# Discover Seychelles' BIRDS





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# **Acknowledgements**

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# **Discover Seychelles' BIRDS**

#### **CONTENTS**

INTRODUCTION	1
WHATISABIRD?	2
ENDEMIC, NATIVE AND INTRODUCED	4
BIRD HABITATS	5
WHY DO BIRDS MATTER?	6
BIRD CONSERVATION	6
WHAT TO DO WITH BABY BIRDS	8
WATCHING BIRDS	8
HOW THIS BOOK IS LAID OUT	10
TECHNICAL TERMS USED IN THE TEXT	12
NATIVE AND ENDEMIC LAND BIRDS	14
GREYHERON	15
CHINESE OR YELLOW BITTERN	16
GREEN-BACKED HERON	17
BLACK-CROWNED NIGHT HERON	18
CATTLE EGRET	19
MOORHEN	20
SEYCHELLES KESTREL	21
MADAGASCAR TURTLE DOVE	22
SEYCHELLES BLUE PIGEON	23
BLACK PARROT	24
SEYCHELLES SCOPS OWL	25
SEYCHELLES SWIFTLET	26
SEYCHELLES BULBUL	27
SEYCHELLES MAGPIE ROBIN	28
SEYCHELLES WARBLER	29
SEYCHELLES PARADISE FLYCATCHER	30
SEYCHELLES SUNBIRD	31
SEYCHELLES WHITE-EYE	32
SEYCHELLES FODY	33

INTRODUCED LAND BIRDS	34
ROSE-RINGED PARAKEET OR RING-NECKED PARAKEET	35
BARN OWL	36
BARRED GROUND DOVE	37
FERALPIGEON	38
COMMON WAXBILL	39
MADAGASCAR FODY	40
HOUSE SPARROW	41
COMMON MYNAH OR INDIAN MYNA	42
SEABIRDS	43
WEDGE-TAILED SHEARWATER	44
AUDUBON'S SHEARWATER	45
WHITE-TAILED TROPICBIRD	46
RED-TAILED TROPICBIRD	47
GREAT FRIGATEBIRD	48
LESSER FRIGATEBIRD	49
GREATER CRESTED TERN	50
ROSEATETERN	51
SOOTYTERN	52
BRIDLEDTERN	53
BROWN OR COMMON NODDY	54
LESSERNODDY	55
FAIRY TERN OR WHITE TERN	56
MIGRANT SHORE BIRDS	57
LARGE WADERS	58
SMALLWADERS	60
VAGRANT BIRDS	65
PHOTO CREDITS	67

#### INTRODUCTION

The Republic of Seychelles is made up of around 40 inner, or granitic islands and more than 70 outer islands. The granitic islands (see map overleaf) hold the vast majority of the country's human population and are made up of ancient rocks that formed as part of a continent over 600 million years ago, separating from other land masses about the time of the final extinction of the dinosaurs 65 million years ago. Because they are ancient and remote from other land, the inner islands support a range of species found nowhere else on earth (endemic species). The archipelago has been recognised as one of 218 'Endemic Bird Areas' on earth, by the conservation and research body BirdLife International. In addition to their importance for land birds, the islands support populations of breeding seabirds and are the regular winter home of many wading birds that spend the summer months around the Arctic circle.

This book is an introduction to many of the bird species found in the inner Seychelles. It has photographs of 63 bird species, including all the species you are most likely to see when birdwatching here. It can be used to help identify the bird species you see, and gives ecological and conservation information on them in non-technical language. While it does not include every species ever seen in Seychelles (most occasional vagrants have been omitted), it has information on almost all the regularly occurring species. The aim of the book is to give you an insight into the species you see, their importance in ecosystems and their role in the natural heritage of Seychelles.

Although aimed at people in the granitic islands of Seychelles, many of the species shown are shared with the coralline islands of the outer Seychelles. Only the Aldabra group far to the south of Mahé has a range of unique bird species not shared with the islands of the north; it is an endemic bird area in its own right.

The bulk of this book is made up of species accounts (one species per page), in which the birds are divided according to their ecology and status in Seychelles; **land birds** (including marsh birds like herons), **seabirds**, **migrant shorebirds** (waders) and occasional **vagrants**. If you see a bird and have no idea of what type of bird it might be, start with the silhouettes on the inside cover that show the body shapes of different types of bird, which will direct you to the species accounts. For each species described, there is a photo and description which should help you identify it.

#### **Below: Inner Islands of Seychelles**



#### What is a bird?

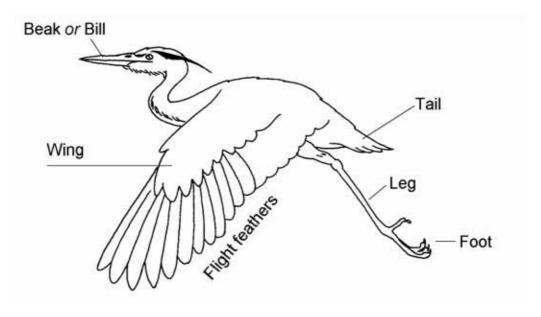
Birds evolved from dinosaurs, the earliest 'bird-like' creatures appearing about 150 million years ago.

All modern birds have some things in common; they have feathers, wings and lay eggs. They don't have teeth but have a horny beak or bill. Many of their special adaptations, like feathers and hollow bones, help to reduce their weight to allow them to fly.

Feathers are amazing structures, made of keratin, the protein from which human hair and nails are also made. They are strong and light, but also flexible, made up of many interlocking barbs. The long feathers on a bird's wings are used in flight; they are called flight feathers. The smaller feathers all over its body make it aerodynamic, keep it warm in cold places and dry in the rain. Feathers are replaced once or twice a year, in the process called *moult*. For example, many shorebirds that winter in Seychelles have dull-looking brown or grey plumage while they occur here.

