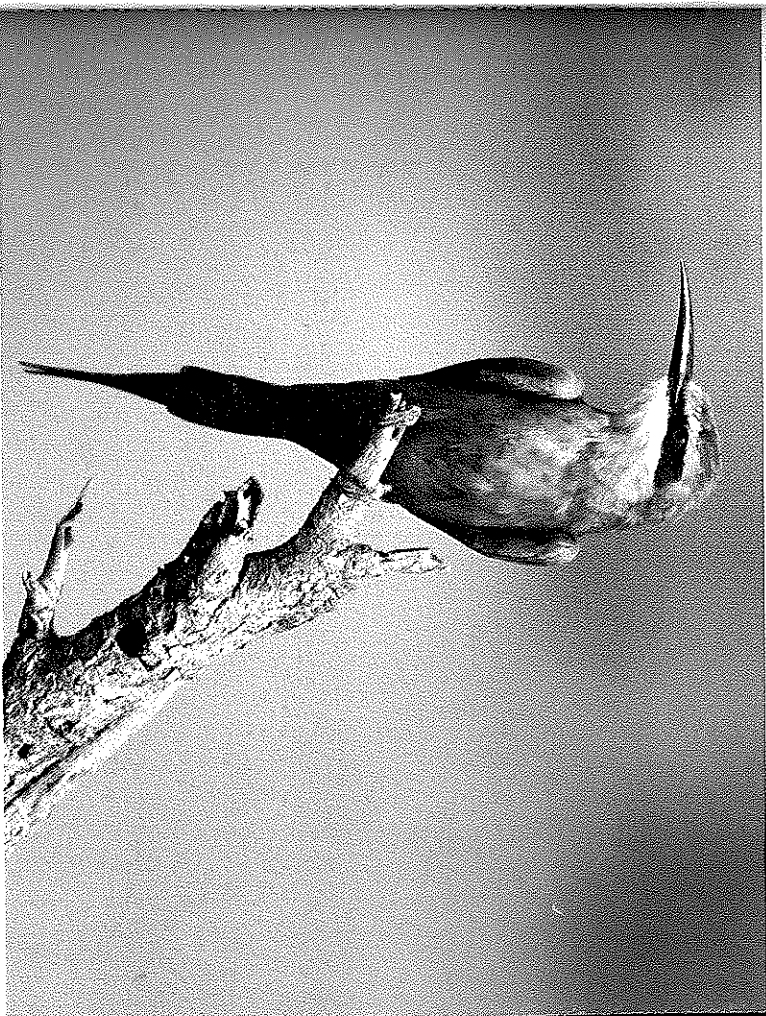
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 **Mondi BLSA Guide 22**
Birds of Inhaca Island,
Mozambique



W.F. de Boer and C.M. Bento


BirdLife
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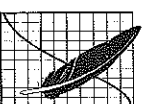
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Birds of Inhaca Island, Mozambique



W.F. de Boer and C.M. Bento

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Contents

Introduction	1
Acknowledgements	1
Study area	2
Methods	8
Species descriptions	10
Unconfirmed sightings	49
Discussion	51
References	58
Appendix 1: Seasonal fluctuations	60
Appendix 2: Habitat preferences	64
Appendix 3: Red Data Book species	68
Appendix 4: Checklist of English and Portuguese bird names	69
Appendix 5: Mozambique Bird Atlas Project checklist	76

Introduction

Inhaca Island is one of the southernmost islands on the eastern African coast. The island covers 40 km² and has a wide variety of bird species, which makes it a paradise for birdwatchers. The marshes, mangroves, dense dune forests and littoral areas provide habitats for many species of migrants from both the Palearctic region and the African continent. Typical birds include the Mangrove Kingfisher, Crab Plover, Greater Flamingo and the Sooty Falcon. Together with

the beautiful sandy beaches, coconut palms and coral reefs, it is a place never to forget.

This edition of *BLSA Guides* is based on extensive research carried out by the Department of Biological Sciences at the Eduardo Mondlane University between 1993 and 1996. These observations, together with data from the 1960s to 1990s when fellow birdwatchers were also attracted to this island in the Indian Ocean, are summarized here.

Acknowledgements

The fieldwork has been carried at the Department of Biological Sciences within the framework of the DEIBI project, a development project conducted in cooperation with the State University of Groningen in Holland. The work could not have been done without the help of the staff of the Marine Biological Station on Inhaca and the Department of Biological Sciences. We wish to thank Domingos Gove, Francisco Mapanga

and John Hatton for their help. Vincent Parker, David Allan, Gordon Holtshausen, Ellen Vos, Merlijn van Weert, Gwen van Boven and Jelmer van Belle kindly provided their Inhaca bird observations. We especially thank Vincent Parker and David Allan, who thoroughly scrutinized the text and helped with their constructive criticism. Paul Dutton and Brendan Ryan provided photographs

Study area

Kalk (1995a) provided detailed information on the island, and only a brief overview of its general characteristics is given here. Inhaca Island is situated 35 km east of Maputo, the capital of Mozambique. It has the Indian Ocean on the east coast, Maputo Bay on the west coast and a narrow strait at the southern edge of the island, which separates Inhaca from the Machangulo Peninsula (Fig. 1). The airport, east of the hotel, is bounded by mangroves and freshwater swamps (Fig. 2). Three sand roads radiate from the hotel, one leading to the lighthouse in the north, the second to Ponta Torres, the southernmost point, and the last to the Marine Biological Station (MBS) and Nhaguene on the west shore in the south. The semi-diurnal tidal range is 3.9 metres (spring tide), and an area of 52 km² of tidal flats adjacent to the island is exposed during low tides. These flats are partly covered by seagrass beds and are exploited by both numerous waders and the local population (De Boer & Longman 1997).

The island was separated from the mainland when the sea-level rose several thousand years ago. The geomorphology is characterized by underlying calcareous sandstone formations with a covering of sandsoils (Kalk 1995a). The east shore is composed of wind-blown forested sand dunes, with the highest point of Inhaca, the Monte Inhaca, at 115 m. On the west side of the island a red cliff (Barreira Vermelha) of sandstones with aeolian and marine deposits occurs.

Average rainfall is 800 mm per year, with the heaviest rain in January and February (based on 30 years of discontinuous data between 1955 and 1993 at Inhaca Marine

Biological Station). The average temperature is 25°C (Kalk 1995a) and two seasons can be distinguished: a warmer rainy season from November to April and a cooler, dry season from May to September (see also Lopes 1973)

The vegetation is described and classified by Hatton & Couto (1992) and De Koning & Balkwill (1995). We use six different habitat types (Fig. 3), based partly on the above-mentioned authors:

LITTORAL ZONE

The littoral zone includes the beaches and intertidal area surrounding the island. On the west coast between the hotel and Ponta Raza it comprises sheltered shores: sandflats and associated seagrass communities are exposed during low tides. The sandbanks of Ponta Raza are known for their roosting waders and terns. The east coast, between the lighthouse and Ponta Torres, is characterized by a steep ocean beach with a strong surf zone, currents and sea winds. The northern area between the lighthouse and the hotel is more sheltered, with shallow muddy sandflats with seagrass beds. This is also the area with the highest human pressure and where most of the fishing boats can be found. The southern coast is the most diverse and it comprises a shallow bay, the Saco. This is the area to visit if one wishes to see terns, flamingoes and Palearctic waders. The rocky coasts at Ponta Pundume are difficult to reach; the one near Ponta Torres which hosts roosting waders at high tide can be reached relatively easily by walking during low tide through the Saco.

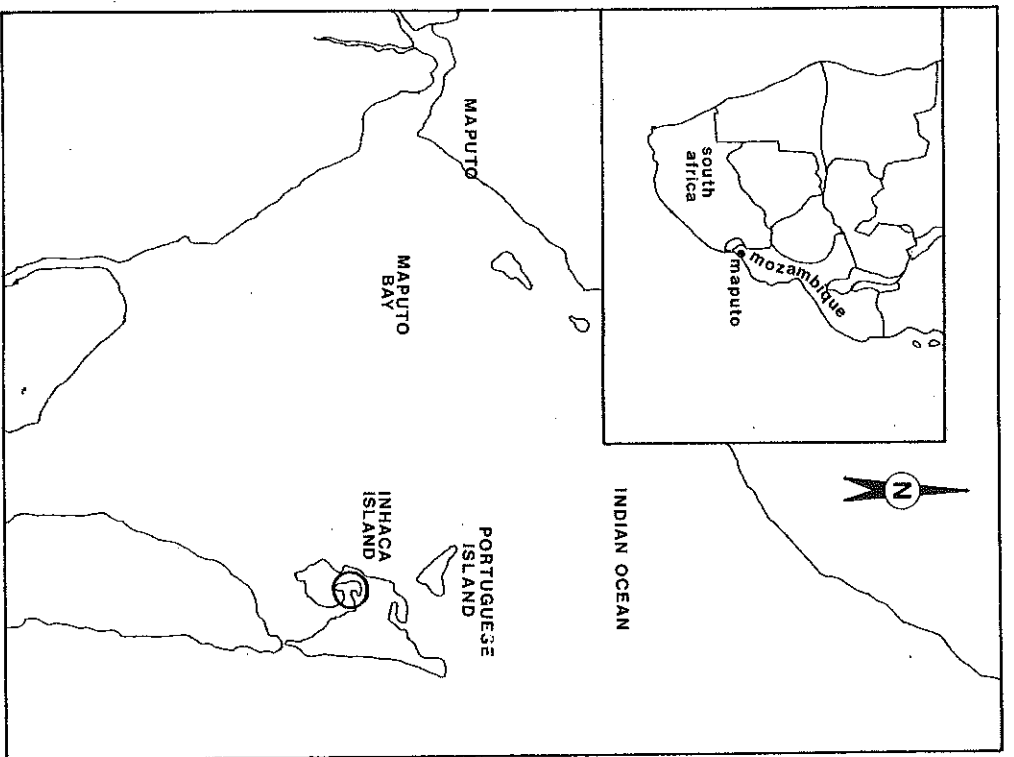


Fig. 1. The location of Inhaca Island in southern Africa.

MANGROVES

Two large mangrove forests are found on Inhaca. The first occurs near the airport (the northern mudflats) and the second fringes the Saco. A third smaller mangrove area can be found at Ponta Raza. Small canals penetrate the mangroves, but heavy clay soils

and the stilt roots make access difficult, and one should take care walking through these dense green forests on the incoming tide. Five different tree species occur in the mangrove forests: *Avicennia marina*, with its pencil roots, is found at the landward edge of the mangrove forests, while *Ceriops tagal*, with large stilt roots, and *Bruguiera*

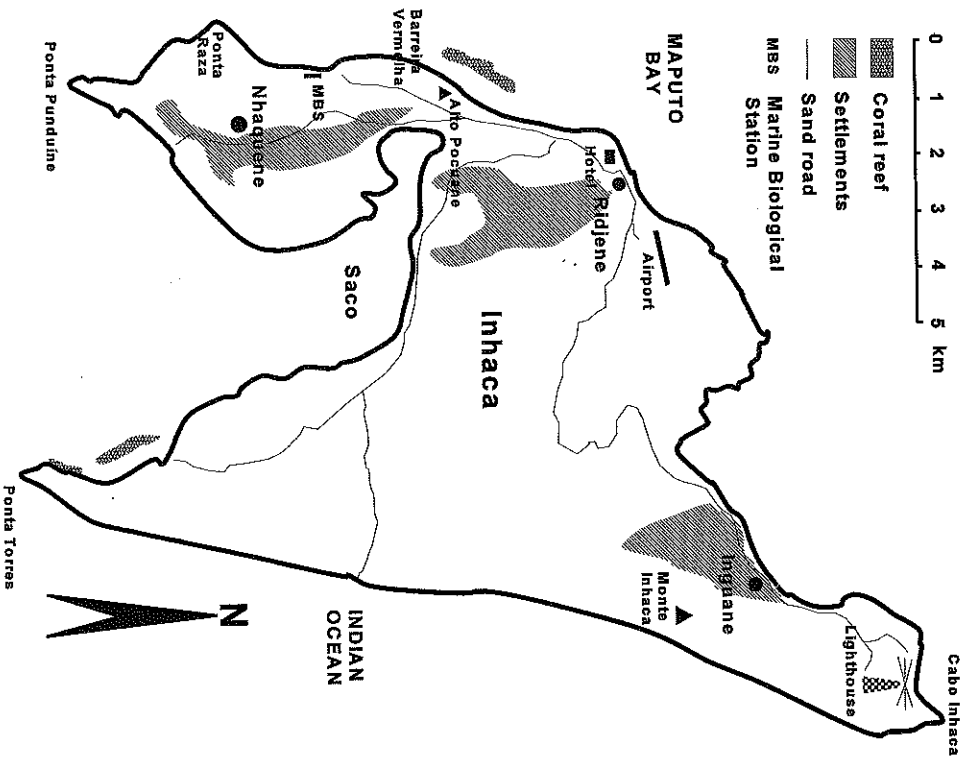


Fig. 2. Inhaca Island and its main features.

Symmorhiza dominate the interior of the forests. *Rhizophora mucronata* is common at the margins of the interior canals. *Lumnitzera racemosa* also occurs but is the rarest of the five. At the extreme landward edge of the mangrove forests, high salinity restricts plant growth and only dwarf *Avicennia* and halophytes are found. The mangroves in the

Saco are the most spectacular; this is the place to look for Mangrove Kingfisher, Sooty Falcon and other rare birds.

SWAMPS

According to De Koning & Balkwill (1995), freshwater swamps covered almost one fifth

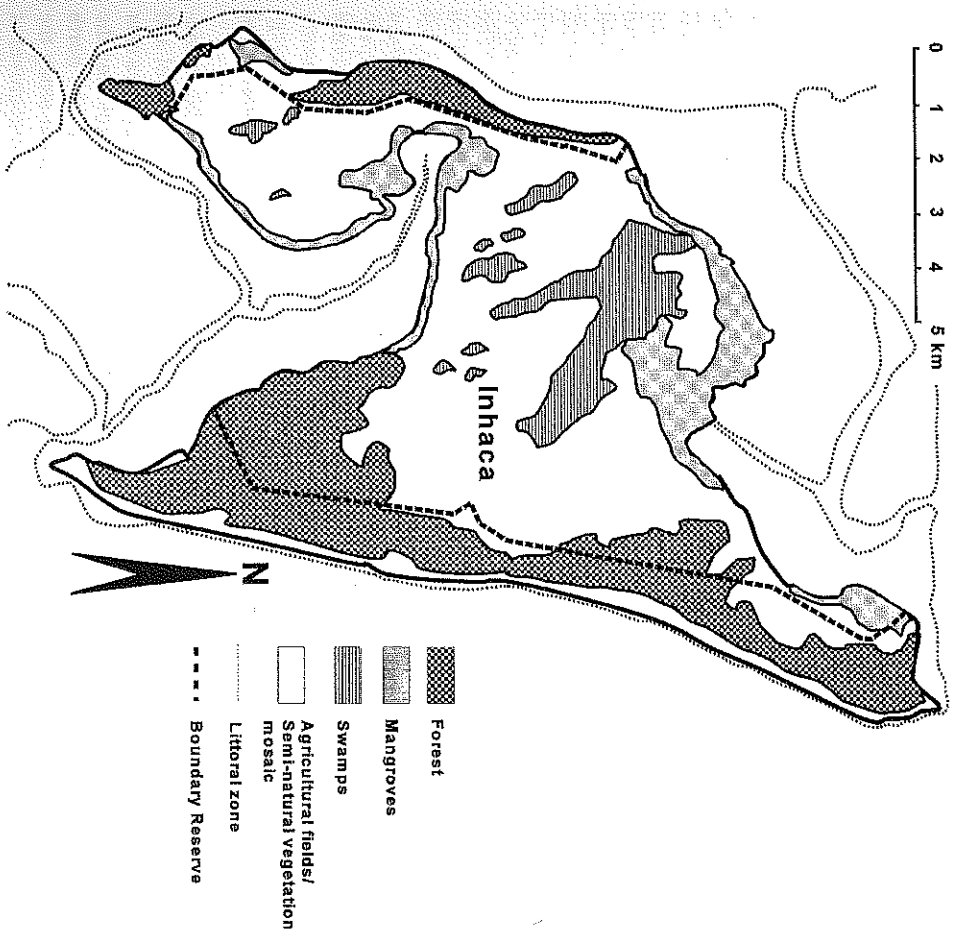


Fig. 3. The six habitat types on the island.

of the island at the beginning of this century. Today however, the area is much smaller, mainly because of drainage due to agriculture. The swamps are mostly composed of reedbeds, with seasonally inundated waterbodies and no woody cover. The fringes are used for small-scale farming. The vegetation is dominated by common reeds *Phragmites*

australis, bulrush *Typha latifolia* and papyrus *Cyperus papyrus*. The large swamps near the airport, which experience saline influences from the nearby mangroves, are always a rewarding place for birdwatching; the swamps at Nhaquene are known for their weavers and widowbirds.

FOREST

Two large tracts of forest are found on the western and eastern dune ridges of the island: one from Ponta Torres to the lighthouse, the second from the Marine Biological Station (MBS) to the hotel area. Both were proclaimed nature reserves in 1965 and fall under the protection and management of the MBS.

Some of the areas bordering the forest have previously been under cultivation, but have been included in the reserve since 1976 and are now regenerating (Campbell *et al.* 1988). In the 1940s to 1960s the forest suffered from increasing slash-and-burn agriculture, and hence deforestation. This was partly brought to a halt in the 1970s by the proclamation and control of the reserves. Since then, regeneration has taken place and the borders of these protected areas are now characterized by old agricultural fields in different stages of succession. The reserves are open to the public and birdwatching is rewarding, although one should take care of snakes. Preferred birding areas include the dense forest around Ponta Torres, the area surrounding the lighthouse and the forest on top of the Barreira Vermelha.

The forests are very dense and access is somewhat difficult. Forests are the most diverse in terms of species composition of all the habitats on the island. Orchids, ferns, parasitic and epiphytic plants are common. The woody layer is dominated by *Euclea natalensis*, *Hymenocardia ulmoides*, *Apodytes dimidiata*, *Mimnosops cfra*, *Psidrax locuples*, *Eugenia capensis* and *Xilotheca kraussiana* (Barbosa 1995; Scarlett 1985).

AGRICULTURAL FIELDS

Around the human settlements agricultural fields are common. Fields are prepared by traditional slash-and-burn methods, with maize being the most important crop. Additional crops include rice, sweet potatoes,

cassava, sorghum, and beans. Fruit trees can be found around the settlements: cashewnut, mango trees and pawpaw being the most important.

SEMI-NATURAL VEGETATION

The semi-natural vegetation is a mosaic of different patches of fallow lands in various stages of development, concentrated around the areas with human occupation. It also comprises small bushes, regenerating forest and scattered (alien) fruit trees. De Koning & Balkwill (1995) classified the area as a Parkland, although they included the agricultural fields in the same category. The shrub *Helichrysum kraussii* is dominant on the regenerating fallow lands. The most important tree species include *Strychnos spinosa*, *Euclea natalensis*, *Eugenia capensis* and *Mimnosops cfra*. This relatively open area, with a good herb layer, is mostly used for goat grazing. The semi-natural vegetation close to the dense forests offers good opportunities for birdwatching.

Two different bird walks can be considered. The first one starts at the hotel and crosses the swamp and agricultural area near the airport to the lighthouse, exploring the dune forest, along the beach to the north point and returning to the hotel along the intertidal area in front of the mangroves at low tide. The second takes at least two days. It goes from the hotel to the Saco and should only be attempted at low tide. The Saco mangroves and mudflats offer ample opportunities for birdwatchers. One should follow the east side of the bay until Ponta Torres where camping is allowed. Roosting waders during high tide and the birds in the surrounding forest are rewarding. Returning the next day or hiking along the beach to the lighthouse area can be considered.

The wild fauna include Bush Pigs *Potamochoerus porcus*, snakes, lizards, mice and, on rare occasions, the Water Mongoose *Atilax paludinosus* can be seen. The marine

fauna include two dolphin species, the Bottlenose *Tursiops truncatus* and Humpback dolphins *Sousa chinensis*. The Dugong *Dugong dugon* is another rare visitor, as is the Cape Fur Seal *Arctocephalus pusillus*. It can be seen with luck in the shallow waters surrounding the island. Sometimes Humpback Whales *Megaptera novaeangliae* are seen from the beach on the east coast. Three coral reefs can be found around Inhaca: at Ponta Torres, opposite the Barreira Vermelha and Alto Pocuane, and in the lagoon at Portuguese Island (Fig. 2). The marine invertebrate fauna of Inhaca are well described (Kalk 1995b), insects have been catalogued by Ormel (1995), while reptiles, amphibians and mammals have been described by Broadley & Kalk (1995).

The human local population is estimated at 5000 inhabitants, most of them living near the hotel, but also in Inguanne and Nhaquene

(see also Lopes 1991). The several thousand refugees who stayed on the island during the civil war in the late 1980s and the beginning of the 1990s have mostly returned to the mainland. The sandy soils are of low fertility and the fallow period does not allow for the recuperation of the soil nutrients (Harton 1995). Agricultural production is therefore low and hence the local fisheries are of vital importance. This is mostly practised by men with nets and lines from boats or from the sandy beaches along the coast. Women and children can be found in large numbers on the intertidal flats during low tides searching for crabs and shellfish (De Boer & Longa-mane 1996). An estimated 1500 goats occur on the island. Other domestic livestock include pigs and chickens. More details about the local economy can be found in Anon (1990).

Methods

Several methods have been used to describe the avifauna, the most important being the

Timed Species Count (TSC) (Pomeroy & Tengeho 1986). Two different sample stations were chosen in each of the six different habitats. At each station twelve TSCs were conducted, one for each month starting in June 1994. A TSC consists essentially of a chronologically ordered species list observed within a period of one hour. The index 'B' of relative abundance is calculated using abundance scores and the number of times a bird species was recorded during the TSC. The cumulative number of birds per species was also noted (trying to avoid double counts) and we used this measure to illustrate abundance and seasonal fluctuation (Appendix 1). The monthly total observations per species (2 stations \times 6 habitats = 12 TSCs) were used to illustrate seasonal fluctuations per month. This corresponds to 12 hours of observation in six different habitats, the maximum a birdwatcher could complete during a day.

The TSC data also allowed us to estimate habitat preferences (results in Appendix 2). The average number of birds was calculated per habitat for the 24 TSCs taken in two different sampling stations. These averages were used to calculate the percentage of observed birds of a certain species per habitat (modified from Rozenzweig 1981):

$$Px = [Hx / (H1 + H2 + H3 + H4 + H5 + H6)] \times 100$$

where:

Px = percentage of birds observed in habitat x

Hx = total number of birds observed in habitat x

H1 . . . H6 = total numbers of birds in the six different habitats

Incidental observations were done in addition to these TSCs, the so-called *ad libitum* or free observations, from July 1993 to mid-1996, normally during a four-day period each month when other biological work was carried out in the area. The free observations are strongly biased for the area around the Marine Biological Station on Inhaca, the main facility for researchers and students on the island, and the Saco where most of the other research has been carried out. The observations also include sightings from the ferryboat to and from Inhaca. Besides these, three counts were made of Inhaca's shorebirds during a seven-day trip along the coast of the island, in January of 1995, 1996 and 1997. It should be noted that free observation were not used when determining seasonal fluctuations or habitat preferences. Only TSCs were used in this respect, explaining why some species, although recorded on Inhaca, are not shown in the appendices.