In the northern summer, they return to their breeding grounds in Siberia and completely change their plumage; males are often brightly-coloured to attract mates and defend territory.

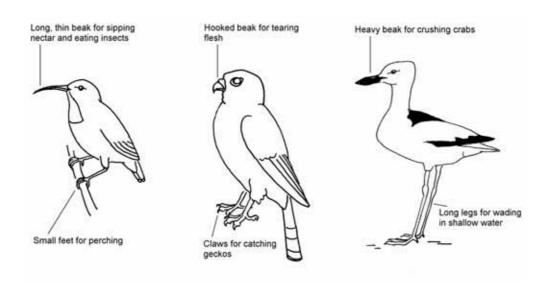
#### **Below: Basic bird features**



Flight allows birds to migrate to escape cold weather, to escape predators and to find food. A few birds like the Aldabra Rail have given up the power of flight; especially on remote islands, birds have not needed to escape predators and evolution has favoured birds with smaller and smaller wings until they can no longer fly.

Within the basic 'bird' pattern different species have a range of adaptations which suit them to different lifestyles and habitats. Most seabirds, for example, have waterproofing oils on their feathers and webbed feet to help them swim underwater when feeding. Wading birds have long, featherless legs so they can wade in shallow water, and bills adapted for probing in sand, mud and among rocks to find their invertebrate food. The Crab Plover has a huge, heavy bill for smashing up crabs. Herons have long featherless legs, and a pointed beak for spearing fish. Moorhens have long toes, to help spread their weight when walking on floating vegetation.

# Below: special bird adaptations to different lifestyles; Sunbird, Kestrel and Crab Plover



#### **Endemic, Native and Introduced**

The Seychelles is a long way from the nearest continent (the African coast is 1600km away). Although the islands are very old, birds that live here today have had to travel a long distance to get here. For oceangoing seabirds, many of which cover long distances at sea outside the breeding season, the remoteness of Seychelles is no obstacle. However, for land birds, which will drown if they land in the sea, finding their way to the islands is a lot more dangerous and difficult. For two birds of the same species to arrive and start breeding here is a rare event.

Bird species that have arrived here, started breeding and established a population with no help from humans, are called NATIVE species.

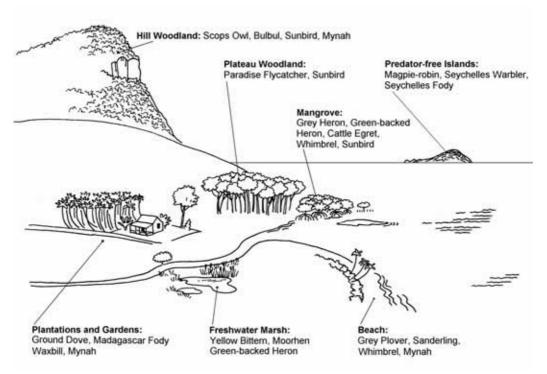
Some native species have been here so long that they have changed through evolution, becoming more suited for local conditions. With time, they become so different from the birds that arrived here that they are considered a different species. Species that have evolved here and are found nowhere else on earth are called ENDEMIC species.

A third group of species could never have reached Seychelles without help from man. These are INTRODUCED species, most of which were brought in as cage birds and released here. Introduced species have not been here long enough to evolve any differences from their original populations. Most of the introduced species thrive in man-made habitats, rather than natural forests.

#### **Bird Habitats**

Most animals are best adapted to survive in a particular environment, which we call their *habitat*. Some of the birds of Seychelles have very specific habitat needs, while others are able to survive in many different habitats. Seychelles Paradise Flycatchers are restricted to tall coastal forest of native trees. Mynah birds, by contrast, can be seen on beaches, in town, gardens, plantations and forest from sea level to the highest hills. The bird's habitat needs are linked to its diet and the way it lives (its *ecology*). Mynah birds have a very broad diet - they will eat almost anything, and can survive where there are dense populations of predators. Several of the endemic land birds have a more restricted diet and cannot survive alongside mammals like rats and cats. They evolved when Seychelles was largely covered in forest made up of native tree species, and this is the kind of habitat they still prefer.

#### Below: Some typical bird habitats



#### Why do birds matter?

Birds are important to man in many different ways. Today, seabirds do not form a major part of people's diet in Seychelles as they once did, but we still eat the eggs of a seabird (Sooty Tern) every year. The colonies of seabirds on islands including Aride, Bird and Cousin attract many visitors from around the world, who all contribute to Seychelles' tourist economy. Air Seychelles even uses a bird, the Fairy Tern, as its symbol. Without the birds that we see every day, the world would be a quieter and less interesting place. Some of the birds found in Seychelles are to be found nowhere else on earth, so we have a special duty to protect, or conserve, them.

#### **Bird Conservation**

Since people first settled in the Seychelles over 200 years ago, they have changed natural habitats drastically and have affected bird populations. Some birds were directly hunted as food, or their eggs collected examples include the shearwaters (fouke) and Sooty Terns. Others were regarded as pests by people - for example, the endemic parrots which ate fruit crops. At the same time, man began to remove the natural habitats of the Seychelles and replace them with much simpler, 'man-made' habitats. Most of the tall forests on coastal land were lost and replaced by field crops and later, coconut plantations. Marshes were drained or filled in. Either accidentally or on purpose, people introduced a range of species of plant and animal, some of which began to displace the endemic and native species. Rats and cats, which eat birds and their eggs, were introduced to many islands.