The available literature and unpublished notes were used to include the sightings of rarer species. Copies of the 'grey' literature have been deposited at the Avian Demography Unit of the University of Cape Town. In addition, the birds' skins in the museum of the Marine Biological Station, as well as the ones at the Natural History Museum in Maputo (the latter marked as NHM), are referred to in the species descriptions. The majority of the museum birds were collected by A.A. Da Rosa Pinto in the 1950s and 1960s with some earlier (1936) and later (1981) specimens collected by other ornithologists.

The abundance of the birds follows the hierarchical order of abundant, common, frequent, infrequent, uncommon, scarce, rare and vagrant. Where applicable, mention has been made of the migratory status of the bird, using intra-African migrant, Palearctic migrant, resident and visitor (with irregular movements) as the main categories.

To analyse the bird communities in different habitats a special list was prepared which included all listed bird species recorded up to December 1996, together with codes for their abundance, status, feeding group, habitat and breeding records. This list was used in the final analyses, the results of which are described in the discussion. The abundance, status and habitat of the birds were directly taken from the our field data. Concerning feeding group, birds were classified in several different categories: preda-

tors, insectivores, frugivores, granivores, piscivores and birds with a mixed diet, and waterbirds feeding on marine invertebrates, etc. When in doubt, Maclean (1993) was consulted. In the analyses all resident birds were assumed to breed on the island.

A separate analysis was made to investigate the similarity in bird community structure between the different habitats. We used a cluster analyses based on presence/absence data of birds omitting the rarer species (with an average linkage within groups with cosine as a measure for distance) (Norusis 1990).

Gibbon (1991), Newman (1993), Sinclair *et al* (1993) and Maclean (1993) were used as identification references and 10 \times Zeiss binoculars and a Kowa 20 \times and Swarovski 20-60 \times telescope were employed in the field.

Species descriptions

3 Jackass Penguin *Spheniscus demersus*
Brooke *et al.* (1981) and Berruti & Sinclair (1983).

A vagrant, only appearing on the list because of the capture of two birds in 1918 which were offered to the museum in Maputo (Da Rosa Pinto 1958). They still occur in the region, as confirmed by a sighting of a pet-guin caught in nets by fishermen at the Limpopo River mouth in November 1994 (J. Gouws pers. comm.).

10 Wandering Albatross *Diomedea exulans*

A vagrant, seen once in the open ocean near Ponta Torres in June 1994; the first record for Inhaca.

11 Shy Albatross *Diomedea cauta*

Mentioned for the coastal waters of Mozambique by Brooke *et al.* (1981) and Berruti & Sinclair (1983); see also Sinclair 1979.

12 Blackbrowed Albatross *Diomedea melanophris*

A vagrant to the open ocean waters with a generally more southern distribution. Mentioned by Clancey (1971) as observed in Maputo Bay and in the Mozambique Channel; no other sightings.

14 Yellow-nosed Albatross *Diomedea chlororhynchos*

Stated by Viteery (1978) to occur at Inhaca based on an observation of two birds in July 1976; also mentioned by Clancey (1971),

Brooke *et al.* (1981) and Berruti & Sinclair (1983).

17 Southern Giant Petrel *Macronectes giganteus*

Its presence is based on its appearance on the list of Da Rosa Pinto (1958).

21 Pintado Petrel *Daption capense*

A rare migrant seen at the Baixo Danai twice, in March and June 1995, from a boat passing the eastern shore of Inhaca. Mentioned by Da Rosa Pinto (1958) as frequently seen accompanying the pilot boats which anchor north of Portuguese Island. Reported to come ashore to feed on ghost crabs (Brooke *et al.* 1981 cited in Feijen & Feijen 1995a).

23 Greatwinged Petrel *Pterodroma brevirostris*

Listed by Berruti & Sinclair (1983) as occurring around Inhaca.

24 Softplumaged Petrel *Pterodroma mollis*

A vagrant which was listed by Clancey (1971) on the basis of a sighting by W. J. Lawson in April 1962.

27 Kerguelen Petrel *Pterodroma bulweria*

A bird (named as *Bulweria brevirostris*) was found dead on the beach on the east coast of Inhaca by Herdam (1994) in August

1980; no further records.

29 Broadbilled Prion *Pachyptila vittata*

The only records are from Feijen & Feijen (1985), who mentioned the finding of a dead bird at the Barreira Vermelha in August 1979, and from Herdam *et al.* (1981) who found a dead bird in 1990 on the east coast near Ponta Torres. Clancey (1971) sighted it in Maputo Bay during a wreck in 1954.

32 Whitechinned Petrel *Procellaria aequinoctialis*

Viteery (1978) mentioned the observation of one Whitechinned Petrel in Maputo Bay close to Inhaca in September 1976. Feijen & Feijen (1985) found a dead bird in July 1979 on the beach of Ponta Pundune. Also recorded for Inhaca and its surrounding waters by Clancey (1971), Brooke *et al.* (1981) and Berruti & Sinclair (1983).

36 Fleshfooted Shearwater *Puffinus carneipes*

A vagrant seen in October 1994 on the open ocean on the east side of the island; the only record of the species for Mozambique.

41 Wedgetailed Shearwater *Puffinus pacificus*

A vagrant seen after a cyclone around Inhaca by Berruti & Sinclair (1983).

42 European Storm Petrel *Hydrobates pelagicus*

A rare visitor to the coastal waters listed by Clancey (1971), who mentioned that it is captured aboard Inhaca's fishing vessels at night.

44 Wilson's Storm Petrel *Oceanites oceanicus*

Only mentioned by Nilsson (1990a) and Berruti & Sinclair (1983) as occurring on Inhaca. Probably a vagrant, as Inhaca is at the northernmost limit of distribution.

46 Blackbellied Storm Petrel *Fregatta tropica*

The Blackbellied Storm Petrel was seen once; it was easily identified by its white belly; white underwings and the typical black line through the centre of the belly. It took off and settled on the water with long hanging feet in January 1997 in Maputo Bay, close to Inhaca. It is the only observation of this species for Mozambique.

47 Redtailed Tropicbird *Phaeton rubricauda*

This rare vagrant was observed by Berruti & Sinclair (1983) after a cyclone.

48 Whitetailed Tropicbird *Phaeton lepturus*

This vagrant of the open ocean was seen once by Berruti & Sinclair (1983) after the same cyclone.

50 Pinkbacked Pelican *Pelecanus rufescens*

A common resident of Inhaca. Seen fishing especially on the Maputo Bay side of the island or roosting in the mangroves of the Saco, together with Little Egrets and Grey Herons. Also seen resting at the sandbanks near Ponta Raza. In summer they can be seen soaring over the island. TSCs range from one to 15; numbers in the rest of the bay and around Maputo are higher.

53 Cape Gannet *Morus capensis*

An uncommon visitor to Inhaca's waters which can be observed on the south and west sides of the island, near Ponta Torres and Ponta Raza, especially at high tides. The majority of the birds are immatures, sometimes in small groups of up to four. Forty were seen on one day in November 1976 by Brooke *et al.* (1981). Not only a winter visitor as mentioned by Brooke & Sinclair (1978), but present all year with irregular sightings. A bird ringed on Bird Island, Algoa Bay in 1954 was recovered at Bela Vista in 1965 (Clancey 1971).

54 Australian Gannet *Morus serrator*

A female bird was captured alive on Inhaca (date unrecorded) and taken to the Maputo Zoo. The bird died on 14 September 1962 and is now a study skin in the collection of the Natural History Museum in Maputo.

55 Whitebreasted Cormorant *Phalacrocorax carbo*

A common resident but seen most often from August to February. They roost in mangrove forests and dry their wings on the beaches or on fishing poles. They steal fish from standing and drifting nets. Seen alone or in small groups. A group of six White-breasted Cormorant nested together with Grey and Blackheaded Herons in the *Casuarina* trees near the hotel in March 1996; fledglings were also seen in October 1996 (contrary to the nonbreeding status mentioned in Brooke & Sinclair 1978 and Dowsett & Dowsett-Lemaire 1993).

56 Cape Cormorant *Phalacrocorax capensis*

A common migrant species, mostly seen during winter; largest numbers normally in July. Can be seen in large groups of up to

300 while fishing. Fly in long lines along the coast of the island. Found in large flocks hunting for fish in their characteristic fashion, where birds dive and the fish are driven in front of them; birds at the back of the flock fly to the front, diving again. The people of the island hunt them in shallow waters near the northernmost limit of the coral reef at Ponta Torres. In August 1993, people were observed throwing sticks at a group of hundreds of birds, diving over a shoal of fish; more than a hundred heads were found in lying on the beach at Ponta Torres.

58 Reed Cormorant *Phalacrocorax africanus*

A common resident, seen often throughout the year in mangrove channels. Associates with the Whitebreasted Cormorant. Groups of up to 13 birds have been seen. Immatures of this species are easily confused with the immatures of the Cape Cormorant. TSC numbers equally divided between littoral and mangroves. In the museum collections at the MBS and Maputo.

60 Darter *Anhinga melanogaster*

A rare visitor to Inhaca's swamps. In October 1994 a group of 24 birds was seen flying from the freshwater swamps near the airport in the direction of the northern mangroves. Not recorded on other bird lists for Inhaca Island.

61 Greater Frigatebird *Fregata minor*

After a cyclone, one was observed by Berruti & Sinclair (1983) around Inhaca. Also observed by the authors from the ferryboat in Maputo Bay after a day of heavy storms in October 1994. One bird was seen close to Ponta Pundúne in January 1997, where it followed a boat and came close inshore for easy identification.

922 Lesser Frigatebird *Fregata ariel*

A first-stage immature bird was seen, between the lighthouse and the hotel, harassing terns close to a fishing boat in January 1997 (Allan & Holtshausen 1997; pers. obs.).

62 Grey Heron *Ardea cinerea*

A common resident of Inhaca. Can be seen hunting singly for fish and invertebrates in the intertidal zone. Once seen catching a metre-long eel at the Saco; also seen fishing in the Saco 'stealing' fish from fishing nets. Nest in *Casuarina equisetifolia* trees at the MBS and near the hotel in small colonies with several nests per tree. Herdam *et al.* (1981) mentioned the use of *Casuarina*, coconut and *Ficus sycamorus* trees for nesting. Noisy, even at night. Eggs robbed and eaten by House Crows. Surprisingly, several authors - Macnae & Kalk (1969); Clancey (1971) - mentioned no breeding records for Inhaca or Mozambique as a whole. TSCs between four and 32 with records for every month.

63 Blackheaded Heron *Ardea melanocephala*

An uncommon breeding resident. Prefers the freshwater swamps for hunting (e.g. for frogs), occurring in 79% of TSC observations. Nests together with Grey Herons at the MBS and the hotel. Vittery (1978) observed more than 50 nests on Inhaca, which is far more than the numbers seen today.

64 Goliath Heron *Ardea goliath*

Listed by Macnae & Kalk (1969) as observed on Inhaca, but no confirmed sightings in recent years.

66 Great White Egret *Egretta alba*

Not seen by the authors but listed as occurring on Inhaca by Brooke & Tuer (1968) in

a leeward lagoon; also mentioned by Oliveira (1996).

67 Little Egret *Egretta garzetta*

An abundant resident nesting bird, seen everywhere in shallow saltwater or in mangroves. Roosts in groups of more than 100 birds in the *Avicennia marina* trees in the Saco or in mangroves opposite Portuguese Island. Associated sometimes at low water with feeding Greater Flamingoes at the mudflats of the Saco, dashing for fish and shrimps disturbed by the feeding activity of the flamingoes. Especially active fisher at outgoing tides, already roosting when the tides come in. Can be seen jumping and flying after fish in the Saco when the water is higher and stirring the mud with their feet when the water is lower. The most common egret of Inhaca, especially between 1993 and 1995 (maximum record of 130 in the mangrove trees at the Saco), but remarkably low numbers in the Saco in the summer of 1995-96.

68 Yellowbilled Egret *Egretta intermedia*

A rare visitor to Inhaca's freshwater swamps; several sightings from the swamp area close to the airport.

71 Cattle Egret *Bubulcus ibis*

A common heron of Inhaca, seen mostly near settlements in association with goats where it forages on insects and around the swamps near the airport. Highest preference for swamps (94%). Occasionally seen at the intertidal area where it hunts for small invertebrates. Most abundant in winter.

74 Greenbacked Heron *Butorides striatus*

A very common breeding resident of Inhaca;

typically of the shorelines, the intertidal area and the mangrove forests; almost absent from the exposed or sandy beaches. Hunts for shrimps, crabs, fishes and other invertebrates while standing motionless for minutes around small pools or in muddy areas. Da Rosa Pinto (1958) found that the stomach contents consisted of crustacea, insects and locusts. Easily overlooked because of its cryptic plumage and behaviour. Roosts in mangrove forests but can also be found on the rocky shores on the southern part of Inhaca. Normally solitary, occasionally in pairs. Brownish immatures are commonly seen. Aggressive encounters between adults or between adults and immatures are frequent when foraging. One bird, caught in the Saco in 1957, is part of the museum collection; another is in the Maputo Museum.

76 Blackcrowned Night Heron *Nycticorax nycticorax*

Seen once flying from Maputo Bay to the *Casuarina* trees near the MBS in January 1996; where it stayed for several hours in the top of the tree where it roosted at sundown. This is the only record for Inhaca.

79 Dwarf Bittern *Ixobrychus sturnii*

Seen feeding late in the afternoon on 21 February 1967 (Brooke & Tuer 1968); no other observations.

81 Hamerkop *Scopus umbretta*

A rare visitor to the intertidal area where it was seen in summer on several occasions at low tides. Only observations of solitary birds have been made. According to the local population it nests on the island; they say that its nests contain human and animal bones (Impacato 1997). The nest material is used by traditional healers as a vaccine against witchcraft.

83 White Stork *Ciconia ciconia*

A group of six White Storks was seen in January 1994 while flying high to the south.

85 Abdim's Stork *Ciconia abdimii*

A rare visitor seen only twice in January and February 1996 flying above the island; the first observation of two birds at the MBS, the last of one bird. Never recorded previously on Inhaca.

86 Woollynecked Stork *Ciconia episcopus*

Woollynecked Storks are seen at the northern intertidal area of Inhaca but (less numerous) also in the Saco, where they forage on the seagrass fields at low tides, but they are more abundant in the swamp area around the airport. It is an uncommon resident of Inhaca, although more numerous in winter (April–July). Can also be seen soaring in thermals around the island; no breeding recorded.

88 Saddlebilled Stork *Ephippiorhynchus senegalensis*

Occurs on the mainland; Nilsson (1990a) listed one Saddlebilled Stork on Portuguese Island in 1989.

90 Yellowbilled Stork *Mycteria ibis*

An uncommon resident in the northern Sangala area around the littoral and mangrove zones, occasionally seen in the Saco or when flying. Mostly seen in small groups of up to seven birds. Forages in the intertidal area. More abundant in summer; population probably expanding because it was not recorded earlier. Maximum TSC of 13. In other recent lists, only mentioned by Oliveira (1996).

91 Sacred Ibis *Threskiornis aethiopicus*

The Sacred Ibis is a winter visitor to Inhaca with no observations between October and February. It forages in the intertidal area with Little Egrets. More numerous in the Sangala area; some observation from the freshwater swamps. Seen in the Saco more often in winter, perhaps because of high Whimbrel densities there in summer. TSCs range from one to 50.

94 Hadeda Ibis *Bostrychia hagedash*

A common resident of Inhaca's terrestrial vegetation and seen in every habitat type; probably also nesting. More often heard than seen. Normally silent but especially noisy when disturbed or flying in groups. Forages in small groups of two to five birds in forest and agricultural fields, sometimes resting on branches of dead trees. Stomach contents mentioned by Da Rosa Pinto (1958) as slugs and insects. Reported breeding by Machacae & Kalk (1969) for Inhaca. Specimens are in the museums of the MBS and NHM.

96 Greater Flamingo *Phoenicopterus ruber*

An abundant nonbreeding resident in Inhaca's protected bays where it forages at low and high tides. Forages by movements with the head upside down in water describing circles while trampling and disturbing the sediment, leaving characteristic circular marks on the mudflats. At low tide also seen picking up smaller *Dotilla fenestrata* crabs in the sandier areas or stirring mud pools with their feet. Little Egrets associate with them when they feed in mud pools. Rests in shallow water in smaller groups of around 50–100 birds or on sandbanks; total population around 1000, equally divided between the southern and northern bay. Numbers probably increasing. Seen from January 1994 to

June 1995, but disappeared completely from mid-February to August 1996. This could be explained by the heavy rains around the bay in the summer of 1996 and changes in salinity (V. Parker pers. comm.) or by migration to their breeding grounds; several immatures were spotted in October 1996.

97 Lesser Flamingo *Phoeniconaias minor*

A rare visitor to Inhaca's intertidal areas; one individual seen on several occasions together with Greater Flamingoes in the Saco. Probably individuals from the larger population around Maputo (e.g. salt pans at Matola) or from the salty lakes of the Maputo Elephant Reserve.

108 Redbilled Teal *Anas erythrorhynchos*

A group of 12 Redbilled Teals was seen in the mangroves near Coconut Village in June 1994.

116 Spurwinged Goose *Plectropterus gambensis*

A rare visitor, one male and two females were feeding close to the rice plantation in the freshwater swamps near the airport in July 1994. Also seen in February 1995 and flying over the sea in the Saco in summer of 1995–96.

118 Secretarybird *Sagittarius ser-pentarius*

A bird in poor condition was found in July 1979 by the staff of the MBS (Feijen & Feijen 1985).

126 Yellowbilled Kite *Milvus migrans parasitus*

A common intra-African migrant to all habi-

tats; not present between May and July. Also seen at low tide on the intertidal area where it disturbs small sandpipers, plovers, and Whimbrels; no actual capture of smaller birds was ever observed. Mostly seen solitarily, but sometimes in larger groups of c.15 birds when feeding on emerging termites or other insects.

126 Black Kite *Milvus migrans migrans*

Clearly less abundant than the previous species; solitary individuals seen on several occasions in late summer near the MBS and lighthouse.

127 Blackshouldered Kite *Elanus caeruleus*

More abundant on the mainland than on Inhaca, where it was seen on several occasions near the MBS in agricultural fields.

128 Cuckoo Hawk *Aviceda cuculoides*

An immature seen once for 15 minutes in August 1995 while washing in the bird bath at the MBS and drying his feathers in a tree nearby.

134 Lesser Spotted Eagle *Aquila pomarina*

A vagrant; one individual was seen for an hour in January 1994 in the coconut forest near the lighthouse.

137 African Hawk Eagle *Hieraetus spilogaster*

A vagrant raptor of the dense forest of Inhaca, seen only once in January in the early morning near the MBS. An adult bird was seen flying, and was identified by the typical broad dark tail band and the clear white areas at the base of the primaries. Also a probable sighting mentioned by Vittery

(1978) in November/December 1977, observed by Oliveira (1996) in the semi-natural vegetation and seen by Allan & Holthausen (1997) in January 1997.

140 Martial Eagle *Polemaetus bellinotus*

Seen once while resting on the branches of a dead tree along the road between the MBS and the hotel, in January. Three birds were seen by Brooke & Tuer (1968) at the airstrip.

142 Brown Snake Eagle *Circus cinereus*

An uncommon resident of the open woodland patches, special on the eastern and northern side of the island; possibly breeds in the forests near the lighthouse. Immatures seen frequently; sometimes in pairs while soaring; noisy in summer when flying.

143 Blackbreasted Snake Eagle *Circus caetus gallicus*

A frequent resident raptor over all habitats of Inhaca, often in pairs; usually seen when in the air.

144 Southern Banded Snake Eagle *Circus fasciolatus*

The first records for Inhaca were between September and December 1996, where it was seen several times in forest around the MBS. It was observed easily with a telescope while perched in a tree 40 m from the observers; also seen in flight. Obvious features were its large head and thick neck, yellow cere, and pale yellow eyes and feet.

146 Bateleur *Terathopius ecaudatus*

Vagrants from the mainland could visit the island, because the bird is listed by Macnae

& Kalk (1969) as occurring on Inhaca, but no confirmation during this study.

148 African Fish Eagle *Haliaeetus vocifer*

An uncommon resident of Inhaca, breeds at Ponta Torres where immatures can be seen resting on the rocky outcrops or fishing alongside the beaches. An adult has been seen stealing fish from standing nets at low tide on the eastern shore of the Saco. Often heard when in pairs or small groups soaring above the island (and as such observed above atypical habitats); also known from Portuguese Island.

149 Steppe Buzzard *Buteo buteo*

A frequent summer Palearctic migrant to the open woodland around the lighthouse, seen perching and hovering in the wind above the dunes.

154 Lizard Buzzard *Kaupifalco monogrammicus*

A common resident of the forest around the swamps and in the agricultural area, more common at the end of the summer and early winter (February–July). Heard frequently when calling in pairs. Sombre and Black-eyed Bulbuls are easily alarmed when this bird is heard or seen.

157 Little Sparrowhawk *Accipiter minillius*

A female was observed for more than an hour in the forest surrounding the MBS in December 1995.

159 Little Banded Goshawk *Accipiter badius*

Vittery (1978) observed one in November 1976; occurrence on Inhaca confirmed in

January 1997 when a female was seen at the MBS.

160 African Goshawk *Accipiter tachiro*

A common resident of the forest of the island, seen frequently around the MBS where it hunts in the early morning or late afternoon; a difficult bird to get close to for identification. The bird is also listed by Clancey (1971) based on sightings by J. de V. Little. A bird caught in 1987 at the MBS is on exhibition at the museum.

161 Gabar Goshawk *Micronisus gabar*

Not recorded by the authors but seen twice in November 1995 in the forest at Ponta Torres by J. van Belle, G. van Boven and M. van Weert.

169 Gymnogene *Polyboroides typus*

An uncommon resident bird of Inhaca, seen around coconut trees and *Casuarina* trees with weaver nests, especially in the lighthouse area and around the MBS. The brownish immatures are also seen, sometimes together with adults. Robs eggs and young from weavers while hanging onto their nests.

170 Osprey *Pandion haliaetus*

An uncommon summer visitor to the shallow bays of Inhaca, normally seen singly. Fishes by soaring into the sky and diving. Fish are normally eaten at sandbanks or on net poles. Regularly seen at the Saco but also at the northern bay; rare on the ocean side, where it is sometimes seen eating fish at low tide on sandbanks. One winter record June 1996.

172 Lanner Falcon *Falco biarmicus*

A rare visitor to Inhaca, seen on several

occasions in March near the forest at Ponta Torres and Ponta Pundúne, and over fallow lands. Also listed for around Maputo by Nilsson (1990b)

175 Sooty Falcon *Falco concolor*

An uncommon summer nonbreeding migrant to the mangrove fringe and littoral zones. Often seen in the Saco, where adults hunt together with immatures. Disturbs smaller waders. Normally hunts from perches such as high, dead mangrove branches. Harassed often by House Crows, which use the same perches. Calls regularly. Also seen in trees near Inhacue Swamp. Vittery (1978) gave 6 November and 12 May as extreme dates.

177 Eleonora's Falcon *Falco eleonora*

The presence of Eleonora's Falcon in southern Africa was initially based on two observations from Inhaca: Vittery (1978) observed this falcon in February 1977 chasing a high-flying cisticola. Also listed by Berruti & Sinclair (1983).

179 Western Redfooted Falcon *Falco vespertinus*

A female was seen in January 1997 above the forest at the Barreira Vermelha in a flock of Eastern Redfooted Falcons and Yellow-billed Kites; this is the first record for Mozambique (Allan & Hollshausen 1997).

180 Eastern Redfooted Falcon *Falco amurensis*

Vittery (1978) made observations on several species of falcons and saw Eastern Red-footed Falcon several times on Inhaca between October and March. He also mentioned a group of three composed of a female with immatures. The species' presence on Inhaca was confirmed in January 1997,

when a group of six was seen together with a Western Redfooted Falcon and some kites at the Barreira Vermelha (Allan & Hollshausen 1997).

198 Rednecked Francolin *Francolinus afer*

A common resident of the fallow lands and agricultural fields of Inhaca; normally seen early in the morning. Eats maize cobs; hunted by the local population.

200 Common Quail *Coturnix coturnix*

This quail was several times recorded on Inhaca, seen in flight and running to grass for cover. A common resident of the fallow lands and near swamps. Only seen in winter with TSCs from two to 26 between March and July.

203 Helmeted Guineafowl *Numida meleagris*

Da Rosa Pinto (1958) did not find guineafowl on the island and mentioned hunting as a reason for their absence. Herdam *et al.* (1981) observed two birds south of the MBS in an agricultural field in January 1981. This species is now probably extinct on Inhaca because no subsequent observations have been made of this highly rated delicacy.

213 Black Crane *Amaurornis flavirostris*

An uncommon visitor to the freshwater swamps, only seen at the southern swamp near the MBS, where six individuals have been seen on several occasions in early summer. Calls frequently but is not easily seen. They use the reed beds for cover and this is probably the reason that they are not found in winter because the reeds are utilized for thatching by the local population. Occurrence not mentioned on other lists.

238 Blackbellied Korhaan *Eupodotis melanogaster*

A rare resident of Inhaca in the more grassy areas close to forest edges; seen more often in winter. Observations include sightings close to the MBS and a pair seen once at the swamp near the airport. Possibly a declining population because of hunting pressure.

243 European Oystercatcher *Haematopus ostralegus*

A rare vagrant, seen only in December 1996 when three were roosting at high tide in a group of other waders and terns on a sandbank between Portuguese Island and Inhaca; these birds were also seen flying. This is the first sighting for Inhaca.

244 African Black Oystercatcher *Haematopus moquini*

This rare vagrant was seen within 100 m of the three European Oystercatchers in December 1996 on the sandbanks between Portuguese Island and Inhaca. This totally black wader with its bright red legs, eye ring and bill was instantly recognized and identified. It has never been recorded before on the island and the observation is the northernmost sighting of this species at the eastern African coast (P.A.R. Hockey pers. comm.). It is recognized as a potentially threatened bird for Africa (Collar & Stuart 1985).

245 Ringed Plover *Charadrius hiaticula*

An infrequent summer Palearctic migrant in the intertidal area, mostly seen in the southern bay mixing with other waders, such as Curlew Sandpipers and Whitefronted Plovers. Prefers the sandier areas. Maximum observation of 24 birds in the Saco in De-

ember 1995; disappears completely in winter (May–October).

246 Whitefronted Plover *Charadrius marginatus*

A common breeding resident of the intertidal area and beaches of Inhaca. Equally abundant in summer and winter, with a high TSC in February 1994 of 112 birds roosting on the rocks near Ponta Torres. Especially seen on sandbanks and beaches, also on the east coast, not in large groups but mostly one to three birds; easily overlooked. Roosts on the rocky outcrops near Ponta Torres and at the sandbanks of Ponta Raza. Breeding was reported by Oliveira (1996).

248 Kittlitz's Plover *Charadrius pecuarius*

A rare summer visitor to the mudflats, occurring sparsely; on the eastern side of the Saco, a pair at Sangala and two birds roosting at Ponta Raza in March 1996. Also listed by Clancey (1971) and Nilsson (1988).

249 Threebanded Plover *Charadrius tricollaris*

An uncommon summer visitor to the intertidal area where it prefers the drier, sandier areas. One record is from the airport (Allan & Hollshausen 1997).

250 Mongolian Plover *Charadrius mongolus*

A rare summer migrant from the Palearctic to the sandflats of Inhaca, usually singly. Eight roosting birds seen on Ponta Torres in January 1995; also known from the isolated sandbank in the Saco, the interior of the Saco and the northern Bay; other sightings by different observers.

**251 Sand Plover *Charadrius leschen-
autilii***

A frequent summer Palearctic migrant to the sandier mudflats of the southern bay, also seen roosting at Ponta Raza; solitary or in small groups mixing with Grey Plovers, Terek and Curlew Sandpipers. More abundant in the summer of 1995-96 than the two years before.

254 Grey Plover *Pluvialis squatarola*

A very common nonbreeding summer migrant of the intertidal zone of Inhaca, where it eats polychaetes, crabs and shrimps; some birds overwinter; more abundant between September-April; birds moulting into breeding plumage seen from January onward. Immatures are common and are relatively more abundant in winter. Always seen close to Whimbrels and Curlew Sandpipers. Flocks of over 50 birds are frequently observed flying along the sheltered western coast of Inhaca with tide changes. Roosts on higher sandbanks with neap tides or on beaches and rocky shores at spring tides. Vittery (1978) saw 800 birds in late November. Specimens are in the museums of the MBS and Maputo.

262 Turnstone *Arenaria interpres*

A frequent migrant from the Palearctic; more numerous in summer, mostly seen alone or in small groups of up to about five birds on the drier, sandier flats of the intertidal zone. Most sightings from November to March, with few records in winter. Mainly found in the southern and northern bays but also on the west shore of the island where it searches for invertebrates under dead corals and stones. Also hunts for army crabs *Dorilla fenestrata* on the sandbanks where it can be seen running and dashing for crabs, when surrounded by hundreds of these crabs at low tide.

263 Terek Sandpiper *Xenus cinereus*

A common summer Palearctic migrant to the mudflats in the intertidal area. Mixes with Curlew Sandpipers; hunts in a characteristic posture with its head down and its bill forwards while running after crabs and shrimps. Feeds mostly along the water line of small pools or of the incoming and outgoing tides. More frequently seen in the Saco than elsewhere on the island. They are numerous between October to March, with a few birds present in winter, although there are no records from July. Vittery (1978) counted 300 in late November and more than 500 in February. Walner & Sinclair (1981) reported 3200 Terek Sandpipers in November 1976 on Inhaca, but such a high number has never been counted since.

264 Common Sandpiper *Tringa hypoleucos*

An infrequent Palearctic migrant in summer to the intertidal area, where it prefers the sandier zones alongside temporary channels. Also seen foraging between the pencil roots of the *Avicennia* mangroves, looking for small crabs and other invertebrates. Normally seen singly, bobbing its tail regularly. Disappears completely after April, first records from August.

266 Wood Sandpiper *Tringa glareola*

An infrequent summer visitor which can be observed in the Saco and on the intertidal area close to the lighthouse; maximum number of birds counted was 24 in March 1994.

267 Spotted Redshank *Tringa erythropus*

A rare Palearctic vagrant observed once in summer by Berruti & Sinclair (1983).

269 Marsh Sandpiper *Tringa stagnatilis*

Far less numerous than the Greenshank for which it is easily mistaken; it is an uncommon to rare summer migrant from the Palearctic. Mostly seen in the Saco where it forages together with other waders. Prefers the sandier areas with shallow water, normally does not forage on mudflats; also seen in the channels in the mangrove forests (but with a low habitat preference of 12%). No records in winter.

270 Greenshank *Tringa nebularia*

A very common nonbreeding migrant to Inhaca's mudflats. First-year birds regularly overwinter. Seen all year round, but more numerous between August and March. Immatures are common. Normally seen alone. Prefers the small tidal pools or the water's edge of the incoming and outgoing tide, where it hunt for shrimps and other small prey. Numerous in both the northern and southern bays, but also seen along the west shore. Although this species and other Scolopacidae are listed as breeding in Mozambique (Dowsett & Dowsett-Lemaire 1993); no confirmation of this phenomenon has been made for Inhaca. The museum has a bird in its collection; also in the Maputo Natural History Museum.

271 Knot *Calidris canutus*

A rare vagrant. The only observations are not well documented (Vittery 1978) and include a group of 50 birds in March 1976. A bird ringed as a first-year (UK ring CR76777) at Dungeness, Kent (50°54'N, 0°54'E) on 30 August 1969 was recovered (freshly shot) at Maputo (26°00'S, 32°36'E) on 10 October 1970 (Clancey 1971; SAFRING). This is the only recovery of a ringed wader in Mozambique (SAFRING).

272 Curlew Sandpiper *Calidris ferruginea*

An abundant Palearctic wader, preferring the muddier areas where it is seen probing for polychaetes; sometimes seen in mangroves, not so common on the west shore and absent from the ocean side. Forages in small flocks of 10-20 individuals although also widely dispersed in larger flocks. Easily disturbed by raptors. Roosts at sandbanks and rocky shores at high tides, large flocks of hundreds of birds are seen flying along the coast with the changing of tides. Far more numerous in summer, but overwinters in small numbers with very few sightings in June and July; plumage changes seen around March. A flock of 2000 birds was counted in late November by Vittery (1978), with one in full breeding plumage.

273 Dunlin *Calidris alpina*

A single observation of one bird in the Saco in the muddy zone in December 1994 is the only observation to date for Mozambique. It was foraging between Curlew Sandpipers, and was distinguished by its smaller size, smaller and less curved bill, darker breast and different foraging behaviour to Curlew Sandpipers.

274 Little Stint *Calidris minuta*

A rare summer migrant of the intertidal zone, with only a few records from Inhaca. It is more numerous in the littoral zone on the mainland.

281 Sanderling *Calidris alba*

A very common Palearctic migrant with no records between May and July. Is found on every shore or sandbank around Inhaca but prefers the sandier patches and beaches. Always in small groups of a few individu-

als; hunts with a characteristic posture and very rapid probing. The palest sandpiper with a clearly darker shoulder patch. Roosts on the rocks near Ponta Torres where more than 1000 have been counted. High numbers also reported by Vittery (1978). The flocks are sometimes so dense that Da Rosa Pinto (1958) reported that a Mr. Dias shot four birds with one bullet; a bird caught in 1957 is in the collection of the museum on Inhaca.

283 Broadbilled Sandpiper *Limicola falcinellus*

This rare vagrant was listed by Berruti & Sinclair (1983) as occurring on Inhaca, an observation recognized by Hockey *et al.* (1986).

284 Ruff *Philiomachus pugnax*

A rare summer migrant to Inhaca's coastline, two birds observed in October 1993 between the MBS and Ponta Raza. In January, 11 birds were seen foraging in the same area. Also isolated records from the Saco in the same period and from March 1996.

288 Bartailed Godwit *Limosa lapponica*

An uncommon summer migrant to the intertidal areas, especially around the inner mudflats of the Saco between Ponta Pundume and Ponta Torres. Seen roosting on the sandbanks of Ponta Raza. Also seen in the northern bay but less frequently; mostly in small groups of two or three birds, sometimes as many as 10. Larger numbers were seen in 1996; 50 at Ponta Torres in March and 120 in the eastern bend of the Saco in January; several observations from June 1994 and June 1995. The only earlier records for Inhaca are 20 in February 1976, 17 in November 1976 and 2 in December 1977 (Vittery 1978).

289 Curlew *Numenius arquata*

An uncommon Palearctic migrant seen only in summer on the mudflats of the southern bay, most observations are of birds seen foraging on seagrass fields, normally alone or in small groups. Seen mixing with Whimbrels while roosting on the higher-lying sandbanks of the Saco. Higher counts especially around April, May and August, probably when passage migrants stop over in the area and observations can be made of 20-30 birds.

290 Whimbrel *Numenius phaeopus*

The most abundant species of the intertidal area; a nonbreeding Palearctic migrant. Most frequent in summer, but immatures stay all year. Adults leave in April and arrive again in September (Appendix 2). Frequents mudflats, sandflats and is found foraging in the mangrove forests, the latter with a habitat preference of 16%. Numerous in the Saco, Ponta Pundume and the Sangala area. Mostly alone or in small groups. The long-eyed crab *Macrophthalmus grandisiri* is the main prey species, although shrimps and other crabs (army crabs and fiddler crabs) are also taken. The abundant fiddler crabs *Uca* spp. do not seem to be a very important part of their diet as has been observed in other areas. Probes or runs and dashes for possible prey species. Non-foraging individuals regularly seen on sandbanks at low neap tides, when most of the mudflats are not exposed. Territorial in summer; display and aggressive interaction between Whimbrels are regularly seen. Flies along the coast to roosting areas. Roosts also in mangrove trees. Total population estimated at around 1400 birds. Calls frequently, also at night. Named the 'marcador de maré' (tide caller) by the local population of Inhaca, they can even tell from the birds' calls if the tide is coming in or going out (Impacto 1997). A bird caught on 1 January

1957 at Ponta Raza is in the museum collection, four others are in Maputo.

295 Blackwinged Stilt *Himantopus himantopus*

This bird was seen only once between the hotel and the lighthouse in the intertidal area in January 1995. More abundant on the mainland, such as on the salt pans near Maputo.

296 Crab Plover *Dromas ardeola*

Never seen during the intensive observation period in 1993-95. Several sightings of a group of 10-43 birds roosting at Ponta Raza on the sandbank between November 1995 and February 1996; also seen roosting (32 birds) close to Ponta Pundume in summer of 1996-97, but not seen foraging on the island. Also listed by Macnae & Kalk (1969), Jensen (1968), Vittery (1978) and Herdam (1994, with photograph), who saw a group of 54 in January 1994. All earlier sightings are of roosting birds at Ponta Raza.

298 Water Dikkop *Burhinus vermiculatus*

Several sightings of this infrequent resident of Inhaca are from the inner channels of the southern mangrove forest in the Saco. Inconspicuous, because it hides behind mangrove pencil- and buttress-roots. Flies short distances when disturbed. Also known from Ponta Torres and Portuguese Island. On bird was caught with a flashlight at the MBS at night in January 1997 by G. Holzhausen. Not appearing on earlier lists but recently also mentioned by Oliveira (1996).

307 Arctic Skua *Stercorarius parasiticus*

This rare vagrant is only recorded for the ocean surrounding Inhaca by Brooke *et al.*

(1981) in October and November 1976; also seen by Berruti & Sinclair (1983) after a cyclone. Clancey (1971) stated that there were many present between Maputo and Inhaca in December 1970 and January 1971.

309 Pomarine Skua *Stercorarius pomarinus*

Seen several times from the ferry connecting Inhaca to Maputo, in Maputo Bay close to Inhaca in summer, an uncommon to rare bird. Also listed by Brooke *et al.* (1981), Vittery (1978) and Berruti & Sinclair (1983) as present around Maputo Bay.

310 Antarctic Skua *Catharacta antarctica*

Two observations of this species were made by Jensen (1968) in April 1968 flying along the inner bay shore of Ponta Torres; several days later the bird was seen again.

312 Kelp Gull *Larus dominicanus*

Immatures and adults are regularly seen on any coast of the island although more often along the protected shores. In May 1995, 17 individuals were counted at the sandflats near the Barreira Vermelha at low tide, but normally seen alone. Considered an uncommon winter visitor.

313 Lesser Blackbacked Gull *Larus fuscus*

A definite observation of this rare vagrant on the open ocean near Ponta Torres in the summer of 1993-94 and opposite the MBS in March 1996. Also listed by Brooke *et al.* (1981) and Berruti & Sinclair (1983). In the 1970s the occurrence of this species was still doubtful (see Clancey 1971), but nowadays sufficient information is available for its inclusion here.

315 Greyheaded Gull *Larus cirrocephalus*

A common resident of Inhaca's shores. Seen throughout the year, but more sightings have been made in summer. It is easily seen near the fishermen's boats close to the hotel. Roosts on sandflats, such as the ones near Ponta Raza or in front of the hotel at low tide. The most abundant gull of the island. Present in the museum collection of the Natural History Museum in Maputo.

322 Caspian Tern *Hydroprogne caspia*

An uncommon nonbreeding resident, seen roosting at the sandbanks at Ponta Raza or flying along the coastline and diving for fish, preferring the larger waterbodies. At least part of the Inhaca's population does not migrate but is sedentary. More frequently seen on the southern and western side of the island. Roosts with Lesser Crested Terns. Maximum count of 250 by Brooke *et al.* (1981).

324 Swift Tern *Sterna bergii*

Also an infrequent resident, more numerous in winter and observed less often along the Indian Ocean beach. Brooke *et al.* (1981) counted 300.

325 Lesser Crested Tern *Sterna bergalensis*

A common tern of the shoreline of Inhaca; more numerous in summer. Seen on sandbanks while roosting or searching for fish, also in the smaller Saco at low tide. Observations include Portuguese Island. In October/November 1976 counts around Inhaca had a median of two and a maximum of 15 (Brooke *et al.* 1981); it has probably increased because approximately 170 were counted in the summer of 1995-96.

326 Sandwich Tern *Sterna sandvicensis*

Normally seen only near Ponta Raza, yellow-tipped bill is diagnostic and facilitates identification when roosting between Caspian and Lesser Crested Terns on the sandbanks. 450 birds were seen around Inhaca by Brooke *et al.* (1981).

327 Common Tern *Sterna hirundo*

Seen only in summer; scarce. It differs from the other terns in habitat choice, seen more on the east coast near the Indian Ocean than the other terns. Mostly alone or in small groups. Unusual observations of large numbers (several hundreds, 450, 2000) in October and November 1976 by Brooke *et al.* (1981).

331 Blacknaped Tern *Sterna sumatrana*

A vagrant to the southeast African coast, listed by Vittery (1978) for Inhaca based on a sighting of an immature at the Cabo da Inhaca in November 1976; appears also in Brooke *et al.* (1981) and Berruti & Sinclair (1983).

332 Sooty Tern *Sterna fuscata*

Seen once after a cyclone by Berruti & Sinclair (1983) and mentioned by Brooke *et al.* (1981).

333 Bridled Tern *Sterna anaethetus*

Listed by Berruti & Sinclair (1983) as appearing after a cyclone around Inhaca.

335 Little Tern *Sterna albigifrons*

The most common tern of the island, seen everywhere along the coast, and more nu-

merous in summer; few observation from the east side. Catches small fish at the surface while hunting in groups but can also hover. Noisy when flying; roosts with other terns. Vittery (1978) counted 400 in late November.

339 Whitewinged Tern *Chlidonias leucopterus*

Seen on two occasions in early summer (October-November) by Brooke *et al.* (1981).

348 Feral Pigeon *Columba livia*

Occurring for the first time on the list of Nilsson (1988) as present on Inhaca with no further information. Nowadays more common with regular sightings of small groups around the hotel; the population is increasing.

350 Rameron Pigeon *Columba arquatrix*

Only one observation of this vagrant at Ponta Torres in June 1994. It landed on the bare rocks between the evergreen forest and the mangroves, left several minutes later and flew into the forest.

352 Redeyed Dove *Streptopelia semitorquata*

An uncommon resident of Inhaca's forest, but also seen in mangroves and even swamps; more often heard than seen. TSC maximum of 30 in December. Recorded breeding by Macnae & Kalk (1969) and represented in the museum collections on Inhaca and Maputo.

354 Cape Turtle Dove *Streptopelia capicola*

A common resident of Inhaca, found everywhere except for the very dense forest and

the intertidal area; forages in agricultural fields looking for harvest leftovers or eating corn seeds. Nests in forest and mangroves, although regarded as a nonbreeding species by Dowsett & Dowsett-Lemaire (1993) (because they also consider the other *Columbidae* as nonbreeding residents for Mozambique). Tasty and hunted with catapults by the local population. Present in both the Inhaca and Maputo museum collections.

355 Laughing Dove *Streptopelia senegalensis*

This dove was seen once in March 1995 on Inhaca in an atypical habitat, the mangrove trees *Avicennia marina* of the Saco in 1994. Herdam *et al.* (1981) observed two in January 1981 at Ponta Pundune.

358 Greenspotted Dove *Turtur chalcospilos*

Probably the most abundant dove of the island together with the Cape Turtle Dove; considered a common resident of the woody vegetation but also a visitor to the fallow fields of Inhaca. Often seen in pairs while foraging on the ground. Heard more often between January and May.

359 Tambourine Dove *Turtur tympanistris*

A record of this dove was made by V. Parker in the forest near the lighthouse in February 1995. Also seen in October 1996 by the authors around the MBS.

361 Green Pigeon *Treron calva*

A common resident of the semi-natural vegetation and forests with habitat preferences of respectively 79% and 12% of total observations (Appendix 2); aggregates in large groups in the *Carissa bispinosa* trees when flowering southeast of the MBS. When dis-

turbed all birds flies rapidly; typical call helps localization and identification. According to Feijen & Feijen (1995a), considered a local delicacy. One individual is present in the museum collection in Inhaca, also in NHM.

363 Brownheaded Parrot *Poicephalus cryptoxanthus*

Common in the forest on the mainland but scarce on Inhaca; recorded in the forest by Feijen & Feijen (1995b). Confirmation of its presence was obtained in December 1996, when an immature bird (suggesting breeding of the species on Inhaca) was caught by House Crows, and was found and rescued by people living in the Saco area.

366 Roseringed Parakeet *Psittacula krameri*

An immature bird was seen in October 1996; its long tail, slender posture, red-and-black bill and bright green colour were diagnostic. It was seen for 15 minutes at the beach near the MBS. It was apparently new to the island because it tried to drink seawater and attempted to catch an army crab. It then flew into the *Casuarina* trees where it descended from several branches to inspect nests of the Spottedbacked Weaver. It is the first record of this alien species for Mozambique.

377 Redchested Cuckoo *Cuculus solitarius*

A vagrant, seen on two occasions in May 1994 calling in the top of a tree in the forest surrounding the lighthouse; also recorded in January 1997.