All these changes happening at the same time were bad news for the native birds. Many populations of birds were lost, including seabirds such as the boobies (fou) which no longer breed anywhere in the central islands of Seychelles. For three land bird species, these pressures caused the death of every last bird, and the species became extinct. The extinct species in the inner islands of Seychelles are: the Seychelles Green Parakeet or Kato Ver, the Chestnut-flanked White-eye (a type of Zwazo Linet) and the Poul Ble. The Poul Ble was made extinct so quickly that we have no evidence like bones to say what the species actually was, only some written records dating from the earliest years after settlement.

Some of the land birds that did not become extinct survived in very small numbers, on islands without introduced predators: for example, the Seychelles Magpie Robin on Frégate, the Seychelles Warbler on Cousin and the Seychelles Fody on Cousin, Cousine and Frégate. These species are unique to Seychelles, but similar problems have happened to birds all over the world, especially on islands. Island birds are particularly vulnerable because they have often evolved in places free of predators and cannot cope when species like rats are introduced.

Two organisations devoted to international conservation, the World Conservation Union (IUCN) and BirdLife International have listed all the species of birds that are thought to be in danger of extinction in the next 100 years. All together, 1,186 species (12% of the world's birds) are on this list. Of the Seychelles endemic birds, eight are on this list. Four of these are in the highest-risk category (CRITICAL, or critically endangered) which means that they are thought to have a 50% risk of extinction in the next 10 years, because they have shown a rapid population decline or have a very small population or range. Four more species are regarded as being threatened, but being at a lower level of risk - they are VULNERABLE. The Seychelles Black Parrot, although it has a very small population, is not listed because it is thought to be a subspecies of a more common species found in Madagascar and Comores.

#### **Seychelles Birds at risk of extinction:**

	Species		Number of birds in
			the world
			(approximate)
CRITICAL	Seychelles Magpie Robin	Pi Santez	125
	Seychelles Paradise-flycatcher	Vev	230
	Seychelles Scops-owl	Syer	360
	Seychelles White-eye	Zwazo Linet	400
VULNERABLE	Seychelles Kestrel	Katiti	At least 860
	Seychelles Warbler	Timerl Dezil	2,100
	Seychelles Swiftlet	Zirondel	Up to 3,000
	Seychelles Fody	Toktok	3,500

#### What to do with baby birds

Sometimes you might find a baby bird on the ground, in bushes or somewhere that is not its nest. Often these 'lost' baby birds are fledglings (with their first adult feathers) that have left the nest but are still being cared for by the adults. Although they may look fluffy and helpless, they are old enough to escape predators. If you try to pick it up, it will probably run or fly away quickly to shelter. If it does, leave it alone and the parents will come back to feed it.

If you find a very small chick that does not have proper feathers and is helpless, the best thing to do is to find its nest and put it back, as quickly as possible. Baby birds need feeding the correct foods as often as every 20 minutes, something the adult birds are a lot better at doing than people are. If a nest has blown down from a tree, put the nest back in the tree and put the baby birds into it. Put Fairy Tern chicks on a high branch. If the chicks are still alive when you find them, the chances are that they have only recently fallen from the nest and that the parents are still nearby waiting to feed them. The most important thing is to get the chicks into a secure place out of the way of rats and cats.

This applies to seabird chicks as well as land bird chicks. Young seabirds of some species are still fed by their parents even after they leave the nest and fly out to sea, so even if you succeed in raising a bird until it can fly, there is no guarantee that it will be able to feed itself.

If the bird is injured, the veterinary service at Union Vale (Mahé) or Cote d'Or (Praslin) may be able to help.

#### **Watching Birds**

Watching birds as they go about their everyday business of feeding, preening and nest-building can be fascinating, and thousands of people around the world are bird-watchers in their spare time. By noting the colour and behaviour of birds, we can identify the species and age, and learn about their biology. Even the commonest introduced birds show a range of interesting behaviours, and you do not have to go far to see some of the endangered endemic birds like kestrel and swiftlet.

The best time to watch birds is in the early morning and late afternoon when they are most active. By keeping behind cover and not making sudden movements, you may be able to approach quite close. If you sit or stand quietly in the shade, birds will ignore your presence after a few minutes.

Making notes when birdwatching will help you identify your bird and remember how it behaves. Record the date, time, colour and other features, behaviour and call. If possible, make a quick sketch.

#### Things to look for are:

- The size and shape of the body is it larger or smaller than a mynah? Does it have a long neck or tail? What colour is it?
- The wings especially if you see the bird in flight. Are they narrow or broad, long and pointed like a swiftlet's or short and rounded like a sunbird's? What colour are they?
- The beak is it long or short, narrow or thick? Is it straight, or does it curve up or down? What colour is it?
- The legs are they long or short? What colour are they?
- *Behaviour* does the bird fly, walk or hop in a distinctive way? Does it occur in a group (flock) or alone?
- Its *call*, or *song* many species have a song, used especially by males in the defence of territory or to communicate to other birds. Also, often have a range of other calls for example, to warn of predators.

Males, females and young birds of the same species may look very different - watch their behaviour to help identify pairs and family groups.

The best places for bird watching include:

Coastal mudflats, where you can see waders especially in the Northwest Monsoon (for example: Promenade, Victoria; SeyBrew, Le Rocher);

Freshwater wetlands, where you may see small herons and egrets (e.g. North-East Point and Plantation Club, Mahé; Vev Reserve and L'Union Estate, La Digue);

Native forests at any altitude, where you can see many of the endemic landbirds;

Small, predator-free islands, where you can see some of the rarer endemic landbirds (e.g. Aride, Cousin and Cousine).