384 Emerald Cuckoo *Chrysococcyx cupreus*

Listed by Nilsson (1990a) as occurring on the island and observed by Feijen & Feijen

(1995a) calling in the top of the highest trees on the road between the MBS and the hotel.

385 Klaas's Cuckoo *Chrysococcyx klaas*

One sighting at the hotel in July 1979 (Herdan *et al.* 1981), listed by Clancey (1971), and heard in January 1997 around the MBS (Allan & Holtshausen 1997).

386 Diederik Cuckoo *Chrysococcyx caprius*

A rare visitor which was seen in April 1994 while resting in the reeds around the Fungene swamp area; heard in the mangrove area around the Saco in January 1996; also listed by Vittey (1978) and Allan & Holtshausen (1997). A specimen was taken in the 1930s on Inhaca (Da Rosa Pinto 1958).

387 Green Coucal *Ceuthmochares aereus*

A common resident of the dense coastal forests, sometimes around the swamps; normally solitary or in pairs. It is found jumping from branch to branch in the tops of the trees near the MBS and at Ponta Torres; the call is distinctive.

391 Burchell's Coucal *Centropus superciliosus*

A common resident of the reedbeds of the island and also found in the forests and agricultural areas. In the reeds they hide when approached; in forest they normally flee on the wing. The characteristic call is often heard. TSCs with small numbers in every month. A nestling was caught on Inhaca (Da Rosa Pinto 1958) and Macnae & Kalk (1969) reported it as a breeding bird for Inhaca. In the museum collections in Inhaca and Maputo.

392 Barn Owl *Tyto alba*

Probably a common resident. It was heard regularly at night in the summers of 1995-97, but only three visual observations, probably of the same individual, in March 1995 during daytime; this bird could be approached easily along the footpath enclosed by dense woody vegetation leading up to the lighthouse.

396 African Scops Owl *Otus senegalensis*

Seen once in June 1994 in a tree near the MBS where it stayed for several hours. Probably readily overlooked; more common on the mainland (see Clancey 1971 and Vittey 1978). Never heard on Inhaca.

397 Whitefaced Owl *Otus leucotis*

Common around the MBS, resident, seen at dusk and heard at night. Breeds near the MBS because two birds were seen at a nest in the *Casuarina* trees in May 1995 and two fledglings were seen in October 1996. Strangely not listed by other observers as occurring on Inhaca. Thought to be a messenger of bad tidings when singing near a house (Impacto 1997). According to the same source one could catch a Whitefaced Owl when it perched in a tree by walking circles around it; the owl will follow the movements with its head and fall to the ground because of dizziness.

398 Pearispotted Owl *Glaucidium perlatum*

There is only one record of this species for Inhaca; it was heard at night around the MBS in January 1997.

399 Barred Owl *Glaucidium capense*

Listed by Macnae & Kalk (1969), Feijen &

Feijen (1995a, with photograph) and Oliveira (1996) as occurring on Inhaca, roosting in the lower branches of the forest. No confirmation was obtained by the authors, hence probably rare.

401 Spotted Eagle Owl *Bubo africanus*

Seen on Inhaca in January 1994 in a cashew-nut tree in the semi-natural vegetation close to the MBS; clearly seen for 10 minutes, after which it disappeared into denser forest. Also mentioned by Macnae & Kalk (1969) as occurring on Inhaca; never heard calling by the authors.

405 Fierynecked Nightjar *Caprimulgus pectoralis*

The common nightjar on Inhaca. Seen frequently in all sandy areas at night while driving to and from the hotel and often heard at dusk. Nesting in August and September mentioned by Da Rosa Pinto (1958), who also collected two nestlings for the museum in Maputo.

409 Mozambique Nightjar *Caprimulgus fossi*

The typical nightjar churring with changing speed and tone was heard several times in December 1995 at the MBS at night.

411 European Swift *Apus apus*

Not seen by the authors but listed by Vittey (1978) who saw 30 and 500 on 23 and 24 November 1976 respectively.

412 Black Swift *Apus barbatus*

Only recorded by Macnae & Kalk (1969) as occurring on the island; not seen recently. Clancey (1971) could not confirm its occurrence on Inhaca; perhaps it was confused

with European Swift.

415 Whiterumped Swift *Apus caffer*

An uncommon breeding summer migrant with most observations in January, but also seen once in July. Most observations are from the north of the island where pairs of birds are seen circling the lighthouse.

416 Horus Swift *Apus horus*

Only recorded by Vityery (1978) in winter, from May–October, the same period as the observations given by Nilsson (1990b) for sightings around Maputo. Could easily be confused with the Little Swift.

417 Little Swift *Apus affinis*

A rare visitor to Inhaca, occurrence based on two sightings of Herdam *et al.* (1981) who saw several birds on the east coast in March 1978 and July 1979.

421 Palm Swift *Cypsiurus parvus*

A common resident, seen all year close to the palm plantations in the north or next to the hotel or flying over swamps. Specimens in the museum collections in Inhaca and Maputo.

424 Speckled Mousebird *Colius striatus*

Less frequent than the next species but occurring on Inhaca as an uncommon to rare breeding resident.

426 Redfaced Mousebird *Collus indicus*

This is the mousebird most frequently observed at Inhaca. It is a conspicuous bird, noisy and seen mostly in small groups of not more than 10 birds. Frequent and wide-

spread on Inhaca but not in the littoral areas, preferring forests and the semi-natural vegetation. Considered a breeding species by Macnae & Kalk (1969) and is in the museum collections of the MBS and Maputo.

427 Narina Trogon *Apaloderma narina*

A vagrant, seen in both July 1994 and 1995 in the forest surrounding the MBS and in the forest at Ponta Raza.

428 Pied Kingfisher *Ceryle rudis*

The most common kingfisher of the island, a common resident of the littoral shallow waters, somewhat more commonly recorded between February and July. Can be found hovering above the bays or in the mangrove channels. Nests in mangrove trees. Males and females often seen flying together or resting and perching on the mangrove trees. Also perches on fishing poles. Noisy and conspicuous, although more often heard than seen in the mangroves. In the museum collections of Inhaca and Maputo.

429 Giant Kingfisher *Ceryle maxima*

A vagrant which was observed at the Barreira Vermelha on the west coast resting in the top of a tree in August. Vityery (1978) also saw the species at the Barreira Vermelha in July 1979 regularly entering a hole and supposed it to breed. Also seen in February 1995.

431 Malachite Kingfisher *Alcedo cristata*

An uncommon winter visitor to the Inhaca coastal zone, especially in the Saco area where a pair was seen regularly in the winters of 1994 and 1995. Also seen in the swamps near the airport. Normally perches on dead branches lying on the mudflats or on

Plate 1. Whitefaced Owl.



Plate 2 (below). The mangrove forest in the Saco area.



dead trees. A tiny kingfisher which is easily overlooked. Disappears totally in summer.

432 Pygmy Kingfisher *Ispidina picta*

A common summer migrant to the coastal forest, where it can be heard and found, while perching on branches for insects on the ground. Entered one of the houses at the MBS in the summer of 1995-96. Two mist-netted by Nilsson (1988).

434 Mangrove Kingfisher *Halcyon senegaloides*

A common resident and winter visitor to Inhaca, seen in all months but more observations are from the winter. Found in open forest and in mangroves. The authors received R10 from a South African bird-watcher who had never seen the bird before and paid this amount for every new bird to his list.

435 Brownhooded Kingfisher *Halcyon albiventris*

A frequent resident of the coastal forest, although less abundant in the denser forest patches; few observations from the agricultural fields. Perches on branches; often seen around the MBS. All observations are of solitary birds. Herdam *et al.* (1981) saw a bird feeding young next to the stairs at the MBS in January 1981.

437 Striped Kingfisher *Halcyon chelif-culi*

There are four recent records for this species on Inhaca: by the authors in October 1993, March 1994, February 1995 at the swamps southeast of the MBS and by Allan & Holts-hausen in January 1997. It was also included on earlier lists. Stomach content of one specimen included locust and caterpillars (Da Rosa Pinto 1958). A specimen in

Inhaca's museum collection is dated 1957.

438 European Bee-eater *Merops apiaster*

A rare Palearctic migrant to the island listed by Feijen & Feijen (1995a), who saw an exhausted bird at the MBS. Occurs more often on the mainland.

439 Olive Bee-eater *Merops superciliosus*

A rare summer migrant to Inhaca; occurs in small groups. One observation was a spectacular dive towards an insect (dragonfly) which had just escaped from one of the author's hands, 2 m in front of him. Also mentioned on other lists.

440 Bluecheeked Bee-eater *Merops persicus*

A frequent late-summer visitor, normally found in groups. Fifty birds have been seen in the bushes around the Muchina swamp. The earliest observation in December was of 31 individuals. Latest records from April when only two birds were seen. One individual caught in 1957 (Da Rosa Pinto 1958).

443 Whitefronted Bee-eater *Merops bullockoides*

A rare summer visitor of which only one observation was made by the authors in May 1995 of a group of 15 birds in the mango and cashew trees around the Muchina swamp; also listed by Vittery (1978).

444 Little Bee-eater *Merops pusillus*

The most abundant bee-eater on the island, a common resident but more observations from the late-summer (January-March); easily seen in trees in the agricultural areas where it hunts in small groups, also known

from swamps, semi-natural vegetation and forests. Hunts in a typical way; birds replacing each other on branches at intervals while eating their catches and then continue hunting for insects. Specimen in NHM.

447 Lilacbreasted Roller *Coracias caudata*

A scarce resident, several observations throughout the year always at the same place - at the top of a small shrub next to the swamps near the airport. No earlier records, but there is one specimen in the museum collection without date of capture.

449 Purple Roller *Coracias naevia*

Only one observation in the forest at Ponta Torres alongside the road to the hotel, resting in a large tree; no earlier records.

451 Hoopoe *Upupa epops*

A frequent bird of open woodland and agricultural fields. It is resident and is seen everywhere on the island in suitable habitat, solitary or in pairs. Vittery (1978) observed a pair feeding young in late November 1977. Present in the collections of the museums on Inhaca and in Maputo.

455 Trumpeter Hornbill *Bycanistes bucinator*

Common and resident in the forest where it was observed in groups of two to 19 birds, habitat preference of 78% for forests. Also seen on agricultural fields where it eats fruits, preferring the paw-paw trees in the Ponta Torres area. Frequently seen flying from one forest patch to the next. Equally abundant throughout the year.

457 Grey Hornbill *Tockus nasutus*

A rare visitor to Inhaca; seen once in Janu-

ary 1981 in a coastal shrub at Ponta Raza (Herdam *et al.* 1981).

460 Crowned Hornbill *Tockus alboterminatus*

Seen by us on one occasion; four birds were observed eating fruit in a *Ficus* spp. tree in May close to the MBS. Three birds were seen in the forest by Herdam *et al.* (1981).

464 Blackcollared Barbet *Lybius torquatus*

A common resident of the island with small numbers in each month in TSCs; seen everywhere except for the intertidal area, preferring forest (49%). Mostly occurring in pairs; the typical duet song is often heard. Seen nesting in a dead tree near the lighthouse in January 1995; breeding also noted by Macnae & Kalk (1969). Several specimens from Inhaca were presented to the museum in Maputo (Da Rosa Pinto 1958) and another is in the collection at the MBS.

471 Goldenrumped Tinker Barbet *Pogonilus bilineatus*

An abundant resident of the forest and bush vegetation. More often heard than seen. Calls from tree tops, especially when it is hot. Silent when eating insects in trees. More abundant in summer. Three males were caught by Da Rosa Pinto (1958); one specimen on display in the NHM museum collection.

474 Greater Honeyguide *Indicator indicator*

Probably rare on Inhaca because it was only seen by Macnae & Kalk (1969) and Nilsson (1988).

476 Lesser Honeyguide Indicator minor

Seen during on one occasion near the MBS close to the bird bath in March 1995 and one record from February 1995; also listed by Oliveira (1996).

478 Sharpbilled Honeyguide Prodotiscus regillus

A vagrant, seen once in January 1994, close to the MBS in a forest where it flew from bush to bush and fed on the ground; also seen in April 1996 in the semi-natural vegetation south of the MBS.

483 Goldentailed Woodpecker Campeitheria abingoni

Seen once on dead Flamboyant trees near the MBS; also listed by Clancey (1971).

486 Cardinal Woodpecker Dendropicos fuscescens

A rare species and possibly with a declining population because the bird was listed by Viterly (1978), Herdani *et al.* (1981) and Nilsson (1988) but was seen only once in February 1995 by the authors.

487 Bearded Woodpecker Thripias namaquus

An uncommon resident, recorded nesting in April in dead trees next to the museum where it was photographed. Seen in August close to the lighthouse and regular sightings in the dead *Casuarina* trees south of the MBS. Not appearing on earlier lists, but recently mentioned by Oliveira (1996).

494 Rufousnaped Lark Mirafra atricana

Only appearing in the list of Berruti &

Sinclair (1983) for Inhaca.

518 European Swallow Hirundo rustica

An abundant Palearctic summer migrant which was observed in every habitat, but mostly flying over swamps (52%). Earliest sightings were in September when five birds were seen; increases in summer months with a peak count of 40 for one hour of TSC; numbers decrease after April with few observations between May and August. Brooke & Tuer (1968) mentioned that 50 swallows took refuge in the hotel after torrential rains in February 1967; some were caught and proved to be immature birds completing their moult. At the time of arrival on 25 and 26 October, they were once caught by hand when exhausted birds flew into the houses of the MBS (Da Rosa Pinto 1958). Present in both the museum collections.

522 Wiretailed Swallow Hirundo smithii

One seen sitting on the roof of the MBS in October 1995. Listed by Nilsson (1988) and described as 'common' by Da Rosa Pinto (1958).

524 Redbreasted Swallow Hirundo semirufa

A rare summer visitor to the island, observed once while sitting on the roof of the MBS. Not recorded elsewhere on the island.

527 Lesser Striped Swallow Hirundo abyssinica

Although common on the mainland this bird was not seen on Inhaca by the authors; it appears in the appendix of Macnae & Kalk (1969), and regarded by Clancey (1971) as present on Inhaca.



Plate 3. The littoral zone in the Saco.

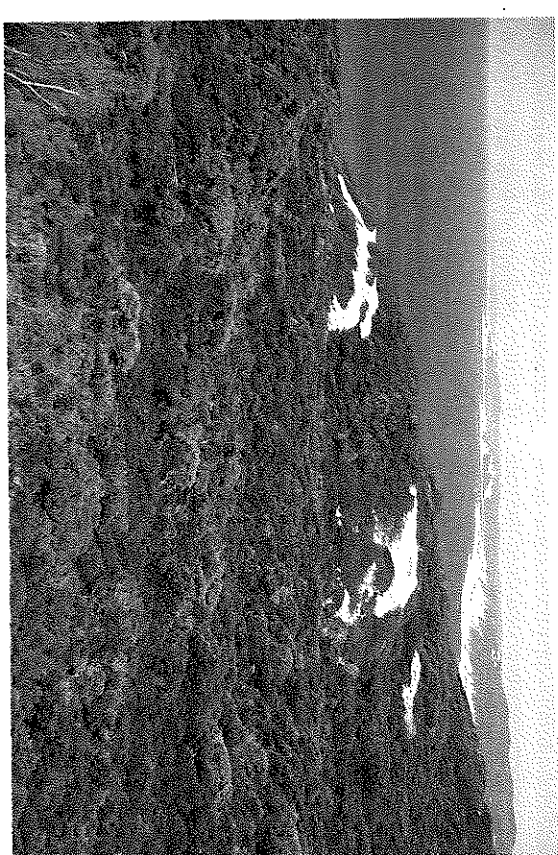


Plate 4. The dense forest reserve on the eastern shore of the Island as seen from the lighthouse.

530 House Martin *Delichon urbica*

An uncommon swallow seen around swamps, forests and cultivated areas. It is a summer visitor; alleged sightings in winter are probably misidentified Grey-rumped Swallows. Specimens in the museum taken by Da Rosa Pinto (1958); also in NHM.

531 Grey-rumped Swallow *Pseud-hirundo griseopyga*

A frequent resident, seen on the ground near swamps but also at the cliff near Ponta Pundúne. According to Clancey (1971) breeds underground in rodent burrows but no recent breeding records for the island. Inhaca's museum has a bird in its collection; also in NHM.

532 Sand Martin *Riparia riparia*

A uncommon migrant from the Palearctic, seen at the freshwater swamps near the airport and at the MBS. Apparently some birds overwinter because observations of the species were made in July (20 birds) and August 1994 (8 birds). The birds seen in July were sheltering on the windowsills of the dormitories of the MBS during cold weather (heavy wind and rains). One individual was caught by hand, identified and released. Not recorded from September–December.

533 Brownthroated Martin *Riparia paludicola*

Seen on only one occasion in October 1994, when 11 birds were recorded near wet cultivated fields at the swamp near the airport.

534 Banded Martin *Riparia cincta*

A frequent summer migrant to mangroves, swamps and cultivated areas of Inhaca. It is the most abundant martin at the sand dunes near Ponta Pundúne. Maximum number re-

corded 21 in January; latest record from June.

536 Black Sawwing Swallow *Psilidoprogne holomelas*

A common resident of Inhaca, with numbers increasing in winter (March–October). Apart from the littoral zone, it can be seen everywhere on the island where it occurs most often above forest (69%). The maximum number of birds was recorded in May.

537 Eastern Sawwing Swallow *Psilidoprogne orientalis*

Appearing in the list of Macnae & Kalk (1969), but not seen in our observation period from 1993 onwards; needs confirmation.

538 Black Cuckooshrike *Campophaga flava*

An uncommon resident bird with numbers increasing slightly at the beginning and end of winter, perhaps of migrant birds on passage. Normally seen in the forest near the MBS, sometimes seen close to swampy areas, mostly alone or in pairs. A specimen was taken by Da Rosa Pinto (1958) and another dated 1957 is in the museum collection of the MBS.

540 Grey Cuckooshrike *Coracina caesia*

An uncommon resident of Inhaca's forest. Only seen behind the MBS, with sightings of solitary birds in tree canopies.

541 Forktailed Drongo *Dicrurus adsimilis*

A common visitor seen in open forests, savanna areas and cultivated fields; one that was probably breeding was seen chasing a Yellowbilled Kite near the airport. More

abundant in summer when TSCs range from seven to 27, almost disappears between April and August.

542 Squaredtailed Drongo *Dicrurus ludwigi*

A frequent resident. Less abundant between September and December, and seen everywhere on the island except for the intertidal area; prefers forest (64%). Regular observations from January onward, far later than for Forktailed Drongo; noisy. Mismetted in May 1988 (Nilsson 1988) and found nesting by Vittey (1978). In both museum collections.

545 Blackheaded Oriole *Oriolus larvatus*

Seen in February 1995, March 1996 (V. Parker) and in January 1997 at the lighthouse. One bird was seen by Vittey (1978) in November 1976; also listed by Da Rosa Pinto (1958) for the woodlands of Inhaca.

548 Pied Crow *Corvus albus*

A common resident of Inhaca, widespread, even sometimes on the sandflats at low tides, when it scavenges for leftovers or searches for dotilla crabs *Dorilla fenestrata*; mostly seen in pairs. Most regularly observed in the forest behind Ponta Pundúne and behind the MBS. Harassed by House Crows; local inhabitants suggested that Pied Crows were pushed out of the settlement into other habitats by House Crows. Nests on the island (which is also mentioned by Macnae & Kalk 1969), for example in the palm trees near the MBS. Around the MBS, Pied Crows have been seen digging holes in the sand with their beaks, placing food items in the holes and then covering the food with sand.

549 House Crow *Corvus splendens*

Not reported by Da Rosa Pinto (1958),

Macnae & Kalk (1969) or Clancey (1971). First mentioned by Vittey (1978) in small numbers: one pair in 1976, nine birds in February 1977 and more than 20 in November 1977. Herdam *et al.* (1981) mentioned a minimum of 20 birds. Feijen & Feijen (1995a) stated that they were introduced around 1940 (which is doubtful because they would then have been mentioned in the earlier publications) and stated that they bred in the *Casuarina* trees around the hotel until 1966 when the herons started to use these trees for nesting. They are now a common resident of the island, especially near human settlements, abundant around the hotel area and close to the lighthouse. They nest in palm trees and mangroves, and are seen everywhere on the island, also on the exposed sandflats at low tides. The maximum counted during a one-hour observation period was 90. House Crows are bold; they steal food from hotel guests and chase away other bird species such as the local Pied Crow and Gymnogene. They are fearless when approaching settlements for food and are suspected to have a negative influence on the population sizes of native species. They steal eggs and chicken from domestic hens.

A group of nine House Crows was once seen at the MBS robbing nests of Grey Herons and Masked Weavers; they opened the top end of the weaver nest and pushed the eggs of the herons out of the nest after which they were eaten on the ground. On another occasion they threw two Grey Heron nestlings over the edge, which were killed and eaten on the ground. Attacks by House Crows are known (as told by the local inhabitants) especially on children. They are considered a pest species by the islanders. Aggressive interactions with Pied Crows are frequent. Total population is estimated at around 200–300 birds. Several attempts to exterminate this alien species have not resulted in extinction, although 341 crows had been killed (see also Gove 1995). Their eggs were destroyed and poisonous eggs have

been laid out, and children were rewarded (500–1000 MTC each) when handing in dead or unconscious birds; catapults and stones are also used for hunting them. They are not (yet) observed on the mainland, but these crows also occur on the Bazaruto Archipelago.

568 Blackeyed Bulbul *Pycnonotus barbatus*

Abundant, the most common resident bird of Inhaca, with a total of 1300 birds counted during the 144 TSCs done on the island. Seen in all habitats where there are trees with an equal preference for forest, semi-natural vegetation and agricultural fields. Seen eating fruits (piri-piri and papayas) in agricultural fields, but can also be seen hunting for insects in the mangroves. Nests in forests and mangroves trees. Noisy and aggressive especially early in the morning or late in the afternoon. Occurs in small groups of up to five birds. Fights between individuals are regularly recorded. Frequent visitor to the bird bath at the MBS where it comes in pairs. The most hunted bird by the local children, using catapults or glued branches. Two specimens caught by Da Rosa Pinto (1958); one bird in the museum collection.

569 Terrestrial Bulbul *Phyllastrephus terrestris*

A common resident of the undergrowth of the forest; seen often when foraging between dead leaves, mostly in small groups of up to six. Not easy to see, fairly silent and hidden. Mistnetted by Nilsson (1988) and in both museum collections.

572 Sombre Bulbul *Andropadus im-portunus*

Considered the most abundant species of Inhaca by Da Rosa Pinto (1958), but could now be outnumbered by the Blackeyed

Bulbul. An abundant resident in the canopies of the forest and savanna areas; not seen in areas without trees. It is more often heard than seen. Maximum TSC of 67 birds in May. Lives higher in the trees than the Terrestrial Bulbul; seen in the same habitat as the Blackeyed Bulbul but prefers denser vegetation. Considered breeding by Macnae & Kalk (1969). On display in the collections of the MBS and in Maputo.