#### How this book is laid out

With the exception of waders and vagrants, each species in this book has a whole page devoted to it. Each pages has the common names and scientific name of the species, a photograph and a table of key facts, for example:



Scientists refer to each bird species with an individual name, usually in Latin or another classical language, which has two parts. Scientific names are usually written in *italics* with a capital letter for the first part of the name and a lower case letter for the second part of the name.

Of course, people do not use the scientific name in ordinary speech, they use common names, given here in English and Kreol. Common names are not as precise or accurate as scientific names; some names are used for more than one type of bird, and some birds have more than one common name. This can cause confusion.

#### Status •••

Names

The colour spot shows the bird's global status, or how endangered it is. Those species that are in very real danger of extinction (regarded as critically endangered) have a red spot. 'Vulnerable' species have an orange spot. Species in no danger of extinction in the near future have a green spot.



The distance from the tip of one wing to the tip of another, when the wings are outstretched, is the wingspan. It is included here as a measure of relative size. But remember that birds have different shaped wings. Some very small birds like swiftlets have very long wings, but a small body.

### Population in Seychelles

The number of birds that live or breed on the inner (granitic) islands of Seychelles. For the rarer landbirds, populations can often be measured very accurately. For some commoner landbirds, we can only guess the total population. Seabirds, which can only be counted when they are at their breeding sites, tend to be measured in number of breeding pairs of birds.



#### World Distribution

Most species (except the endemics) are found outside Seychelles as well as here. This summarises where they are found in the world.



#### Distribution in Seychelles

Shows where the bird breeds, and where it is found, in the Seychelles.



#### Habitat

The environment in which the bird may be found.



#### Nests

Describes where and how the bird builds its nest. Most land birds build some kind of nest, using twigs (e.g. mynah, pigeons) or woven grasses (Madagascar Fody, Sunbird). A few species (the owls, Black Parrot) do not build a nest but find suitable holes in trees. Seabirds are more variable, some building nests in trees (e.g. Lesser Noddy), another laying its eggs on bare branches (Fairy Tern) and several nesting on the ground (e.g. Sooty Tern). Some vary their nesting behaviour according to whether there are introduced predators on the island or not (e.g. White-tailed Tropicbird).



#### O Diet

The normal diet of the species is described. Some species are quite specific feeders and will only eat certain types of food; for example, Blue Pigeons only eat fruit. Others are generalists, eating almost anything (e.g. Mynahs). Birds have particular adaptations to their particular diet, for example in beak size and shape (see page 3 and 4).



#### Identification

Points out key features of the species - the best things to look for in order to recognise it.

The photo accompanying each entry usually shows the bird as it typically looks, and the text beneath gives further details on its natural history.

#### Technical terms used in the text

Bird of prey A term used for birds that feed on other animals.

using clawed feet to catch their prey. Includes

eagles, hawks and falcons.

The uppermost, leafy part of a tree. Canopy

Crown The top of a bird's head.

Domesticated Species that have been kept by man for many

years, and are often substantially different from their wild ancestors, are said to be domesticated, e.g., chickens and other poultry.

Finding the way using sound. **Echolocation** 

The study of an animal's home, habitat and **Ecology** 

habits.

Found only in one place, e.g. Seychelles. **Endemic** 

Introduced species are said to be established Established

when they start to reproduce and replace

individuals that die naturally.

A gradual change in species, which can lead to **Evolution** 

new species developing if conditions are right.

Driven by natural selection.

A species is said to be extinct when all Extinct

individuals are dead.

When domesticated animals escape and begin to Feral

become established in the wild they are said to be

feral.

A baby bird that has left its nest. Fledglings have Fledgling

some adult feathers and can usually fly.

The type of environment in which an animal or Habitat

plant lives.

Introduced Species that have been released outside their

natural range by people, and become

established, are said to be introduced.

**Migration** A seasonal movement of animals from one

place to another.

Moult Natural renewal of the plumage; old feathers are

shed and new ones grow. Usually occurs once

or twice a year.

Native Species which are present in an area naturally,

without any help from man, are said to be *native*.

Natural Selection The driving force behind the evolution of new

species. Some individual animals or plants are better able to survive in their environment than others (they are 'fitter'). These individuals are more likely to breed and raise young than other less fit individuals, passing on their

characteristics to the next generation.

**Nectar** A sugary liquid produced by plants, usually at

flowers.

**Nocturnal** Active at night. **Plumage** Abird's feathers.

**Predator** An animal that feeds on other animals.

**Resident** Present in an area all year round; not a migrant. **Species** All plants and animals are divided into species.

Individuals within a species can breed with others of the same species to produce similar,

fertile offspring of the same species. Usually,

individuals of one species cannot breed with those of a different species and, if they do, their

offspring are likely to be infertile.

Subspecies Where individuals in a local population differ

consistently from other those of other populations, that population may be regarded as belonging to a distinct *subspecies* or race. Individuals from different subspecies can still

interbreed if they meet.

**Territory** An animal's home area, which it defends against

others usually to protect a food supply or some

other resource.

Wader A long-legged bird, often with a long bill. Most

waders feed in shallow water.

Wattle A fleshy, featherless fold on a bird's head,

usually above the beak, sometimes brightly

coloured.

#### NATIVE AND ENDEMIC LAND BIRDS

Although over 190 different species of bird have been seen on or around the central islands of Seychelles (and the number is increasing all the time), many of these are occasional visitors or *vagrants* (see page 65), while others, including all of the shore birds (see page 57) are *migrants*; they come here every year but do not breed here. Only 38 bird species breed here, and of these nine were introduced (see page 34). Species that arrived in Seychelles with no help from man, and breed here, are called *native* species.