574 Yellowbellied Bulbul *Chlorocichla flaviventris*

A rare vagrant only one record from February 1995 and listed by Macnae & Kalk (1969) and Vittery (1978) as occurring on Inhaca; suitable habitat appears to be available for this shy species of dense riverine forest.

576 Kurricane Thrush *Turdus ilibonyana*

A rare species for Inhaca, its presence on the island is based on sightings by Clancey (1971) and Vittery (1978).

587 Capped Wheatear *Oenanthe plesata*

A rare visitor, seen once in November 1994 on an abandoned cultivated field in the middle of the western forest on Inhaca, the only observation to date for the southern part of Mozambique.

589 Familiar Chat *Cercomela familiaris*

A rare summer visitor, seen twice in one month on a concrete block (marker for relief studies) in the middle of a fallow land, situated 2 km south of the MBS.

596 Stonechat *Saxicola torquata*

A frequent winter visitor, seen from March to September. All TSC observations were



Plate 5. Agricultural fields around the airport.

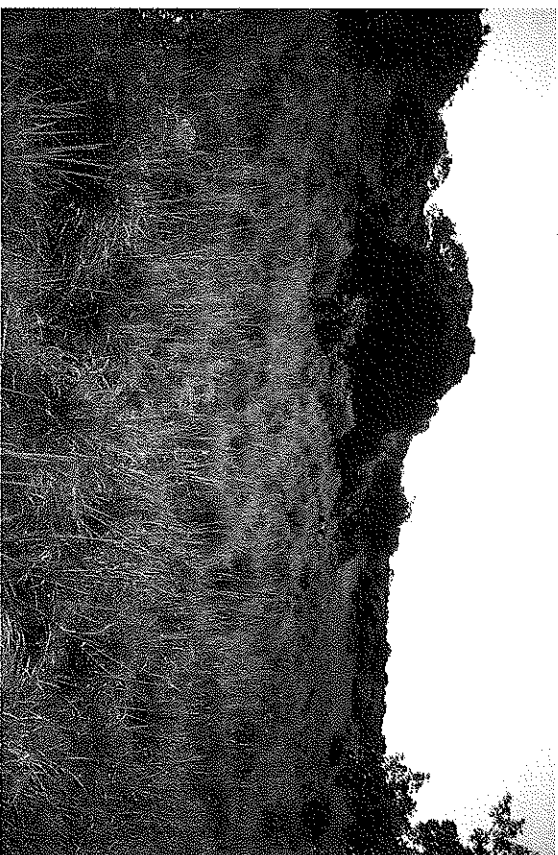


Plate 6. The semi-natural vegetation close to the MBS, abandoned fields in an early stage of succession.

from the swamps near the airport or near Muchina; TSCs vary from one to 36.

600 Natal Robin *Cossypha natalensis*

The most abundant winter visitor with probably a small resident population. Mostly seen singly in undergrowth of forest; not recorded between September and March by the authors, but V. Parker heard several calling in February 1995. Allan & Holtschusen (1997) heard them in January 1997, and supposed that they bred on the island. They are extremely secretive when breeding and commonly overlooked. TSCs vary from four to 40. Noisy and aggressive towards other individuals of the same species and other species, especially bulbuls and kingfishers. Seen frequently near the bird bath at the MBS. Four birds mistnetted and ringed by Nilsson (1988) in May 1988; represented in the museum collections.

602 Whitethroated Robin *Cossypha humeralis*

One bird was seen on Inhaca in May 1976 by Vittery (1978); also listed in Chancey (1971).

606 Starred Robin *Pogonochichla stelata*

A rare visitor, an immature seen once at the bird bath near the MBS in June 1995. Its typical robin-like posture with greenish-yellow back and yellow with darker stripes below justified its identification.

613 Whitebrowed Robin *Erythropgia leucophrys*

A rare resident, more frequently seen in winter; observed by the authors only in March, May, July and August in the forest, agricultural fields and semi-natural vegetation around the MBS. Also recorded by other observers. Allan & Holtschusen (1997)

heard it in summer, in January 1997.

616 Brown Robin *Erythropgia signata*

A rare visitor, seen in forest undergrowth in February 1994 on several occasions.

619 Garden Warbler *Sylvia borin*

An uncommon Palearctic summer migrant; single birds were seen in the forest.

628 Great Reed Warbler *Acrocephalus arundinaceus*

Seen on two occasions in the mosaic forest near the airport swamps, a rare summer migrant; presence also mentioned by Vittery (1978).

631 African Marsh Warbler *Acrocephalus baeticatus*

A singing bird was seen in February 1977 by Vittery (1978).

633 European Marsh Warbler *Acrocephalus palustris*

Seen once in February 1995 (V. Parker in *lit.*) and three birds were heard singing in February 1976 by Vittery (1978).

637 Yellow Warbler *Chloropeta natalensis*

Only listed as occurring on the island by Vittery (1978), based on an observation of one bird in May 1976.

643 Willow Warbler *Phylloscopus trochilus*

Small numbers of this Palearctic migrant were seen between October and April, with numbers increasing in mid-February according to Vittery (1978).

648 Yellowbreasted Apalis *Apalis flavida*

A common resident of forest areas (84%) but also recorded from the mangrove forests (16%); more abundant from February until March. Breeding reported by Macnae & Kalk (1969).

649 Rudd's Apalis *Apalis ruddi*

A species endemic to Mozambique, Swaziland and KwaZulu-Natal; seen only by Herdman *et al.* (1981) at the Barreira Vermelha in March 1978 and listed by Berruti & Sinclair (1983). It is recognized as 'potentially threatened' (Collar & Stuart 1985).

651 Longbilled Crombec *Sylvietta rufescens*

This is a rare species for Inhaca because the only sightings are recorded by Vittery (1978), Nilsson (1990a); it was heard in January 1997 (Allan & Holtschusen 1997).

655 Greencapped Eremomela *Eremomela scotops*

A rare visitor to Inhaca, a group of six seen several times in January 1994 in *Albisia adiantifolia* trees near the MBS. Not recorded previously.

657 Greenbacked Bleating Warbler *Camaroptera brachyura*

The most common warbler of the island, being a frequent resident of especially the undergrowth of the forest; also seen in other areas, except for the littoral zone and mangroves. The species has been seen breeding in Maputo (Chancey 1971); a bird caught on Inhaca in 1957 is in the museum collection of the MBS (also in NHM). The other colour type, the Greybacked Bleating Warbler *Camaroptera brevicaudata*, is also men-

tioned by Macnae & Kalk (1969) as occurring on Inhaca, although its usual distribution is further to the north in Mozambique; the latter species was not observed by the authors.

664 Fantailed Cisticola *Cisticola junco*

Seen in January 1994 close to the Muchina Village where it flew over the grassy area near the freshwater swamps in display flight. Also recorded by Allan & Holtschusen (1997) in January 1997.

665 Desert Cisticola *Cisticola aridula*

A rare resident cisticola, seen at the drier grass patches of the island, such as the open areas in the forest close to the MBS; also seen in fallow lands. No earlier records.

672 Rattling Cisticola *Cisticola chiniana*

The most common cisticola, a common resident, more often heard than seen in shrubs, grass and near swamps. Recorded all months with TSCs varying between two and 30 birds, but somewhat more sightings between January and May. In both museum collections.

674 Redfaced Cisticola *Cisticola erythrops*

A possible sighting was made by Vittery (1978) in October 1975, and possibly heard by Da Rosa Pinto (1958); also listed by Oliveira (1996), but not observed by the authors.

681 Neddicky Cisticola *fulvicapilla*

Seen on two occasions in March in an abandoned cultivated field at Ponta Torres, where grassy cover was developing; three pairs seen by Vittery (1978).

683 Tawnyflanked Prinia *Prinia subflava*

A common resident of Inhaca recorded often throughout the year in all habitats except for the littoral zone. Mostly seen hopping from branch to branch in forest undergrowth; an active bird which is more abundant in summer and less abundant between June and November. TSCs range from one (July, August) to 49 (January).

689 Spotted Flycatcher *Muscicapaa striata*

A rare summer Palearctic migrant. One bird was seen in January 1981 by Herdman *et al.* (1981). Vittery (1978), Oliveira (1996) and Allan & Holtshausen (1997) also mentioned the presence of low numbers in summer.

690 Dusky Flycatcher *Muscicapaa adusta*

A common winter migrant, usually present from April–September; observations mostly from the forest (87%) and bush areas; solitary. Abundant around the MBS. Two birds caught by Da Rosa Pinto (1958); on display in both museum collections.

691 Bluegrey Flycatcher *Muscicapaa caerulescens*

Not observed recently, but listed by Clancey (1971).

692 Collared Flycatcher *Ficedula albicollis*

A rare summer visitor. A male and female were seen feeding on insects in small shrubs in a cultivated area near the airport in the beginning of the 1994 summer; no previous sightings.

694 Black Flycatcher *Melaenornis pammelaina*

A common resident of woodland (87%), solitary; more numerous in winter. TSCs range from one (May, August, September) to 28 (July). Not appearing on other bird lists.

696 Mousecoloured Flycatcher *Melaenornis pallidus*

An uncommon flycatcher seen on several occasions on low branches in the woodland near the MBS, prefers the darker, lower forest layer. Breeding mentioned by Vittery (1978) in December.

698 Fiscal Flycatcher *Sigelus silens*

An infrequent winter migrant; observations from a fallow land in front of the mangroves of the Saco, the MBS and in other more open areas.

701 Chinspot Batis *Batis mollitor*

A common resident recorded in all seasons; numerous in all habitats with equal preference for forest, agricultural fields and semi-natural vegetation. TSCs range from seven (July) to 60 (March). Often seen in pairs. Nested around the MBS in October 1996, when three fledglings were seen and were fed by both the male and female. Specimens were collected by Da Rosa Pinto (1958); others are in the museum collections in Inhaca and in Maputo.

704 Woodward's' Batis *Batis fratrum*

This batis was recorded by Allan & Holtshausen (1997), who heard it in January 1997 in the forest at Ponta Torres.



Plate 7. Yellowthroated Longclaw.



Plate 8. The Indian Ocean reaches the shore on the southernmost point of Inhaca. The mainland can be seen at the horizon.

705 Wattle-eyed Flycatcher *Platy-steira peliata*

Seen most often in pairs, frequently in the middle layer of the forest, for example, around the MBS. More numerous in winter than in summer. Possibly increasing in numbers overall because earlier authors seldom mentioned the species for Inhaca.

708 Bluemantled Flycatcher *Trochocercus cyanomelas*

A frequent resident of the forest, such as around the MBS and Ponta Torres, often recorded in pairs. On 21 May 1988 two birds were ringed by Nilsson.

710 Paradise Flycatcher *Terpsiphona viridis*

A common resident of mainly the forest areas but also recorded from mangroves. Often in pairs. Aggressive encounters between males are frequent. Recorded as a nonbreeding species by Clancey (1971), but it probably breeds on Inhaca given the typical behaviour of males in the breeding season.

711 African Pied Wagtail *Motacilla agulmp*

An uncommon resident usually seen on the beach between Ponta Torres and the lighthouse at the rocky outcrops. Generally singly or in pairs; also seen by Vittery (1978).

713 Cape Wagtail *Motacilla capensis*

A frequent resident around the man-made canals in the rice fields, but also seen in the garden of the MBS feeding on insects. Breeding was reported by Oliveira on the east coast (1996). Specimen in NHM.

716 Grassveld Pipit *Anthus cinnamomeus*

A common bird of the grassy areas around swamps, cultivated fields and fallow lands, also known from the halophyte vegetation surrounding the mangroves. Calls frequently in flight. Runs rapidly through grass and hence difficult to observe; seen all year with a confirmed breeding record in January 1997 (Allan & Holtshausen 1997). One specimen is present in the museum collection.

722 Tree Pipit *Anthus trivialis*

A Tree Pipit was carefully identified by Jensen (1968) in the trees surrounding the MBS in March 1968.

728 Yellowthroated Longclaw *Macropyx croceus*

A species preferring the grass between the mangroves and swamps around the airport, perches on the top of bushes. It is most numerous at the beginning of the summer with TSCs of 16 and 15 respectively, other TSCs vary between one and 10. Considered a common resident which nests on the island.

730 Pinkthroated Longclaw *Macropyx ameliae*

Listed only by Berruti & Sinclair (1983) as occurring on Inhaca.

732 Fiscal Shrike *Lanius collaris*

A frequent visitor mostly in small shrubs near swamps; TSCs varying between one and six; no observations from August to January.

736 Southern Boubou *Laniarius ferrugineus*

Seen by several other observers as occurring on Inhaca (Macnae & Kalk 1969; Vittery 1978; Herdam *et al.* 1991) but no recent confirmation was obtained by the authors. The habitat for the bird is available on Inhaca and the bird is common on the adjacent mainland.

740 Puffback *Dryoscopus cubla*

A common resident of the forest (64%), but also in mangroves and close to cultivated and fallow lands. The frequency of observations steadily increases in summer (October–March), probably owing to increasing conspicuousness. Often heard by observers when walking on the island. Breeds on the island according to Macnae & Kalk (1969). A bird collected in 1957 is in the museum collection; others are in the museum in Maputo.

741 Brubru *Niniaus afer*

Two Brubrus were seen in March 1994 in the forest near Ponta Torres. Also seen by Herdam *et al.* (1981) on the Barreira Vermelha in July 1979 and listed by Vittery (1978) for February 1976.

742 Southern Tchagra *Tchagra tchagra*

An uncommon vagrant of the cultivated areas and semi-natural vegetation. Easily confused with the Threestreaked Tchagra, it was carefully identified by the authors; it lacked black eyebrow stripe and had uniform rufous brown wings. Difficult to spot because it hides in dense bush, and hence more often heard than seen. Inhaca is probably at the northern limit of its distribution. Also seen by Oliveira (1996).

743 Threestreaked Tchagra *Tchagra australis*

Present as a frequent resident. Prefers forest, semi-natural vegetation and dense bush. A breeding species according to Macnae & Kalk (1969). In the collections of both museums.

744 Blackcrowned Tchagra *Tchagra senegala*

A resident but infrequent bird of Inhaca. Most sightings are of pairs of birds. Occurs in forest and in abandoned cultivated areas (67% of all observations in semi-natural vegetation). Considered to be less abundant than the Threestreaked Tchagra by Da Rosa Pinto (1958).

747 Gorgeous Bush Shrike *Telophorus quadricolor*

This beautiful bird is common on Inhaca but difficult to see. Present all year in the forest, but somewhat more numerous in summer. Its call is characteristic and reveals its presence. TSCs range from one to seven.

748 Orangebreasted Bush Shrike *Telophorus sulfurepectus*

A frequent bird of the forest (74%), close to the MBS and semi-natural vegetation, where it is more easily seen than the previous species. Observations from every month except January and August. Maximum TSC of five birds. Macnae & Kalk (1969) confirmed breeding for Inhaca; on display at the museum.

750 Olive Bush Shrike *Telophorus olivaceus*

This shrike was only seen in the forest of

Inhaca in January, April and August; an uncommon resident, although mentioned as abundant by Da Rosa Pinto (1958) and listed by Kalk (1969), but not appearing on other lists.

751 Greyheaded Bush Shrike *Malala conotus bianchofi*

A common resident of the forest, seen near the MBS on several occasions but also in early December in the forest near Ponta Torres next to the camping site; in the museum collection.

760 Wattled Starling *Creatophora cinerea*

An uncommon visitor to Inhaca but seen in large groups on several occasions. Observations in December and January. A flock of more than 4000 birds was seen by one of the authors between the lighthouse and the hotel in December 1994 in the intertidal area and in branches of the *Avicennia* trees. Also listed by Vittery (1978).

761 Plumcoloured Starling *Cinnyricinclus leucogaster*

A common summer migrant to the island, mainly in mangroves and less frequently seen in the forests. Often observations of pairs of birds, a dull-coloured female together with the conspicuously coloured male. In both museum collections.

768 Blackbellied Starling *Lamprolornis corruscus*

The only glossy starling observed on the island. It is a common resident, seen in the mangroves of the Saco and north of the airport (65%) and in forests. The call is diagnostic and aids identification. TSCs range from two to 33. Flocks of a hundred observed by Da Rosa Pinto (1958). Also noted

in forests and around the MBS by Feijen & Feijen (1995a). The relative high abundance of this species led Da Rosa Pinto (1958) to suppose that they are the reason for the absence of the Glossy Starling *Lamprolornis niens*. In both museum collections.

780 Purplebanded Sunbird *Nectarinia bifasciata*

A common resident, more abundant than the next species. Seen often in the garden of the MBS, most of the time in pairs. Present in forest (35%), mangroves (43%) and semi-natural vegetation (20%). Prefers the *Albizia* according to Da Rosa Pinto (1958). Breeding mentioned by Macnae & Kalk (1969); present in the museum collection.

782 Neergaard's Sunbird *Nectarinia neergaardi*

Seen once feeding on the flowers of a *Croton tagal* tree in the mangroves between the MBS and Ponta Raza in November. This species, endemic to the coastal forest, is listed in the global Red Data Book as threatened. It was also listed by Berruti & Sinclair (1983) but not in other publications. It has marked seasonal movements (Clancey 1971).

787 Whitebellied Sunbird *Nectarinia talatala*

An uncommon resident of Inhaca's forests, seen around the MBS and at Ponta Torres. Also known from the mangrove forest but less numerous there; normally in pairs. Surprisingly not recorded by Da Rosa Pinto (1958), although appearing on more recent lists.

789 Grey Sunbird *Nectarinia varies*

Observed on several consecutive days in April 1994 in the forest and garden sur-

rounding the MBS; one record from February 1995; it also appears in the lists of Vittery (1978), Herdam *et al.* (1981), Nilsson (1990a) and Allan & Holtschhausen (1997).

790 Olive Sunbird *Nectarinia olivacea*

An uncommon sunbird on Inhaca seen only in the mangrove forests. It was also listed by Vittery (1978), Macnae & Kalk (1969), Nilsson (1988) who also caught and ringed one, and Allan & Holtschhausen (1997).

791 Scarletchested Sunbird *Nectarinia senegalensis*

Preferring gardens on the island, it is the most common sunbird of Inhaca, being seen all year round. Feeds from nectar from the parasitic plant *Erianthemum dregei* in the *Casuarina* trees opposite the MBS or in flowers of the *Apocynaceae* in the garden around the MBS and hotel. Defends territories during the summer breeding season with frequent aggressive encounters; species other than sunbirds (e.g. Blackeyed Bulbul) are also chased away. Breeds on the island (Macnae & Kalk 1969). In the museum collection.

792 Black Sunbird *Nectarinia amethystina*

A frequent visitor to the forest, less abundant in mangroves, somewhat more numerous in summer. In April a group of 30 birds (males and females) were seen together in the Saco mangroves. No earlier records for Inhaca.

793 Collared Sunbird *Antheptes colaris*

A common resident sunbird, observed in forest, semi-natural vegetation, mangroves and cultivated fields; more sightings in summer with TSCs between three (October) and

70 (March). Probably appears to be more numerous in summer because of breeding activity (V. Parker pers. comm.). Hunts for spiders and insects among dead leaves and in spider webs; has a preference for the fruits of the Bushstick Berry *Chrysanthemoides* (Feijen & Feijen 1995a). Breeds on the island (Macnae & Kalk 1969); and two specimens are in the NHM.

797 Yellow White-eye *Zosterops senegalensis*

A common and widespread resident, more numerous in summer. Seen in forest, cultivated fields and semi-natural vegetation but the highest preference is for mangroves (59% of all observations); where it gleans insects on (or under) the leaves of trees. Frequently observed in Cashew-nut and Mangrove trees. TSCs range from 10 (October, December) to 47 (March). Macnae & Kalk (1969) mentioned breeding records. Present in both museum collections.

801 House Sparrow *Passer domesticus*

According to Feijen & Feijen (1995a) it was introduced in the 1950s. A frequent resident of Inhaca, found around the human settlements such as the hotel area and the MBS, but also known from the lighthouse and Muchina Village where it breeds under the roof of the newly built hospital. Seen on very few occasions around the MBS. Only occurred in the TSCs in mangroves. Its population might be expanding because it was observed by earlier birdwatchers in small numbers (Vittery 1978; Herdam *et al.* 1981).

804 Greyheaded Sparrow *Passer griseus*

Seen on Inhaca around the MBS, Ponta Torres forest and near agricultural fields. An

uncommon resident, also appearing on other bird lists. Nesting reported by Allan & Holthausen (1997) in January.

807 Thickbilled Weaver *Amblyospiza albifrons*

Probably a frequent resident although most observations are for the period between August and December. Nests in the reedbeds in the swamps southeast of the MBS. TSCs range from two to 10 birds. One bird is in the museum collection at Inhaca; others are in Maputo.

808 Forest Weaver *Ploceus bicolor*

Recorded by Macnae & Kalk (1969) as a breeding species of Inhaca, but very few sightings since. A confirmation of its presence on Inhaca was obtained in January 1997 by Allan & Holthausen (1997).

810 Spectacled Weaver *Ploceus ocularis*

A common resident weaver, occurring in forest, mangroves, cultivated fields and freshwater swamps, singly or in pairs. Recorded throughout the year but most sightings from summer. Ringed by Nilsson (1988). It nests in the forest close to the light-house. Present in the museum collection.

811 Spottedbacked Weaver *Ploceus cucullatus*

An abundant resident. Nests in *Albizia adinatifolia* trees and in Coconut palms, such as the ones near Muchina Village. More numerous in TSCs from summer, when it is more conspicuous (V. Parker pers. comm.). Herdam *et al.* (1981) mentioned breeding (30 nests) in *Ficus sycamorus* trees near the hotel, and 50 nests near the MBS in *Casuarina* and Coconut Palm trees where they fed Cicadas to their young. Feijen & Feijen

(1995a) observed that the nests of other weavers at the MBS were deserted and these weavers retreated to the forest after the arrival of the Spottedbacked Weaver. Nests in the *Casuarina* trees opposite the MBS have been seen being robbed by a snake (S. Timba pers. comm.). Eggs are also seen eaten by House Crows which have severe difficulty getting access to the eggs while staying in top of the nest; they bow their heads to get in, or open the nest from the top, tearing the branches aside. A specimen is in the museum collection.

814 Masked Weaver *Ploceus velatus*

An abundant resident. Nest in colonies in the *Casuarina* trees at the MBS, hotel and lighthouse. Also nests in Coconut Palms; noisy in the breeding season. The most abundant weaver on cultivated fields (84% of 1823 Masked Weavers counted during the TSCs were in this habitat). Rice and maize are favoured during the harvest period when flocks of hundreds of birds are present. It is considered a pest at maize and rice crops. Hunted by children with catapults, stones and glue, and eaten when caught. Specimen in NHM.

815 Lesser Masked Weaver *Ploceus intermedius*

A common resident, especially in the swamps, sometimes in bush vegetation. Brooke & Tuer (1968) recorded this species in mangroves, where they nested. Specimen in NHM.