There are 19 native land bird species; the other natives are seabirds that spend much of their time at sea, returning to breed on the islands. Long distances over sea from mainland Africa and Asia, or from other islands in the Indian Ocean, are easily crossed by ocean-going seabirds, but are a big barrier to land birds that cannot feed as they fly, and will drown if they land in the sea. So it is very rare for new land bird species to reach Seychelles (although two species have reached the islands in recent years), and there are relatively few native land birds in Seychelles.

Birds that arrived here a long time ago are now different from their nearest known relatives on continental Africa or Asia, or other island groups. Change has taken place through the process of *evolution*. Species that are found in Seychelles, and nowhere else in the world, are called *endemic* species. The central Seychelles islands have 11 surviving endemic land birds (at least two more are extinct); the Seychelles endemics all have 'Seychelles' in their English names. Most of the endemic land birds evolved to live in the dense native forest that clothed the islands before humans came, when there were few *predators*. Many (though not all) suffered when people arrived and cleared native vegetation and introduced new predatory species like rats and cats.

Ardea cinerea



175 - 195cm



40 birds in 1995; many more now



Africa (and Madagascar), Europe and Asia



Breeds on Mahé, Houdoul Island, seen throughout Seychelles



Marshes, streams, beaches



A large platform of sticks, in trees. Two to four eggs laid



Fishes, frogs, shellfish from sea and freshwater



A large long- legged and long necked bird with a long, spear-like beak

This is the largest *wading bird* you are likely to see in Seychelles, and it is the only bird to return to the granitic Seychelles after being made *extinct* here. Some time before 1970, all the grey herons in the central Seychelles were killed by people for food, although they survived on some outer islands. Birds returned in the 1980s, and were breeding again on Mahé by 1990.

Grey Herons build their large, untidy nests in trees, usually in small colonies. You can see Grey Herons fishing in streams in central Victoria. Sometimes in built-up places they are injured or killed by cars or when they fly into power lines.



Ixobrychus sinensis



42 - 47cm



Around 200 birds



Asia, some Pacific Islands, Seychelles



Breed on Mahé, Praslin & La Digue, sometimes seen on other islands



Freshwater marshes



In reeds or shrubs 1.5m or less above water. About four eggs laid



Tiny fish, frogs, insects



A small, long-legged, yellowish bird seen around freshwater marshes

A very shy, small heron that hides in vegetation around the edges of ponds and marshes. It can climb stems of bulrushes, sedges and other wetland plants.

It is easiest to see in the early morning or evening, especially on La Digue plateau or certain marshes on Mahé (e.g. Plantation Club), in marginal vegetation or on lily pads or floating sticks. Because freshwater marshes are threatened by development, this bird is probably very rare, although it is difficult to record exact numbers, because it is so shy. It eats small fish and other water creatures.





Butorides striatus



52 - 60cm



Unknown, but very large



Asia, Africa and Central America



Breeds throughout the Seychelles, even on tiny islands



Rocky shores, mangrove, shallow reefs, freshwater marshes



Solitary, in trees and shrubs. Two to four eggs laid

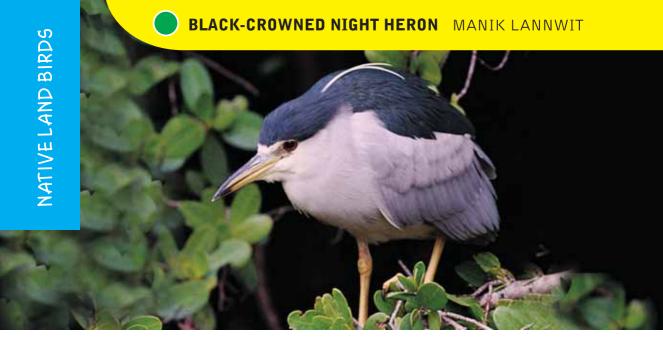


Tiny fishes, frogs, insects, skinks, crabs, eggs of other birds



A small grey-brown heron

A small, common heron found almost anywhere in Seychelles, even the tiniest islands. Despite its English name, its back is dark grey rather than green, and young birds are streaky brown. Green-backed Herons are common on the coast, where you can see them fishing in shallow water. Because they have fairly short legs, they can't wade in deep water but often perch, crouched, on rocks at the edge of the water to hunt fish. Green-backed herons have a loud warning call, a harsh double croak, and this is often the first thing to tell you when one is nearby.



Nycticorax nycticorax



105 - 112cm



Unknown; tens or hundreds of birds



Europe, Africa, North and South America



Breeds Mahé, Praslin, Silhouette, Cousin and perhaps other islands; seen on many islands



Freshwater wetlands, mangroves



Nests communally, in trees. Three to five eggs laid



Small fishes, frogs, insects, skinks, crabs, eggs, chicks and even adults of other birds



Adults have a black crown and back, grey wings and body

Asmall heron new to the Seychelles, first seen here in 1992 when a single wind-blown vagrant bird landed on Mahé. More birds followed and around 1996 they started breeding here. Today, small breeding populations occur on several islands.

Night Herons build nests communally in the tops of trees, sometimes alongside other herons.

In the evening, groups of birds leave to feed, making a quacking call as they fly. They hunt in shallow freshwater streams, marshes and mangrove areas, and in grassy places, mainly by night.



Bubulcus ibis



88 - 96cm



Unknown



Europe, Africa, Asia, Australia, North and South America



Breeds Mahé and probably other islands; seen on many islands throughout the Seychelles



Grassland and around human habitation, also freshwater wetlands and mangroves



Communally, in trees. One to three eggs laid



Feeds on Insects, fish, skinks, crabs, eggs, chicks and even adults of other birds



A small all-white heron, sometimes with buff-orange patches on breast and head. Often seen away from water

Cattle Egrets can be seen all over the world. In the twentieth century, the species expanded its world range greatly and it is now found on every continent except Antarctica. Egrets are a familiar sight round the Victoria fish market, where they feed on flies and scraps of fish. They eat a wide variety of foods and do well in man-made habitats.

At breeding time, the normally pure white *plumage* of egrets becomes yellow-orange on the breast and head, and the bill (normally yellow) turns pink. They nest in large groups, in mangroves and other trees. No-one knows who the original 'Madanm Paton' was.



Gallinula chloropus



50 - 55cm



Unknown



Europe, Africa, Asia, North and South America



Breeds on most large or medium-sized islands, but is most successful on predator-free islands such as Aride, Cousin and Cousine. Also on Denis



Freshwater marshes and dense vegetation.



In dense marginal marsh vegetation. Up to eight eggs



Insects, worms and snails, seeds and leaves



A black bird with red, yellow-tipped bill, yellow-green legs and large feet

A bird of freshwater marshes and plateau woodlands. Its long toes help spread its weight when it walks on mud or floating plants, so it does not sink. It rarely flies or perches in trees, preferring to walk or swim. Moorhen pairs defend a *territory*, keeping others out; sometimes birds fight at the edge of two territories. Older chicks may stay on in the territory to help raise new broods of chicks. The adults have a loud call that you may hear even when they are hidden in dense vegetation. In the past, people ate moorhens and this, along with the loss of their wetland habitat, has made them rarer.

Falco araea



40 - 45cm



420 - 430 PAIRS



Seychelles only (endemic)



Breeds on Mahé and nearby small islands, Praslin (where very rare), Silhouette, North Island and Félicité



Woodland, scrub, cliffs, coconut plantations, urban and cultivated areas from sea level to high altitudes



On cliffs, in buildings and (sometimes) tops of coconut palms or trees. Two to three eggs laid



Geckos and skinks, small birds and insects



The only resident small falcon. Grey head, red-brown back

The Seychelles Kestrel is the only native day-flying *bird of prey* in the central Seychelles and one of only two in Seychelles (the other is the Madagascar Kestrel, found on Aldabra). It eats a variety of small animals, mainly lizards. Pairs of birds defend a territory, keeping other kestrels out. They do not construct a nest but lay their eggs on the ground among rocks, on cliffs or on ledges of buildings such as church towers. Traditionally, people have thought of this bird as unlucky and even killed it. Now it is rare and protected by law. Most of the surviving Seychelles Kestrels live on Mahé.



Streptopelia picturata subspecies



37 - 43cm



Unknown: tens of thousands



Native toMadagascar, Comores, Aldabra, Seychelles. Introduced to Mauritius, Reunion and Chagos



Breeds on most large and medium-sized granite islands, also Bird and Denis



Woodland, scrub, gardens



A stick nest is built in trees and shrubs, two eggs are laid



Feeds mainly on seeds, also fruit and a few insects



A large pink-brown pigeon with a grey or purple head

This pigeon is found naturally on many islands in the Indian Ocean. In Seychelles, different varieties or subspecies have evolved on Aldabra, the Amirantes (now *extinct*) and the granitic islands. Yet another subspecies has been introduced to some of these islands from Madagascar. The Madagascar type is large, with a grey head, and has replaced the native Seychelles type on many islands. The native type is smaller, with a purple head, and some may still survive on Aride, Cousin and Cousine. The Madagascar Turtle Dove spends a lot of time on the ground but is also a strong flier, easily flying between close islands.



Alectroenas pulcherrima



38 - 40cm



Unknown: at least 5,000 birds



Seychelles only (endemic)



Breeds on most large and medium islands, including Aride and Cousin



Woodland, scrub, gardens



A loose stick nest is built in trees and shrubs, One or two eggs laid



Fruit



A large pigeon, usually in trees. May look uniformly dark (like Black Parrot) but in good light, the pale blue neck and red head can be seen

A pigeon with *plumage* in three colours; Dark blue (body, wings), light blue (neck) and red (*crown*, *wattle* around eye) like the red, white and blue flag of Holland after which it is named. Young birds are a muddy green-blue colour. This species spends much of its life in the canopy of trees and eats the fruits of figs, bwa dir, ylang ylang and other trees. In the courtship flight, birds fly steeply upward before gliding down with their wings held stiffly down. Once it was shot for food and became quite rare, but populations have recovered and you can now see the bird on many islands. Recently, it has spread to Cousin and Aride.



Coracopsis nigra barklyi



48 - 54cm



Up to 300 birds



Perhaps endemic, but closely related birds in Madagascar and Comores



Praslin, with a few on Curieuse



Woodland, scrub, gardens



In hollow trees and nest boxes, two to three eggs laid



Fruit, both cultivated (mango etc.) and wild (fruit of native palms)



The only parrot on Praslin. Pale brown-grey all over. Usually occurs in small flocks, can be recognised by its distinctive whistling call

This parrot is brown-grey in colour, not truly black. Many bird experts treat it as a local form of a species found in Madagascar and Comores, but some think it is a separate species found nowhere but Seychelles. Here, it was once more widespread, but was killed by humans because it likes to eat cultivated fruit including mango, bilimbi and papaya. It survived on Praslin and is now protected by law. It nests in old hollow trees, which are rare because humans cut down trees for timber before they reach old age, and old trees may be removed because they are dangerous. Fortunately, the birds also use special deep nest boxes provided for them as a conservation measure.



Otus insularis

4

40cm.



Up to 360 birds.



Seychelles only (endemic).