817 Yellow Weaver *Ploceus sub-aureus*

Not seen by the authors in the intensive observation period 1993-96, but nesting birds were recorded in March 1997 in the swamps southeast of the MBS. Not observed by Oliveira (1996), although earlier authors

Vitery (1978), Macnae & Kalk (1969) and Herdam *et al.* (1981) listed them for Inhaca. The population is apparently declining, because of the cutting of reedbeds for thatching and regular bush fires. Observations of nests in 1981 in the same reedbeds are from Herdam *et al.* (1981). Also mentioned by Da Rosa Pinto (1958) as the favourite host for the Diederik Cuckoo. A bird caught in 1957 is part of the museum's collection in Inhaca; another is in Maputo.

821 Redbilled Quelea *Quelea quelea*

Far more common on the mainland, three queleas were seen on Inhaca in March 1995 in the gardens surrounding the MBS and around the swamp; no earlier sightings. One subsequent observation is from January 1997 (Allan & Holthausen 1997).

822 Redheaded Quelea *Quelea erythroptus*

A flock of 55 Redheaded Quelea was observed once in bushes next to the swamp near the airport at the end of the 1994 summer; rare, but also recorded on other lists.

824 Red Bishop *Euplectes oryx*

A scarce resident of Inhaca's swamps where it also nests. Seen only in summer (October-March) with maximum count of 12. Responsible for crop damage in rice fields. More frequently recorded during the first part of the study than near the end. Not found by Da Rosa Pinto (1958), but one specimen is in the collection of the museum.

828 Redshouldered Widow *Euplectes axillaris*

An abundant resident of Inhaca's swamps (100% of observations); it is numerous and conspicuous. More than 160 birds have been counted in the swamps near the airport. This

species is probably expanding as no mention was made of it by earlier birdwatchers.

835 Green Twinspot *Mandingoa nitidula*

Macnae & Kalk (1969) listed the species for Inhaca, and Feijen & Feijen (1985) noted several observations between April and May 1979 in the forests. Described by Maclean (1993) as being an easily overlooked species. Four birds were seen regularly from July to September 1997.

842 Redbilled Firefinch *Lagonosticta senegala*

A frequent summer visitor, not observed in winter. Mostly in pairs. Often close to water, such as next to the swamps (56%) and a frequent visitor to the bird bath at the MBS. Seen also in the forests, where it mixes with waxbills. Maximum TSC of 20 in April. To his surprise, not found by Da Rosa Pinto (1958).

844 Blue Waxbill *Uraeginthus angolensis*

A widespread and common resident of all habitats except for the littoral zone. Usually in pairs or small groups. Also visits human settlements. Frequents the bird bath at MBS. Highest TSC of 13 in April. Not recorded on earlier birdlists from the 1950s to 1970s but seen by Herdam *et al.* (1981) and Oliveira (1996) and therefore certainly increasing in numbers.

846 Common Waxbill *Estrilda astrild*

A common resident bird, gregarious in flocks of five to 15 birds. Normally observed near swamps (91%) but also seen in forest, semi-natural vegetation and cultivated areas with grass. Maximum TSC of 91 birds in March; no observations in July during TSCs.

848 Grey Waxbill *Estrilda perreini*

The Grey Waxbill is known from the swamps, forests and cultivated fields (64%) near swamps; prefers somewhat drier habitat than the previous species and was, for instance, never seen in swamps during TSCs. Considered a common resident, absent in TSCs from August to December, but, contrary to these observations, Vittery (1978) mentioned only sightings between August and December, with 20 in November. Frequents the bird bath at the MBS. Breeding noted by Macnae & Kalk (1969). Specimen in NHM.

857 Bronze Mannikin *Spermestes cucullatus*

An abundant resident bird, widespread in all habitats except for the littoral zone; mostly in pairs or small groups. Occasionally in large groups especially in grass with *Panicum maximum*, while feeding on ripe seeds. Disliked by the local inhabitants, because large flocks of up to 150 birds occur in the rice plantations, where they are chased early in the morning by the noise of tins filled with small stones shaken by women. Nested on the island in January 1996 and probably a resident breeder. Hunted with glue by the children. One caught at the Saco is in the museum's collection at Inhaca (also in NHM).

858 Redbacked Mannikin *Spermestes bicolor*

A common to frequent resident of the forest where they feed on the ground of the forest

in open areas; gregarious in flocks of up to 45 birds, also seen in cultivated fields but always close to forest.

860 Pintailed Whydah *Vidua macroura*

A common resident, with sightings from forest (23%) and swamps (77%); seen in groups of eight to 10 birds with females numerically superior. More sightings in summer (see also Nilsson 1990b). A specimen caught at Ponta Raça is on display at the museum; others are in the Maputo NHM.

869 Yelloweyed Canary *Serinus mozambicus*

A common resident bird, normally in small parties in forest, swamps, semi-natural vegetation, cultivated fields, and even in mangoes (28%). The favourite food on the agricultural fields is pearl millet (*Sorghum*), which is common in the Ponta Torres fields. Around the MBS seen often in *Casuarina* trees. Hunted with glued branches and sold on the mainland in cages. Breeding mentioned by Macnae & Kalk (1969).

877 Bully Canary *Serinus sulphuratus*

A frequent resident, seen near mangroves or on the ground in the halophile vegetation between the forest and mangroves. Also frequent on cultivated fields. TSCs with equal preference for all five terrestrial habitats vary between two and 31 birds with no apparent seasonality. Specimen in the MBS and NHM collections.

Unconfirmed sightings

While searching through the available literature, several authors mentioned records of bird species which we decided to list separately because of the absence of sufficient information to confirm their presence on Inhaca.

- 75 Rufousbellied Heron *Ardeola rufiventris*. Feijen & Feijen (1995b).
- 130 Honey Buzzard *Pernis apivorus*. Vittery (1978), November 1976.
- 138 Ayres' Eagle *Hieraaetus ayresii*. Vittery (1978), December 1977, immature.
- 167 Pallid Harrier *Circus macrourus*. Inhaca lies outside its normal range. Feijen & Feijen (1997), July 1979.
- 173 European Hobby *Falco subbuteo*. Vittery (1978), November 1976 and 1977.
- Rock Kestrel *Falco tinnunculus*. Vittery (1978), November 1976.
- 182 Greater Kestrel *Falco rupicoloides*. Vittery (1978), November 1976.
- 183 Lesser Kestrel *Falco naumanni*. November 1976 by Vittery (1978), the only observations to date for Mozambique.
- 202 Blue Quail *Coturnix adansonii*. Feijen & Feijen (1995), who claimed that the population was expanding and that it nested on the island. No recent observations of this bird have been made.
- 231 Stanley's Bustard *Neotis denhami*. Feijen & Feijen (1995b). Inhaca could provide suitable habitat for this species, but it was not recorded by the authors.
- 259 Whitecrowned Plover *Vanellus albiceps*. Feijen & Feijen (1995b).
- 297 Spotted Dikkop *Burhinus capensis*. Feijen & Feijen (1995), nesting.
- 330 Roseate Tern *Sterna dougalli*. Feijen & Feijen (1995b).
- 343 African Skimmer *Rynchops flavirostris*. A vagrant to Inhaca, not seen recently but mentioned by Clancey (1971) as observed by J. de Little.
- 373 Grey Lourie *Corythaeoides color*. A common bird on the mainland; its occurrence listed by Feijen & Feijen (1995b).
- 420 Scarce Swift *Schoutedenapus myophtus*. Vittery (1978).
- 436 Greyhooded Kingfisher *Halcyon leucocephala*. Feijen & Feijen (1997), but probably Brownhooded Kingfishers.
- 450 Broadbilled Roller *Eurystomus glaucurus*. Vittery (1978), February 1976.
- 454 Scimitar-billed Woodhoopoe *Rhinopomastus cyanomelas*. Feijen & Feijen (1995b), August 1979.
- 466 White-eared Barbet *Stactolaema*

- leucotis*. Feijen & Feijen (1995b).
- 469 Redfronted Tinker Barbet *Pogonihus pusillus*. Vittery (1978) listed it as a possible, based on calls heard, February and May 1975.
 - 507 Redcapped Lark *Calandrella cinerea*. Vittery (1978), November 1977.
 - 560 Arrowmarked Babbler *Turdoides jardineii*. Vittery (1978), February 1976, Feijen & Feijen (1997).
 - 570 Yellowstreaked Bulbul *Phyllastrephus flavostriatus*. Vittery (1978), November 1977, regarded by him as doubtful.
 - 599 Henglin's Robin *Cossypha henglini*. Feijen & Feijen (1995b).
 - 635 Cape Reed Warbler *Acrocephalus gracirostris*. Feijen & Feijen (1995b).
 - 670 Walling Cisticola *Cisticola lais*. Vittery (1978), December 1977.
 - 718 Plainbacked Pipit *Anthus vaalensis*. Feijen & Feijen (1995).
 - 731 Lesser Grey Shrike *Lanius minor*. Feijen & Feijen (1997).
 - 783 Lesser Doublecollared Sunbird *Nectarinia chalybea*. Feijen & Feijen (1995b).
 - 805 Yellowthroated Sparrow *Petronia superciliosa*. Feijen & Feijen (1997), April 1980.
 - 813 Cape Weaver *Ploceus capensis*. Feijen & Feijen (1997).
 - 816 Golden Weaver *Ploceus xanthops*. Feijen & Feijen (1997).
 - 832 Longtailed Widow *Euplectes progne*. Macnae & Kalk (1969), but Clancey (1971) stated that this was based on faulty field determinations.
 - 834 Melba Finch *Pytilia melba*. Vittery (1978), August 1976.

Discussion

A total of 299 bird species has been recorded on Inhaca, i.e. 33% of the total number of birds recorded for southern Africa (Maclean 1993) or 55% of the 544 species which are recorded for Mozambique south of the Save River (Oliveira 1996). The Inhaca birds do not form a representative proportion of the 'average' Mozambican avian community, where 78% of the species are resident (Oliveira 1996), but only 40% are resident on Inhaca. This underlines the importance of Inhaca for Palearctic migratory birds and rare vagrants.

In Fig. 4 the status of the birds is depicted per habitat. Resident birds are typically found in the mangroves and all the terrestrial habitats. Intra-African migrants are found most often in the semi-natural vegetation and in the mangroves. The Palearctic migrants are, not surprisingly, most numerous in the littoral zone around Inhaca. The rarer, irregular visitors are commonly recorded from the littoral zone, swamps and forest. Resident birds are typically granivores and mixed feeders and are characterized by the low number of marine-invertebrate feeding species. Intra-African migrants are mostly insectivorous, which is not surprisingly as insect abundance is highly variable in the region. They feed less often on nectar and on marine organisms. On the other hand, Palearctic migrants feed most often on marine invertebrates and only a few are granivores, frugivores or insectivores. The low percentage in the last category, insectivores, is unexpected; possibly we overlooked some typical insectivorous Palearctic birds (Passeriformes)? The rarer vagrants are mostly the oceanic piscivores (petrels, albatrosses, etc.).

The feeding guilds of the Inhaca avian community are depicted in Fig. 5. Insectivores are the most common, totalling around 43%. Waterbirds, which include the piscivores and the birds feeding on marine invertebrates, are also common on Inhaca. It is possible to make a cross tabulation, calculating the percentage of species with a certain food category per habitat; the results are given also in Fig. 5. If one compares the percentage of a specific feeding strategy with the average, one can draw the following conclusions: birds of prey are more common in the forest and woodlands of Inhaca, and seen less often in open habitats and mangroves. Insectivores are typically found in forest, semi-natural vegetation and in the swampy areas. Granivores are commonly found in the agricultural fields and in the swamp vegetation. Birds with mixed feeding strategies are most common on the agricultural fields. Waterbirds including shorebirds, inhabit mangroves and the littoral zones. Nectarivores are found surprisingly often in the mangroves and less often than expected in the forest; the semi-natural vegetation is also visited by sunbirds.

The numbers of birds species per habitat could be calculated, but the observations were not randomly distributed over the island with equal time devoted per habitat, and are therefore biased. Relatively more observations were made around the main facilities at the MBS and in the intertidal area, because of other research interests. It is therefore preferable to analyze species richness per habitat using the standardized methods and time per habitat employed during TSCs. The total number of bird species observed during TSCs is 166, less than the

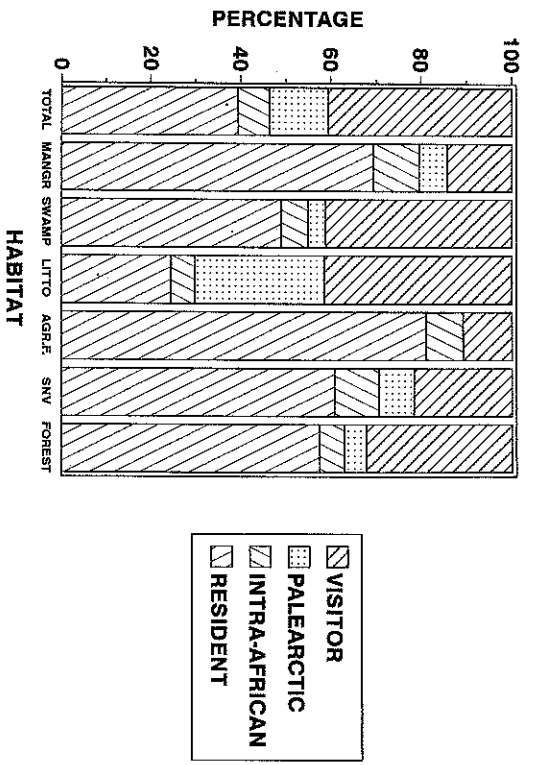


Fig. 4. The percentage of species in the different status classes for the island as a whole (total), the mangroves (mangr), swamps, littoral area (litt), agricultural fields (agr. f.), semi-natural vegetation (snv) and forest.

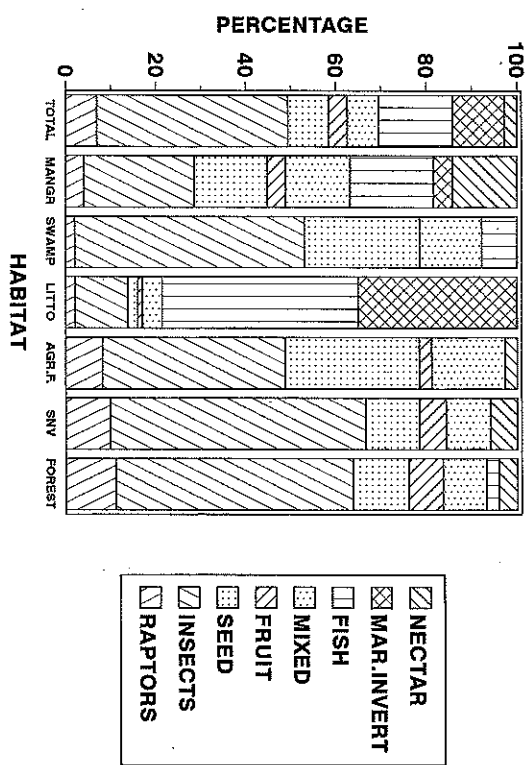


Fig. 5. The percentage of species per feeding group for the island as a whole (total), the mangroves (mangr), swamps, littoral area (litt), agricultural fields (agr. f.), semi-natural vegetation (snv) and forest.

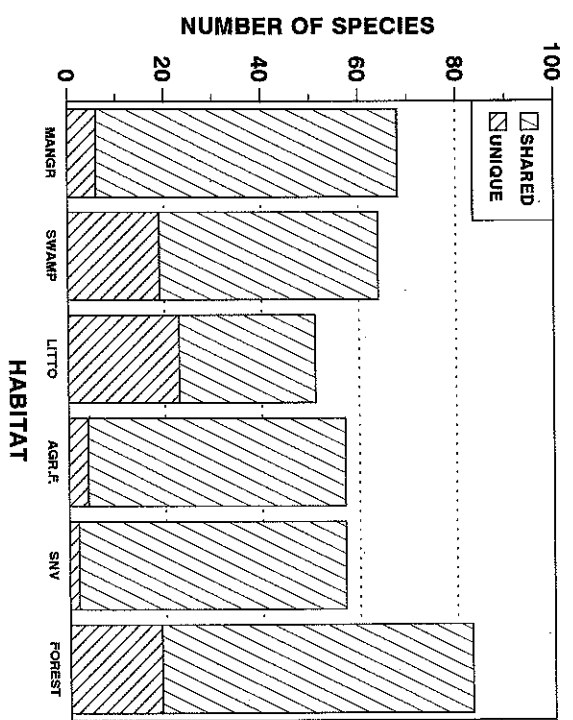


Fig. 6. Total number of species recorded per habitat, including the species unique to a particular habitat not recorded in other habitats (data from TSCs).

total number of the island but probably representative for the island as a whole. Counts were equally divided per habitat and two counts were made in every month in each habitat (Table 1 and Fig. 6). Forest is the richest habitat with 50% of all species recorded; the littoral is the poorest with only 31%. The littoral however has a large number of species which can only be seen in this zone. Therefore 23 species (14%) are unique to the littoral area and are not seen in other habitats; the highest percentage of all habitats. The semi-natural vegetation is the habitat with the lowest number of unique species

Table 1. Total number of species seen per habitat during TSCs, together with the total percentage, the number of unique species which were not seen in other habitats and the percentage of unique species (i.e. number of unique species/166).

Habitat	Total No.	% of Total	Unique spp	% Unique spp/total
Forest	83	50	19	11
Littoral	51	31	23	14
Agricultural Fields	57	34	4	2
Mangroves	68	41	6	4
Swamps	64	39	19	11
Semi-natural vegetation	57	37	2	1
INHACA	166	100		

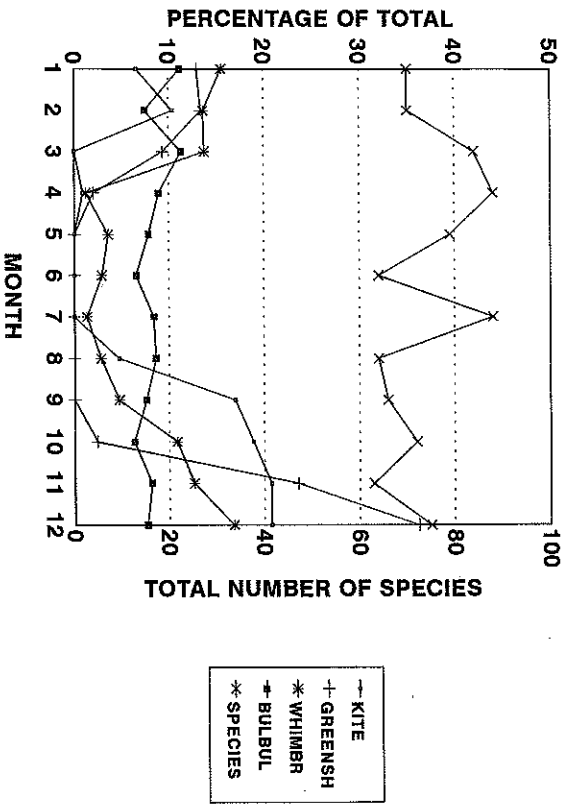


Fig. 7. Seasonal fluctuations, from January to December, of four species which serve as examples of the three seasonal classes: Blackkeyed Bulbul (resident), Greenshank and Whimbrel (Palearctic migrants, respectively without and with overwintering birds), and Yellowbilled Kite (intra-African migrant). The monthly percentage is given of the total numbers counted over the year. The second Y-axis gives the total number of species recorded during the TSC over the year.

and this is probably because the area is a vegetation mosaic with patches of fallow land in succession and bush patches, and, as such, many species are also found in other habitats such as the forest and agricultural fields (see also below). That the forest supports the richest community is not surprising, as it is a very rich biotope with the largest variety of plant species and also the one with the highest degree of structural variation: a clear humus layer, distinct grass, fern and herb cover, bushes, small and large trees which present different canopy layers. This three-dimensional structure offers more resources and niche dimensions than the other habitats, and is therefore the richest in bird species. It was expected that the mangrove forest would have possessed a high proportion of unique species, but this is not

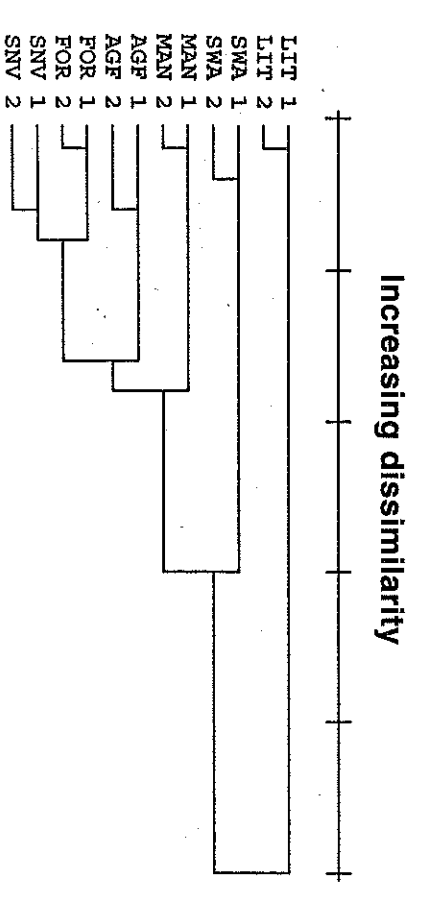


Fig. 8. Dendrogram of the two observation stations (1, 2) per habitat (lit = littoral, swa = swamp, man = mangrove, agf = agricultural fields, for = forest, snv = semi-natural vegetation). Moving from the left to the right in the figure, the stations and habitats are linked, starting with the most similar ones (e.g. the two stations 1 and 2 of the littoral zone) and ending with the least similar (littoral and all the others).

sified as abundant, followed by common (21.8%), frequent (10.7%), infrequent (2.8%), uncommon (11.8%), scarce (4.5%), rare (20.4%) and vagrant (23.5%). The low percentage of infrequent and scarce birds is probably related to the subjective biases of the authors, favouring other categories, and therefore no further analysis is pursued.

The total number of species seen per month in the TSCs is depicted in Fig. 7. The line does not show any clear pattern of arrival and departure by migratory birds. Intra-African migrants fill the gap created by the disappearance of Palearctic migrants. In Fig. 7, four examples have been given of birds representing different status classes (see also Appendix 1); resident birds are represented by the Blackkeyed Bulbul, although fluctuating somewhat, a total of around 1300 birds is seen in every month of the year. A typical example of a Palearctic migrant is given by the Greenshank. It disappears completely during winter, but other Palearctic migrants (e.g. the Whimbrel) overwinter in small numbers. A clear example of an intra-

African migrant is the Yellowbilled Kite; numbers start to increase in August and they disappear almost completely in March. Numbers do not say everything. Inhaca is special in that a large number of birds occur on the island that have relatively small global distributions and some of these are even endemic to the eastern African coastal zone. These rare species include Mangrove Kingfisher, Sooty Falcon, Southern Banded Snake Eagle, Crab Plover, Rudd's Apalis and Neergard's Sunbird. For some of the birds observed, Inhaca is near the southern or northern limit of their distribution, e.g. some of the albatrosses and petrels, the two species of oystercatchers, the Crab Plover and the Southern Tachyura. Eight species (see Appendix 3) recorded on Inhaca are listed in the Red Data Book (Collar & Stuart 1985) as threatened. These species give Inhaca an international significance and conservation responsibility. It should be stressed that the preservation of habitats is essential for the increasing agricultural pressure, fragmenta-

tion of the habitats, construction in sensitive areas (e.g. as in the mangroves of the Saco) and the impact of the enormous tourist activities proposed for the island (such as the marina at Ponta Raza) will, without doubt, negatively affect the bird community of Inhaca.