Mahé



**Upland forests** 



Nests in hollow trees, one white egg laid



Feeds on insects, spiders, possibly frogs and small lizards



A small brown owl with a two-note rasping (frog-like) call

The scops owl is *nocturnal* and mainly found in highland forests of Mahé, so it is rarely seen. It can sometimes be heard calling from tall trees; its usual call sounds like a frog or the rasping noise of a big saw on wood, giving the bird its Kreol name.

The Scops Owl was thought to be extinct for many years and no-one had seen a nest or egg until 1999, when these were discovered by a Nature Seychelles team. Most of its habitat is now within the Morne Seychellois National Park where it should be protected.







Scientific Name

Aerodramus elaphrus



28cm



Between 2,500 and 3,000 birds



Seychelles only (endemic)



Breeds Mahé, Praslin, La Digue, but sometimes seen on other islands



Forests, wetlands, gardens, agricultural and urban areas



Nest communally in caves; small cup-shaped nests are built of plant matter and saliva. One egg laid



Flying insects



A small all-brown bird with long, pointed wings. Usually seen flying

Swiftlets are fast and accurate fliers and spend most of their life in the air. They feed by catching small flying insects in their mouth as they fly. The tiny cup-shaped nests made of plant scraps stuck together with saliva are attached to the walls or ceilings of caves. Inside the caves, swiftlets find their way using *echolocation*. You are most likely to see feeding groups of swiftlets in the morning or late afternoon, or in cloudy weather when they fly closer to the ground. The Seychelles Swiftlet does not seem to be in immediate danger of extinction but we still know little about its habits and where it nests.



Hypsipetes crassirostris



35 - 37cm



At least 20,000 birds



Seychelles only (endemic)



Breeds Mahé, Praslin, Silhouette, La Digue and a few smaller islands



Forests, scrub and gardens



In trees and shrubs; circular, built of grass and twigs. Two eggs laid



Fruit, insects, lizards, birds eggs



A brown bird with a shaggy black crest, orange beak and legs

Unlike many *endemic* birds, Seychelles Bulbuls are not in any immediate danger of becoming *extinct*. You can see them on all the largest islands from sea level to high altitudes in gardens and scrub, although they are particularly common in old woodland. They are noisy and aggressive birds, usually seen in small groups, with a range of chattering or squawking calls. Adults are the only Seychelles land birds with orange beak and legs, but in young birds the beak and legs are dull grey-brown.



Copsychus sechellarum



29cm



About 125 birds



Seychelles only (endemic)



Frégate, Cousin, Cousine and Aride



Forests and gardens



Built from grasses, fribes, usually in nextboxes or natural cavities in trees, sometimes in thetop of coconut palms. A single egg is laid.



Insects and other invertebrates, baby mice, fish dropped by seabirds



A long-tailed, glossy black and white bird with black bill

The most endangered of the *endemic* birds, Seychelles Magpie Robins came close to extinction in the late twentieth century; in 1970 there were only about 25 surviving birds on one island (Frégate Island). Through an active conservation programme, which involved removing predators, improving habitat and providing nestboxes on Frégate and moving birds to other predator-free islands to start new populations, the total number of birds has risen significantly, although it remains one of the rarest birds in the world. Unlike many land birds of the Seychelles, the Magpie Robin spends a lot of time feeding on the ground, so it is especially vulnerable to predators. It has a beautiful song.



Acrocephalus sechellensis



17cm



About 2,100



Seychelles only (endemic)



Cousin, Cousine and Aride



Lowland forest and scrub



A cup-shaped structure, made of grass, coconut fibres, etc. One or two eggs (rarely up to four).



Small insects caught on vegetation



A small, brown bird, about the size of a fody but slimmer, with longer legs and a narrow beak

Like the Seychelles Magpie Robin, the Seychelles Warbler came very close to extinction in the twentieth century. In 1968 there were about 26 birds left in a small patch of mangrove trees on Cousin Island. Cousin Island was declared a nature reserve in 1968; coconut palms were removed and native trees grew up all over the island. The warbler population increased rapidly as warblers moved into the new habitat. In 1988 and 1990 birds were moved to the nearby predator-free islands of Aride and Cousine. This is one of the big conservation success stories in Seychelles. Further transfers could allow this species to be removed from the list of threatened birds.





Scientific Name

Terpsiphone corvina



23cm



About 230 birds



Seychelles only (endemic)



La Digue and Marianne



Native forest



Small, cup-shaped, built of fine pieces of casuarina, coconut fibre stuck together with spider webs, at the tips of down-hanging twigs. One egg



Winged insects and spiders, caught in mid-air or picked from leaves



A small bird; males glossy black with long tail feathers, females and young with shorter tail, white belly and red-brown back

Although it was once widespread on Praslin and all its surrounding islands, the Vev is now restricted La Digue, where it is quite common. Birds have been seen on Marianne but it does not seem to breed there. The Vev thrives in tall forest of native trees (takamaka and bodanmyen), especially on the plateau of La Digue. It feeds on insects, flying to catch them in mid-air or pick them from underneath leaves. La Digue has rats and cats and plenty of human activity but despite this, numbers of this bird have increased in recent years, perhaps because people have stopped killing them.



Nectarinia dussumieri



15 - 16cm



At least 20,000 birds



Seychelles only (endemic)



Almost all the granitic islands



Forest, scrub, gardens, from sea level to mountain peaks



Hanging nests, made of grass and moss bound with spider webs. A single egg is laid



Nectar, insects



A tiny bird with a down-curved thin bill and (in males) an iridescent throat patch

The tiny sunbird is one of the few *endemic* species that has thrived since humans arrived here. It can live alongside introduced predators like rats and cats, perhaps because its beautiful hanging nest, built on the end of twigs, gives the egg and chick protection. Sunbirds feed in gardens as well as native forests, visiting hibiscus (Ibiskis) and other flowers. They use their narrow, curved beaks to reach sugary *nectar* from flowers and also catch small insects. The male has a shiny violet-green bib and yellow tufts (hard to see) under each wing. Sunbirds are active, noisy birds, with a surprisingly loud song.