Some of the birds seen on the island were recorded there for the first time by the authors: Wandering Albatross, Darter, Black-crowned Night Heron, Abdim's Stork, Lesser Flamingo, Redbilled Teal, Southern Banded Snake Eagle, Black Crane, Dunlin, Blackwinged Stilt, Rameron Pigeon, Purple Roller, Brownthroated Martin, Desert Cisticola, Collared Flycatcher, Grey Cuckoo-shrike, Capped Wheatear, Brown and Starred Robins, Black Sunbird, Redbilled Quelea and Redshouldered Widow. The observations of Fleshfooted Shearwater and Roseringed Parakeet are the first for Mozambique. These records, together with the data on birds which have apparently disappeared, could yield some useful information regarding long-term trends on the island. The influence of the enlargement of the dune reserves in 1965 is not reflected in a large number of new sightings of typical dense coastal forest species. But this probably also needs more time, as the old agricultural fields included in the reserves are still several succession stages away from the climax vegetation. This better protection and expansion of the reserves also coincided with an increase in the human population (doubled in the last 20 years, Lopes 1991) and associated expanded land use. And this increasing human pressure is the only clear trend reflected in the data-set.

The appearance of larger numbers of House Sparrow, House Crow and Blue Waxbill, regular sightings of Feral Pigeons and recent occurrence of Redbilled Queleas, are related to the expansion of settlements on the island. Also the recent disappearance of the Yellow Weaver is probably related to higher human occupancy in the area. As the

birds use reedbeds for nesting, one can assume that the cutting of these dense reedbeds, used for roof thatching, is the explanation for their recent absence. In general, the swamp area is steadily decreasing; it is drained, cultivated and the natural vegetation is slowly disappearing. The area around the airport, east of the hotel, was once a large swamp. In the 1920s around 20% of the island could be classified as fresh water swamps (De Koning & Balkwill 1995). But it is clear that with the increase in the human population on the island (Kalk 1995a), the pressure on the natural vegetation is increasing with, as a consequence, smaller marsh patches. The population size of other swamp preferring birds is probably also affected; Black Crane and Red Bishop are nowadays less often recorded than a few years ago. The general practice of burning before cultivation also affects the avifauna. Bush fires in the swamp areas are frequent and many weaver nests were lost in a large fire in 1994 in the swamp area around the airport. It is our general impression that the bird species favouring the swamp areas will slowly disappear if these agricultural practices persist and the pressure on the land increases.

The disappearance of the Helmeted Guineafowl is probably also related to the higher human pressure on the island; the bird probably did not survive hunting pressures by the islanders. This also explains the decrease in the population size of Black-bellied Korhaan. But the frequent sightings at the moment of the highly conspicuous and resident bird, the Yellowbilled Stork, are unaccounted for.

In general, one should acknowledge that irregular sightings of vagrants and visitors are a natural phenomenon and do not always represent trends in a changing community structure.

The presence of the House Crow needs attention. Although it is bold and aggressive, we did not find any effect of this alien species on the avian community of the island.

It should be stressed that the unsuccessful attempts to eradicate the House Crow from Inhaca probably do more harm than good. The species becomes acquainted with the threat and adapts its behaviour. The risk of crows flying to the mainland increases. Some species are likely to have been overlooked, or could not be identified with certainty (e.g. some of the immature birds of prey, warblers, cisticolas and swallows). Some birds definitely breed on the island but are not listed as such because confirmation is required. The most rewarding place to look for new species is without doubt the dense dune forest in the east of the island. Also the extensive list of unconfirmed sightings is promising. After heavy storms the shoreline areas should be visited because such events bring albatrosses, petrels and species such as tropicbirds to the island. New species could easily be found. The narrow strait to the mainland, the similarity in habitats between Machangulo and Inhaca, and the regular sightings of birds flying to and from the mainland increase the chance of encountering new birds. Moreover, even at the end of the study period new species were being added to the list at the rate of about one per week.

Although the habitats differ for bird species, several species occur in more than one habitat. It is possible to calculate the similarity in bird communities between the different habitats. For this reason we only used the TSC data, as the observations were standardized and can be better compared. As mentioned in the Methods chapter, all habitats had two different observation stations, which were visited once every month. These data were used for a cluster analysis (Fig. 8); moving from the left to the right side in the figure, the areas are linked in order of similarity. So the two most similar areas are the two littoral TSC stations, followed by the two forest stations, the two mangroves stations and the two stations in respectively the swamps, the agricultural fields and the semi-

natural vegetation. Only after taking together both stations of each of the different habitats, the analysis links two different vegetation types, the forest and semi-natural vegetation. This indicates that the two stations per habitat (a comparison within the same habitat) were in all cases more similar than the similarity between different habitats, meaning that the stations were well chosen with a common avian community.

Two other trends are apparent from the data. Firstly, the terrestrial habitats are linked, the forest with the semi-natural vegetation, after which the agricultural fields are included. After linking the three terrestrial habitats, the more aquatic habitats are included in the analysis. The last habitat to be linked is the littoral zone, which in fact has a totally different avian community with only very few bird species (e.g. Grey Heron, crows and some raptors) in common with the terrestrial habitats.

The second pattern reflects the vegetation succession which can be observed in the field. Agricultural fields are cleared of the natural vegetation and after some years of cultivation, they are abandoned. A succession from pioneer plants to climax vegetation is the next step, with intact forest representing the last stage. Apparently the bird community structure represents this succession and is more different between the two extremes (forest and agricultural fields) with the semi-natural vegetation being an intermediate community between the two. As succession proceeds, the typical agricultural-field birds such as weavers, canaries, mannikins, and Rednecked Francolin and Hoopoe disappear gradually and are replaced by forest birds, such as owls, doves, barbets, hornbills and bush shrikes. The semi-natural vegetation is intermediate, a transition from one stage to the other. Another example of this phenomenon is that the semi-natural vegetation has the lowest percentage of birds unique to this habitat (see above).

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Appendix 1: Seasonal fluctuations

The cumulative numbers of birds per species in each month observed during Timed Species Counts (see Methods) are shown in this appendix.

	Roberts	J	F	M	A	M	J	J	A	S	O	N	D
<i>Pelecanus rufescens</i>	50	2	15	1	0	5	1	0	11	1	0	2	1
<i>Phalacrocorax carbo</i>	55	16	0	0	0	0	0	0	2	8	4	2	0
<i>Phalacrocorax capensis</i>	56	0	0	0	0	0	0	99	0	12	0	0	0
<i>Phalacrocorax africanus</i>	58	12	0	0	0	18	2	31	0	0	0	9	34
<i>Ambigua melanogaster</i>	60	0	0	0	0	0	0	0	0	24	0	0	0
<i>Ardea cinerea</i>	62	20	17	5	17	32	17	30	14	5	4	16	11
<i>Ardea melanocephala</i>	63	0	2	3	2	2	0	7	0	4	1	6	2
<i>Egretta garzetta</i>	67	76	79	96	30	126	23	45	21	28	18	12	17
<i>Egretta intermedia</i>	68	0	0	5	0	0	5	0	0	5	0	0	0
<i>Bubulcus ibis</i>	71	0	0	0	0	0	1	15	0	0	0	0	0
<i>Butorides striatus</i>	74	0	4	8	13	8	12	18	4	4	3	9	6
<i>Scopus umbretta</i>	81	0	0	0	0	0	0	0	1	0	0	0	0
<i>Ciconia episcopus</i>	86	0	0	0	4	10	0	2	0	0	0	0	0
<i>Mycteria ibis</i>	90	13	0	5	0	0	8	0	0	0	0	0	0
<i>Threskiornis aethiopicus</i>	91	0	0	19	26	7	22	50	9	1	0	0	0
<i>Bostrychia hagedash</i>	94	11	8	7	8	12	11	9	0	5	4	23	10
<i>Phoenicopterus ruber</i>	96	36	20	0	89	87	68	17	0	0	57	35	126
<i>Anas erythrorhyncha</i>	108	0	0	0	0	0	12	0	0	0	0	0	0
<i>Plectropterus gambensis</i>	116	0	0	0	0	0	0	2	0	0	0	4	0
<i>Milvus migrans parasitus</i>	126	7	11	0	1	0	0	0	5	18	20	22	22
<i>Elanus caeruleus</i>	127	0	0	0	0	1	0	0	0	0	0	0	0
<i>Aquila pomarina</i>	134	1	0	0	0	0	0	0	0	0	0	0	0
<i>Hieraaetus fasciatus</i>	137	1	0	0	0	0	0	0	0	0	0	0	0
<i>Circus chieruus</i>	142	0	0	0	0	0	0	1	0	0	0	0	0
<i>Circus gallicus</i>	143	0	0	0	2	2	0	1	0	0	0	1	1
<i>Haliaeetus vocifer</i>	148	0	0	0	1	0	0	1	0	1	1	0	2
<i>Kaupfalco monogrammicus</i>	154	0	1	1	1	1	3	2	0	0	0	0	0
<i>Polyboroides typus</i>	169	2	0	2	0	0	0	0	0	0	0	0	0
<i>Pandion haliaetus</i>	170	0	1	0	0	0	0	0	0	0	0	1	1
<i>Falco concolor</i>	175	0	0	0	1	0	0	0	0	0	0	0	0
<i>Francoelinus afer</i>	198	41	16	20	7	7	6	7	11	4	32	0	12
<i>Coturnix coturnix</i>	200	0	0	8	26	2	15	5	0	0	0	0	0
<i>Amaurornis flavirostris</i>	213	0	0	0	0	0	0	0	0	0	0	6	6
<i>Eupoditis melanogaster</i>	238	0	0	0	0	0	0	2	0	0	0	0	0

	Roberts	J	F	M	A	M	J	J	A	S	O	N	D
<i>Charadrius hiaticula</i>	245	0	8	5	10	0	0	0	0	0	0	2	0
<i>Charadrius marginatus</i>	246	0	112	0	5	3	6	27	7	0	2	5	0
<i>Charadrius tricoloratus</i>	249	0	0	0	0	0	0	0	0	0	9	0	0
<i>Charadrius mongolus</i>	250	4	0	0	0	0	0	0	0	4	0	10	0
<i>Charadrius leschenaultii</i>	251	0	0	0	4	0	0	0	0	0	0	0	0
<i>Puvialis squatarola</i>	254	15	31	35	72	0	0	0	0	12	23	35	4
<i>Arenaria interpres</i>	262	8	28	6	43	4	1	11	0	16	3	14	7
<i>Xenus cinereus</i>	263	9	0	10	35	0	0	0	0	0	0	0	0
<i>Tringa hypoleucos</i>	264	32	33	23	5	0	0	0	0	0	6	58	89
<i>Tringa glareola</i>	266	0	0	24	0	0	0	0	0	0	0	0	0
<i>Tringa stagnatilis</i>	269	0	0	17	0	0	0	0	0	0	0	0	0
<i>Tringa nebularia</i>	270	30	6	0	5	0	0	0	4	5	9	2	0
<i>Calidris canutus</i>	271	0	0	0	7	0	0	0	0	0	0	0	0
<i>Calidris ferruginea</i>	272	0	56	26	32	0	13	0	0	0	4	4	21
<i>Calidris minuta</i>	274	0	0	0	0	0	0	0	0	0	0	0	6
<i>Calidris alba</i>	281	0	33	0	25	0	0	0	3	38	4	0	16
<i>Philomachus pugnax</i>	284	0	0	0	0	0	0	0	0	0	2	0	0
<i>Limosa lapponica</i>	288	0	0	0	19	0	0	0	0	0	0	0	0
<i>Numerus phaeopus</i>	290	138	121	122	11	32	26	12	25	42	96	112	149
<i>Burhinus vermiculatus</i>	298	0	0	0	4	0	11	11	0	6	0	0	0
<i>Larus dominicanus</i>	312	0	0	0	0	17	0	0	0	0	0	0	0
<i>Larus cirrocephalus</i>	315	10	5	0	0	1	0	7	0	2	0	5	40
<i>Hydroprogne caspia</i>	322	10	5	0	15	13	1	1	32	11	1	0	4
<i>Sterna bergii</i>	324	0	12	3	17	2	0	1	0	0	0	0	56
<i>Sterna bengalensis</i>	325	0	1	0	0	0	0	0	0	0	0	0	0
<i>Sterna albifrons</i>	335	0	0	0	0	1	0	0	0	0	0	0	3
<i>Streptopelia semitorquata</i>	352	3	0	10	0	0	0	0	16	0	0	0	30
<i>Streptopelia capicola</i>	354	70	69	70	47	49	31	52	14	22	21	42	21
<i>Turtur chalcospilus</i>	358	28	15	14	17	21	7	9	16	8	6	3	7
<i>Treron caba</i>	361	7	11	20	0	3	2	2	5	0	0	0	8
<i>Cuculus solitarius</i>	377	0	0	0	0	2	0	0	0	0	0	0	0
<i>Chrysococcyx caprius</i>	386	0	0	0	0	0	0	0	0	0	0	1	1
<i>Ceuthocheilus aereus</i>	387	7	0	1	1	0	0	3	1	0	0	0	0
<i>Centropus superciliosus</i>	391	9	3	2	1	3	4	1	7	4	6	5	6
<i>Tyto alba</i>	392	0	0	0	0	0	0	3	0	0	0	0	0
<i>Otus leucotis</i>	397	0	0	2	0	0	0	0	0	0	0	0	0
<i>Bubo africanus</i>	401	0	0	0	0	0	0	0	0	0	0	1	0
<i>Apus caffer</i>	415	0	0	0	0	0	0	1	0	0	0	0	0
<i>Cypsiurus parvus</i>	421	0	0	0	0	0	0	1	0	0	0	0	0
<i>Cotinus indicus</i>	426	16	21	0	13	20	0	29	5	9	17	6	6
<i>Apaloderma narina</i>	427	0	0	0	0	0	0	2	0	0	0	0	0
<i>Ceryle rudis</i>	428	0	5	13	8	4	15	15	0	0	6	0	2
<i>Ceryle maxima</i>	429	0	0	0	0	0	0	0	2	0	0	0	0
<i>Alcedo cristata</i>	431	0	0	6	2	1	1	6	0	0	0	0	0
<i>Ispidina picta</i>	432	0	0	0	0	3	0	0	0	1	0	0	0

Appendix 2: Habitat preferences

This appendix contains the total number of birds for each species observed during the Timed Species Counts, and the percentage of this total that was present in each habitat type.

	Roberts	Total	For	Lit	Agr	Man	SWA	YSN
<i>Pelecanus rufescens</i>	50	39	0	82	0	18	0	0
<i>Platacororax carbo</i>	55	32	0	100	0	0	0	0
<i>Platacororax capensis</i>	56	111	0	100	0	0	0	0
<i>Platacororax affricanus</i>	58	106	0	42	0	58	0	0
<i>Ashinga melanogaster</i>	60	24	0	0	0	0	100	0
<i>Ardea cinerea</i>	62	188	45	52	0	4	0	0
<i>Ardea garzetta</i>	63	29	21	0	0	0	79	0
<i>Egretta garzetta</i>	67	571	0	65	0	34	1	0
<i>Egretta intermedia</i>	68	15	0	0	0	0	100	0
<i>Bubulcus ibis</i>	71	16	0	0	6	0	94	0
<i>Butorides striatus</i>	74	89	0	83	0	17	0	0
<i>Scopus umbretta</i>	81	1	0	100	0	0	0	0
<i>Ciconia episcopus</i>	86	16	0	25	0	19	56	0
<i>Mycteria ibis</i>	90	26	0	81	0	19	0	0
<i>Threskiornis aethiopicus</i>	91	134	0	68	0	8	24	0
<i>Bostrychia hagedash</i>	94	108	31	11	20	18	7	12
<i>Phoenicopterus ruber</i>	96	535	0	98	0	2	0	0
<i>Anas erythrorhynchos</i>	108	12	0	100	0	0	0	0
<i>Plectropterus gambensis</i>	116	6	0	0	0	0	100	0
<i>Mithus nigerrans parastius</i>	126	106	12	23	27	2	8	28
<i>Elaenus caeruleus</i>	127	1	100	0	0	0	0	0
<i>Aquila pomarina</i>	134	1	0	0	0	0	0	100
<i>Hieraaetus fasciatus</i>	137	1	0	0	0	0	100	0
<i>Circus cinereus</i>	142	1	0	0	100	0	0	0
<i>Circus gallicus</i>	143	6	0	0	0	17	67	17
<i>Haliaeetus vocifer</i>	148	6	0	17	33	50	0	0
<i>Kaupjalco monogrammicus</i>	154	9	11	0	22	11	56	0
<i>Polyboroides typus</i>	169	4	50	0	50	0	0	0
<i>Pandion haliaetus</i>	170	2	0	50	0	50	0	0
<i>Falco concolor</i>	175	1	0	100	0	0	0	0
<i>Francoelinus afer</i>	198	163	15	0	42	0	13	31
<i>Coturnix coturnix</i>	200	56	0	0	0	0	96	4
<i>Amaurornis flavirostris</i>	213	12	0	0	0	0	100	0
<i>Eupodotis melanogaster</i>	238	2	0	0	0	0	100	0

	Roberts	Total	For	Lit	Agr	Man	SWA	YSN
<i>Charadrius hiaticula</i>	245	25	0	60	0	40	0	0
<i>Charadrius marginatus</i>	246	167	0	100	0	0	0	0
<i>Charadrius trichollaris</i>	249	9	0	100	0	0	0	0
<i>Charadrius mongolus</i>	250	18	0	100	0	0	0	0
<i>Charadrius leschenaultii</i>	251	4	0	100	0	0	0	0
<i>Puffinus squatarola</i>	254	227	0	95	0	5	0	0
<i>Arenaria interpres</i>	262	141	0	97	0	3	0	0
<i>Xenus cinereus</i>	263	54	0	100	0	0	0	0
<i>Tringa hypoleucos</i>	264	246	0	76	0	24	0	0
<i>Tringa glareola</i>	266	24	0	100	0	0	0	0
<i>Tringa stagnatilis</i>	269	17	0	88	0	12	0	0
<i>Tringa nebularia</i>	270	61	0	93	0	7	0	0
<i>Calidris canutus</i>	271	7	0	100	0	0	0	0
<i>Calidris ferruginea</i>	272	156	0	90	0	10	0	0
<i>Calidris minuta</i>	274	6	0	100	0	0	0	0
<i>Calidris alba</i>	281	119	0	100	0	0	0	0
<i>Philiomachus pugnax</i>	284	2	0	100	0	0	0	0
<i>Limosa lapponica</i>	288	19	0	100	0	0	0	0
<i>Numenius phaeopus</i>	290	886	0	84	0	16	0	0
<i>Burhinus vermiculatus</i>	298	32	0	0	0	100	0	0
<i>Larus dominicanus</i>	312	17	0	100	0	0	0	0
<i>Larus cirrocephalus</i>	315	70	0	100	0	0	0	0
<i>Hydroprogne caspia</i>	322	93	0	100	0	0	0	0
<i>Sterna bergii</i>	324	98	0	100	0	0	0	0
<i>Sterna bergalensis</i>	325	1	0	100	0	0	0	0
<i>Sterna albifrons</i>	335	4	0	100	0	0	0	0
<i>Stercoraria semitorquata</i>	352	59	10	0	17	41	5	27
<i>Stercoraria capicola</i>	354	508	32	0	24	17	18	9
<i>Turtur chalcospilus</i>	358	151	50	0	24	4	3	19
<i>Tyrone calva</i>	361	58	12	0	9	0	0	79
<i>Cuculus solitarius</i>	377	2	100	0	0	0	0	0
<i>Chrysococcyx caprius</i>	386	377	0	0	0	0	100	0
<i>Ceuthnocharax aereus</i>	387	13	62	0	0	0	38	0
<i>Centropus superciliosus</i>	391	51	8	0	10	0	75	8
<i>Tyto alba</i>	392	3	100	0	0	0	0	0
<i>Otus leucotis</i>	397	2	100	0	0	0	0	0
<i>Bubo africanus</i>	401	1	100	0	0	0	0	0
<i>Apus caffer</i>	415	1	100	0	0	0	0	0
<i>Cypsiurus parvus</i>	421	1	100	0	0	0	0	0
<i>Colinus indicus</i>	426	142	41	0	10	18	0	31
<i>Apaloderma narina</i>	427	2	100	0	0	0	0	0
<i>Ceryle rudis</i>	428	68	0	28	0	72	0	0
<i>Ceryle maxima</i>	429	2	0	100	0	0	0	0
<i>Alcedo cristata</i>	431	16	0	44	6	38	13	0
<i>Ispidina picta</i>	432	4	75	0	25	0	0	0

	Roberts	Total	For	Lit	Agr	Man	SWA	VSN
<i>Halcyon senegaloides</i>	434	20	0	0	0	100	0	0
<i>Halcyon albiventris</i>	435	15	67	0	20	0	0	13
<i>Halcyon chelicuti</i>	437	2	50	0	0	0	50	0
<i>Merops persicus</i>	440	2	100	0	0	0	0	0
<i>Merops bullockoides</i>	443	15	0	0	0	0	100	0
<i>Merops pusillus</i>	444	64	5	0	20	0	34	41
<i>Coracias caudata</i>	447	4	0	0	0	0	100	0
<i>Upupa epops</i>	451	4	0	0	50	0	25	25
<i>Bucanistes buchinator</i>	455	153	78	0	14	0	0	8
<i>Toxokus albobeternatus</i>	460	4	100	0	0	0	0	0
<i>Lybius torquatus</i>	464	59	49	0	20	10	10	10
<i>Pogonius bilineatus</i>	471	142	93	0	1	1	0	5
<i>Hirundo rustica</i>	518	437	14	3	20	3	52	9
<i>Pseudhirundo griseopygia</i>	531	8	50	0	0	0	50	0
<i>Riparia riparia</i>	532	51	24	0	14	22	25	16
<i>Riparia pulchicollis</i>	533	11	0	0	100	0	0	0
<i>Riparia cinerea</i>	534	40	0	0	25	23	53	0
<i>Psittidoprogne holomelas</i>	536	91	69	0	5	0	15	10
<i>Campephaga flava</i>	538	15	13	0	33	0	40	13
<i>Corachna caesia</i>	540	1	100	0	0	0	0	0
<i>Dicrurus adsimilis</i>	541	90	83	0	8	0	1	8
<i>Dicrurus ludwigii</i>	542	90	64	0	13	1	0	21
<i>Corvus albus</i>	548	108	21	2	7	10	50	9
<i>Corvus splendens</i>	549	278	0	13	3	75	0	9
<i>Pycnonotus barbatus</i>	568	1300	24	0	32	15	7	23
<i>Phyllastrephus terrestris</i>	569	369	92	0	0	0	0	8
<i>Andropadus impotunus</i>	572	526	49	0	1	14	0	35
<i>Saricola torquata</i>	596	98	0	0	0	0	100	0
<i>Cossypha natalensis</i>	600	139	91	0	1	0	0	9
<i>Erythropygia leucophrys</i>	613	8	38	0	38	0	0	25
<i>Acrocephalus arundinaceus</i>	628	2	0	0	0	0	0	100
<i>Bradypterus barratti</i>	639	1	100	0	0	0	0	0
<i>Schoenicola brevisoritis</i>	642	2	0	0	0	0	100	0
<i>Apalis flavida</i>	648	87	84	0	0	16	0	0
<i>Camaroptera brachyura</i>	657	92	77	0	7	0	4	12
<i>Cisticola juncidis</i>	664	14	0	0	0	0	100	0
<i>Cisticola chiniana</i>	672	156	2	0	22	0	29	47
<i>Cisticola natalensis</i>	678	1	100	0	0	0	0	0
<i>Prinia subflava</i>	683	189	24	0	19	6	40	11
<i>Muscicapa adusta</i>	690	15	87	0	7	0	0	7
<i>Melanornis pammelatina</i>	694	31	87	0	0	3	0	10
<i>Melanornis pallidus</i>	696	1	0	0	100	0	0	0
<i>Sigelus stiers</i>	698	2	0	0	100	0	0	0
<i>Batis molitor</i>	701	267	31	0	6	38	1	24
<i>Playsteira pelata</i>	705	4	100	0	0	0	0	0

	Roberts	Total	For	Lit	Agr	Man	SWA	VSN
<i>Trochocercus cyanomelas</i>	708	10	100	0	0	0	0	0
<i>Terpsiphone viridis</i>	710	63	57	0	5	24	0	14
<i>Motacilla capensis</i>	713	14	0	0	0	0	100	0
<i>Anthus cinnamomeus</i>	716	69	0	7	4	41	48	0
<i>Macronyx croceus</i>	728	77	0	0	0	0	100	0
<i>Lanius collaris</i>	732	15	0	0	0	0	100	0
<i>Dryoscopus cubla</i>	740	157	64	0	6	4	0	27
<i>Nilius afer</i>	741	2	100	0	0	0	0	0
<i>Tchagra tchagra</i>	742	14	0	0	43	0	0	57
<i>Tchagra australis</i>	743	15	100	0	0	0	0	0
<i>Tchagra senegalata</i>	744	9	22	0	11	0	0	67
<i>Telophorus quadricolor</i>	747	29	100	0	0	0	0	0
<i>Telophorus sulfurepectus</i>	748	38	74	0	0	0	0	26
<i>Creatorophora chirena</i>	760	5850	1	68	0	26	4	0
<i>Cinnyricinclus leucogaster</i>	761	30	0	0	0	100	0	0
<i>Lamprolomis corrucuscus</i>	768	179	12	0	0	65	0	23
<i>Nectarinia bifasciata</i>	780	54	35	0	2	43	0	20
<i>Nectarinia neergariti</i>	782	2	0	0	0	100	0	0
<i>Nectarinia veroxii</i>	789	2	100	0	0	0	0	0
<i>Nectarinia olivacea</i>	790	7	0	0	0	100	0	0
<i>Nectarinia senegalensis</i>	791	227	37	0	9	33	3	17
<i>Nectarinia amethystina</i>	792	40	75	0	0	25	0	0
<i>Antheptes collaris</i>	793	359	40	0	1	18	0	42
<i>Zosterops senegalensis</i>	797	309	23	0	6	59	0	13
<i>Passer domesticus</i>	801	5	0	0	0	100	0	0
<i>Amblyospiza albifrons</i>	807	22	0	0	0	0	100	0
<i>Ploceus ocularis</i>	810	220	24	0	50	8	8	10
<i>Ploceus cucullatus</i>	811	310	10	0	74	5	11	0
<i>Ploceus velatus</i>	814	1823	4	0	84	1	9	2
<i>Quelea erythrops</i>	822	40	0	0	0	0	100	0
<i>Euplectes orix</i>	824	24	0	0	0	0	100	0
<i>Euplectes axillaris</i>	828	814	0	0	0	0	100	0
<i>Lagonosticta senegalata</i>	842	34	26	0	0	12	56	6
<i>Uraeginthus angolensis</i>	844	21	19	0	10	10	52	10
<i>Estrilda astrild</i>	846	325	7	0	0	1	91	1
<i>Estrilda perreiri</i>	848	56	36	0	0	0	0	64
<i>Sperniestes cucullatus</i>	857	1099	7	0	18	4	69	2
<i>Sperniestes bicolor</i>	858	69	23	0	74	0	0	3
<i>Vidua macroura</i>	860	13	23	0	0	0	77	0
<i>Serinus mozambicus</i>	869	400	20	0	35	28	9	8
<i>Serinus sulphuratus</i>	877	132	23	0	30	10	25	11

Appendix 3: Red Data Book species on Inhaca Island

These species which have occurred on Inhaca Island are listed by Collar & Stuart (1985) as threatened.

Species	Status
<i>Spheniscus demersus</i>	of special concern
<i>Morus capensis</i>	candidate
<i>Ephippiorhynchus senegalensis</i>	candidate
<i>Circus fasciolatus</i>	near-threatened
<i>Haematopus moquini</i>	near-threatened
<i>Apalis ruddi</i>	near-threatened
<i>Batis fratrum</i>	near-threatened
<i>Nectarinia neergardi</i>	near-threatened

Appendix 4: Checklist of the birds of Inhaca, with English and Portuguese names

The Portuguese names are from Da Rosa Pinto (1965), Tello (1973) and Oliveira (1996).

<input type="checkbox"/>	3	Jackass Penguin	Pinguim do Cabo
<input type="checkbox"/>	10	Wandering Albatross	Albatroz grande
<input type="checkbox"/>	11	Shy Albatross	Albatroz arisco
<input type="checkbox"/>	12	Blackbrowed Albatross	Albatroz preto acastanhado
<input type="checkbox"/>	14	Yellow nosed Albatross	Albatroz de narinas amarelas
<input type="checkbox"/>	17	Southern Giant Petrel	Fulmar gigante
<input type="checkbox"/>	21	Pintado Petrel	Pombo do cabo
<input type="checkbox"/>	23	Greatwinged Petrel	Painho de bico curto
<input type="checkbox"/>	24	Softplumaged Petrel	Painho
<input type="checkbox"/>	27	Kerguelen Petrel	Painho de Kerguelen
<input type="checkbox"/>	29	Broadbilled Prion	Painho filtrador de bico largo
<input type="checkbox"/>	32	Whitechinned Petrel	Fulmar de queixo branco
<input type="checkbox"/>	36	Fleshfooted Shearwater	Tosquia aquatica de patas carnuadas
<input type="checkbox"/>	41	Wedgetailed Shearwater	Tosquia do pacifico
<input type="checkbox"/>	42	European Storm Petrel	Petrel das trovoadas
<input type="checkbox"/>	44	Wilson's Storm Petrel	Petrel de Wilson
<input type="checkbox"/>	46	Blackbellied Storm Petrel	Petrel das trovoadas de bico preto
<input type="checkbox"/>	47	Redtailed Tropicbird	Ave tropical de cauda vermelha
<input type="checkbox"/>	48	Whitetailed Tropicbird	Ave tropical de cauda branca
<input type="checkbox"/>	50	Pinkbacked Pelican	Pelicano cinzento
<input type="checkbox"/>	53	Cape Gannet	Ganso patola do cabo
<input type="checkbox"/>	54	Australian Gannet	Ganso patola de Austrálie
<input type="checkbox"/>	55	Whitebreasted Cormorant	Corvo marinho de faces brancas
<input type="checkbox"/>	56	Cape Cormorant	Corvo marinho do cabo
<input type="checkbox"/>	58	Reed Cormorant	Corvo marinho Africano
<input type="checkbox"/>	60	Darter	Mergulhão serpente
<input type="checkbox"/>	61	Greater Frigatebird	Ave fragata maior
<input type="checkbox"/>	922	Lesser Frigatebird	Ave fragata menor
<input type="checkbox"/>	62	Grey Heron	Garça real
<input type="checkbox"/>	63	Blackheaded Heron	Garça de pescoco negro
<input type="checkbox"/>	64	Goliath Heron	Garça gigante
<input type="checkbox"/>	66	Great White Egret	Garça branca grande
<input type="checkbox"/>	67	Little Egret	Garça branca

68	Yellowbilled Egret		Garceta de bico amarelo
71	Cattle Egret		Carraceira
74	Greenbacked Heron		Garça de costas verdes
76	Blackcrowned Night Heron		Goraz noturna
79	Dwarf Bittern		Garça pequena
81	Hamerkop		Pássaro martelo
83	White Stork		Cegonha branca
85	Abdim's Stork		Cegonha de barriga branca
86	Woollynecked Stork		Cegonha de pesocoço branco
88	Saddlebilled Stork		Jabiru
90	Yellowbilled Stork		Cegonha de bico amarelo
91	Sacred Ibis		Íbis sagrado
94	Hadedda Ibis		Singanga
96	Greater Flamingo		Flamingo
97	Lesser Flamingo		Flamingo menor
108	Redbilled Teal		Pato de bico vermelho
116	Spurwinged Goose		Pato ferrão
118	Secretarybird		Secretário
126	Yellowbilled Kite		Milhafre de bico amarelo
126	Black Kite		Milhafre negro
127	Blackshouldered Kite		Peneireiro cinzento
128	Cuckoo Hawk		Açor cuco
134	Lesser Spotted Eagle		Águia pequena
137	African Hawk Eagle		Águia africana
140	Marital Eagle		Águia marcial
142	Brown Snake Eagle		Águia cobreira cinzenta
143	Blackbreasted Snake Eagle		Águia cobreira
144	Southern Banded Snake Eagle		Águia cobreira do sul
146	Bateleur		Águia rabota
148	African Fish Eagle		Pigargo canoro
149	Steppe Buzzard		Falcão papa da estepe
154	Lizard Buzzard		Açor lagartos
157	Little Sparrowhawk		Gavião pequeno
159	Little Banded Goshawk		Açor
160	African Goshawk		Açor africano
161	Gabar Goshawk		Gavião de gabar
169	Gymnogene		Falcão listrado
170	Osprey		Águia pesqueira
172	Lanner Falcon		Falcão biarmado
175	Sooty Falcon		Falcão cor de foligem
177	Eleonora's Falcon		Falcão eleonora
179	Western Redfooted Falcon		Falcão de pés vermelhos ocidental
180	Eastern Redfooted Falcon		Falcão de pés vermelhos oriental
198	Rednecked Francolin		Perdiz africana
200	Common Quail		Codorniz
203	Helmeted Guineafowl		Galinha do maro
213	Black Crake		Frango d'água de bico amarelo

238	Blackbellied Korihaan		Abetarda de peito preto
243	European Oystercatcher		Ostraceiro europeu
244	African Black Oystercatcher		Ostraceiro africano preto
245	Ringed Plover		Borrelho grande de coleira
246	Whitethroated Plover		Borrelho de peito branca
248	Kirititz's Plover		Borrelho de testa branca
249	Threebanded Plover		Borrelho de três colares
250	Mongolian Plover		Borrelho Manguço
251	Sand Plover		Borrelho da areia
254	Grey Plover		Tarambola prateada
262	Turnstone		Rola do mar
263	Terek Sandpiper		Maçarico de penas amarelas
264	Common Sandpiper		Maçarico das rochas
266	Wood Sandpiper		Maçarico de florestas
267	Spotted Redshank		Maçarico de patas vermelhas
269	Marsh Sandpiper		Maçarico dos pântanos
270	Greenshank		Perna-verde
271	Knot		Maçarico atador
272	Curlew Sandpiper		Pilrito de bico comprido
273	Dunlin		Maçarico alpinho
274	Little Stint		Pilrito anão
281	Sanderling		Pilrito branco
283	Broadbilled Sandpiper		Maçarico de bico largo
284	Ruff		Brigão
288	Bartailed Godwit		Fuselo
289	Curlew		Maçarico real
290	Whimbrel		Maçarico galego
295	Blackwinged Stilt		Perna longa
296	Crab Plover		Tarambola caranguejeira
298	Water Dikkip		Alcarvão de água
307	Arctic Skua		Squa ártica
309	Pomarine Skua		Squa pomarina
310	Antarctic Skua		Squa subantarctica
312	Kelp Gull		Gaiivota de costa pretas
313	Lesser Blackbacked Gull		Gaiivota de costa preta menor
315	Greyheaded Gull		Gaiivota de cabeça cinzenta
322	Caspian Tern		Gaiivota de bico vermelho
324	Swift Tern		Andorinha do mar de Bergii
325	Lesser Crested Tern		Andorinha do mar de Bengala
326	Sandwich Tern		Garzian
327	Common Tern		Andorinha do mar comum
331	Blacknaped Tern		Gaiivota de nuca preta
332	Sooty Tern		Andorinha do mar escura
333	Bridled Tern		Andorinha do mar
335	Little Tern		Andorinha do mar anã
339	Whitewinged Tern		Andorinha do mar anã
348	Feral Pigeon		Pombo bravo

350	Rameron Pigeon	Pombo ramerone
352	Redeyed Dove	Rola de olho vermelho
354	Cape Turtle Dove	Rola do Cabo
355	Laughing Dove	Rola comum
358	Greenspotted Dove	Rola esmeralda
359	Tambourine Dove	Rola de papo branco
361	Green Pigeon	Pombo verde
363	Brownheaded Parrot	Papagaio de cabeça castanha
366	Roseringed Parakeet	Periquito de argola rosada
377	Redchested Cuckoo	Cuco solitário
384	Emerald Cuckoo	Cuco esmeraldino
385	Klaas's Cuckoo	Cuco de Klaas
386	Diederik Cuckoo	Cuco bronzeado maior
387	Green Coucal	Cuco verde
391	Burchell's Coucal	Cuco de sobrancelhas brancas
392	Barn Owl	Coruja das Torres
396	African Scops Owl	Moocho do Ano Bom
397	Whitetailed Owl	Moocho de cara branca
398	Pearlspotted Owl	Moochinho perlado
399	Barred Owl	Moocho pequeno
401	Spotted Eagle Owl	Coruja africano
405	Fieynecked Nightjar	Noitibó de colar
409	Mozambique Nightjar	Noitibó de Moçambique
411	European Swift	Ferreiro da Europa
412	Black Swift	Ferreiro negro
415	Whiterumped Swift	Ferreiro de rabadilha branca
416	Horus Swift	Ferreiro arus
417	Little Swift	Ferreiro pequeno
421	Palm Swift	Ferreiro cinzento
424	Speckled Mousebird	Rabo de junco
426	Redfaced Mousebird	Rabo de junco de face vermelha
427	Narina Trogon	Republicano
428	Pied Kingfisher	Pica peixe branco
429	Giant Kingfisher	Pica peixe gigante
431	Malachite Kingfisher	Pica peixe de cristal
432	Pygmy Kingfisher	Pica peixe anão
434	Mangrove Kingfisher	Pica peixe do mangal
435	Brownhooded Kingfisher	Pica peixe de ventre branco
437	Striped Kingfisher	Pica peixe castanho
438	European Bee eater	Abelharuco da europa
439	Olive Bee eater	Abelharuco persa
440	Bluecheeked Bee eater	Abelharuco pérsico
443	Whitetailed Bee eater	Abelharuco de garganta vermelha
444	Little Bee eater	Abelharuco anão
447	Blachreasted Roller	Rolheiro de peito lilás
449	Purple Roller	Rolheiro púrpuro
451	Hoopoe	Poupa

455	Trumpeter Hornbill	Calau trompeteiro
457	Grey Hornbill	Calau cinzento
460	Crowned Hornbill	Calau corado
464	Blackcollared Barbet	Barbeto vermelho
471	Goldenrumped Tinker Barbet	Barbeto de coroa negra
474	Greater Honeyguide	Pássaro do mel
476	Lesser Honeyguide	Indicador pequeno
478	Sharpbilled Honeyguide	Indicador de bico afiado
483	Golden-tailed Woodpecker	Pica pau de rabo doitrado
486	Cardinal Woodpecker	Pica pau cardeal
487	Bearded Woodpecker	Pica pau de bigodes
494	Rufousnaped Lark	Cotovia africana
518	European Swallow	Andorinha das chaméas
522	Wretailed Swallow	Andorinha de Smith
524	Redbreasted Swallow	Andorinha de peito vermelho
527	Lesser Striped Swallow	Andorinha de Abissínia
530	House Martin	Andorinha dos beirais
531	Grey-rumped Swallow	Andorinha de rabadilha cinzenta
532	Sand Martin	Andorinha das barreiras
533	Brownthroated Martin	Andorinha de pescoco castanho
534	Banded Martin	Andorinha de areia
536	Black Sawwing Swallow	Andorinha negra
537	Eastern Sawwing Swallow	Andorinha negra oriental
538	Black Cuckoosrike	Cuco amarelo
540	Grey Cuckoosrike	Lagarteira cinzenta
541	Forktailed Drongo	Drongo de cauda em forquilha
542	Squaretailed Drongo	Drongo de cauda quadrada
545	Blackheaded Oriole	Papa figos de cabeça preta
548	Pied Crow	Corvo branco
549	House Crow	Corvo indiano
568	Blackeyed Bulbul	Tuinegra
569	Terrestrial Bulbul	Tuta da terra
572	Sombre Bulbul	Tuta sombria
574	Yellowbellied Bulbul	Tuta amarela
576	Kurichane Thrush	Chicharro
587	Capped Wheatear	Chiada de livinston
589	Familiar Chat	Cavaqueira
596	Stonechat	Chasco preto
600	Natal Robin	Pisco do natal
602	Whitethroated Robin	Pisco de peito branco
606	Starred Robin	Tordo estrelado
613	Whitebrowed Robin	Torda de peito estriado
616	Brown Robin	Pintaroxo castanho
619	Garden Warbler	Felosa das figueiras
628	Great Reed Warbler	Rouxinol grande dos caníças
631	African Marsh Warbler	Rouxinol africano
633	European Marsh Warbler	Rouxinol do pântano

637	Yellow Warbler	Rouxinol amarelo
643	Willow Warbler	Rouxinol salgueiro
648	Yellowbreasted Apalis	Ápalis de peito amarelo
649	Rudd's Apalis	Ápalis de Rudd
651	Longbilled Crombec	Carriça de cauda curta
655	Greencapped Eremomela	Rouxinol de cabeça verde
657	Green backed Bleating Warbler	Carriça verde
664	Fantailed Cisticola	Fuinha dos juncos
665	Desert Cisticola	Cisticola do deserto
672	Ratling Cisticola	Fuinha comum
674	Redfaced Cisticola	Fuinha de faces ruivas
681	Neddikey	Chiana de cabeça ruiva
683	Tawnyflanked Prinia	Prinia
689	Spotted Flycatcher	Papa mosca estrizada
690	Dusky Flycatcher	Papa mosca sombrio
691	Bluegrey Flycatcher	Papa mosca cinzenta
692	Collared Flycatcher	Papa mosca de colar
694	Black Flycatcher	Papa moscas preta
696	Mousecoloured Flycatcher	Papa moscas castanha
698	Fiscal Flycatcher	Papa mosca picanço
701	Chinspot Batis	Papa mosca de flancos brancos
704	Woodwards' Batis	Papa mosca de Moçambique
705	Wattle eyed Flycatcher	Papa moscas de carínacula
708	Bluemantled Flycatcher	Papa moscas de crista
710	Paradise Flycatcher	Papa moscas do paraso
711	African Pied Wagtail	Alvéola preta e branca
713	Cape Wagtail	Alvéola do Cabo
716	Grassveld Pipit	Calhandra do campizal
722	Tree Pipit	Calhandra das árvores
728	Yellowthroated Longclaw	Unha longa amarela
730	Pinkthroated Longclaw	Unha longa de peito rosado
732	Fiscal Shrike	Picango de colar
736	Southern Boubou	Picango ferrugíneo
740	Puffback	Picango de olho vermelho
741	Brubru	Brubru
742	Southern Tchagra	Picango do sul
743	Threestreaked Tchagra	Picango de cabeça castanha
744	Blackcrowned Tchagra	Picango assoviador
747	Gorgeous Bush Shrike	Picango das quatro cores
748	Orangebreasted Bush Shrike	Picango de peito alaranjado
750	Olive Bush Shrike	Picango olivácea
751	Greyheaded Bush Shrike	Picango de cabeça cinzenta
760	Wartled Starling	Estorinho cinzento
761	Plumcoloured Starling	Estorinho de ventre branco
768	Blackbellied Starling	Estorinho azul
780	Purplebanded Sunbird	Beija flor de peito roxo
782	Neergaard's Sunbird	Beija flor de Neergardi

787	Whitebellied Sunbird	Beija flor de barriga branca
789	Grey Sunbird	Beija flor cinzento
790	Olive Sunbird	Beija flor oliváceo
791	Scarletchested Sunbird	Beija flor de peito escarlate
792	Black Sunbird	Beija flor amarela de kirk
793	Collared Sunbird	Beija flor de barriga amarela
797	Yellow White eye	Chio amarelo
801	House Sparrow	Pardal comum
804	Greyheaded Sparrow	Pardal de cabeça cinzenta
807	Thickbilled Weaver	Tecelão de bico grosso
808	Forest Weaver	Tecelão da floresta
810	Spectacled Weaver	Tecelão de lunetas
811	Spottedbacked Weaver	Tecelão malhado
814	Masked Weaver	Tecelão mascarado
815	Lesser Masked Weaver	Tecelão de cabanis
817	Yellow Weaver	Tecelão amarelo
821	Redbilled Quelea	Pardal de bico vermelho
822	Redheaded Quelea	Quelea de cabeça vermelho
824	Red Bishop	Cardal tecelão
828	Redshouldered Widow	Viúva de espáduas vermelhas
835	Green Twinspot	Pintadinha de costas verdes
842	Redbilled Firefinch	Peito de fogo pequeno
844	Blue Waxbill	Peito celeste
846	Common Waxbill	Bico de lacte comum
848	Grey Waxbill	Cinzentinho ou Rabo de vinagre
857	Bronze Mannikin	Freirinha
858	Redbacked Mannikin	Freirinha de cabeça preta
860	Pintailed Whydah	Viuvinha malhada
869	Yelloweyed Canary	Xerico ou Canário de Moçambique
877	Bully Canary	Xerico grande