Zosterops modestus



15cm



Less than 400 birds



Seychelles only (endemic)



Mahé, Conception, Frégate



Forest and scrub, gardens



Cup-shaped, built of grass, moss and spider webs. Two eggs laid



Insects, small fruit



A small grey bird, paler beneath. Each eye has a narrow white eye ring

On Mahé, this *endemic* bird is rare and may sometimes be seen in gardens and forest over 300m at La Misère, Cascade and a few other places. It was regarded as one of the most endangered of the Seychelles endemic birds until in 1997 a thriving population was discovered on Conception Island. Since then, research has been carried out on the species and it has been successfully introduced to Frégate Island. In addition to insects, the white-eye feeds on fruits of native and introduced plants.

Foudia sechellarum



17 - 18cm



About 3,500 birds



Seychelles only (endemic)



Aride, Cousin, Cousine, Frégate (also D'Arros, Amirantes, where introduced)



Forest and scrub



Untidy domed structure built from grasses and other plant material. Two (sometimes one) eggs are laid



Insects, fruit, seeds, birds eggs



A small olive-brown bird. Males in breeding condition have patches of yellow feathers on the crown and chin

The Seychelles Fody is less colourful than its introduced relative the Madagascar Fody, and is a species of forest or scrub habitats. It seems unable to survive alongside black rats and is now restricted to a few islands. It has a strong, broad bill and can tackle all sorts of food. On the small seabird islands where it lives, it can eat the eggs of birds, especially Fairy Terns. When adult terns are disturbed, the fody tips the egg from its branch onto the ground to smash it, and then eats it. In the past, when people harvested seabird eggs on these islands, Seychelles fodies were regarded as a pest. Now, both seabirds and fodies are protected and they survive easily alongside each other.

## INTRODUCED LAND BIRDS

A little over two hundred years ago, there were no humans living permanently in Seychelles. When settlement occurred, people naturally brought with them the animals and plants they needed to survive; livestock like cattle and pigs, crops such as rice, maize and cotton. Ever since, more and more species have been introduced, some to help people survive, others simply for interest or as ornament. Some of these species, when introduced to a new environment in Seychelles, have thrived, while others have died out, and some have done well for a period, becoming quite common before becoming extinct for some reason.

Many of the birds that were introduced in the early years were species that had been brought in as cage birds, such as Barred Ground Dove, Madagascar Fody and Waxbills. Most of these are seed-eating birds, and they would have found it difficult to find enough food in the natural forests of Seychelles. As people cut this forest down and converted it into gardens and fields, conditions were made more suitable for many of the introduced birds. Now, most of the birds you see in and around villages and gardens are introduced species, not native ones.

Now we realise that introducing species can have bad effects on the environment and other species. Many introduced species are predators or competitors of native birds. The Indian Mynah can eat the eggs and chicks of endemic Magpie Robins, and also competes with them for nest places. The Barn Owl was deliberately released here in the 1940s and 50s to control rats but also eats Fairy Terns and other native species, and there is now a reward for killing them. When the Indian House Crow became established in the 1980s, the Ministry of Environment killed all the birds so that it would not become a pest as it is in East Africa. Although it seems harsh, it is better to control introduced species before they become a major pest than to wait, and try to control them when they are already well established. It would be difficult, or impossible to eradicate the introduced bird species that have been here for many years already. For this reason, it is illegal to import live birds into the Seychelles without a permit.

One common introduced breeding bird, the domestic chicken, is not included in this book. Domestic chickens are kept almost everywhere people live in Seychelles. They can survive in 'wild' conditions on uninhabited islands. This is not surprising, as they are not very different from the wild Jungle fowl of forests in tropical Asia.



Scientific Name

Psittacula krameri



42 - 48cm



About 50 birds



India & Central Africa (*native*), Europe, the Middle East, USA, China, S. Africa, Mauritius & Seychelles (*introduced*).



Mahé, Cerf, Silhouette



Gardens, woodland, scrub



In holes in trees, and in buildings. Two to six eggs laid



Fruit and seeds



The only long-tailed green bird on Mahé, usually in small flocks

Rose-ringed Parakeets were seen occasionally on Mahé from the 1970s but only in any number since 1997. The first birds were probably pets, released accidentally or even on purpose. Now there could be over 50. They are attractive, lively birds but are very good at establishing themselves where they are introduced, sometimes becoming pests of gardens and orchards. Parrots can also harbour diseases of humans and birds. In Mauritius, where they have been introduced, they compete with an endangered endemic parrot, the Echo Parakeet, for food and nesting sites. Here they could pose a threat to Black Parrots and the Ministry of Environment is undertaking an eradication programme.

Tyto alba



85 - 93cm



Unknown: thousands of birds



Worldwide



All large islands, many medium-sized islands



Gardens, woodland, scrub



Holes in trees and rocks. No nest material. Four to eight eggs laid in a shallow depression



Rats and mice, birds, insects



A large pale owl. The only owl in coastal areas and off Mahé

The Barn Owl is one of the most widespread birds in the world; its natural distribution includes all continents except Antarctica. It is only absent from deserts, Arctic regions and some remote islands. It was not present in Seychelles when people arrived here but was deliberately introduced in the 1950s to control rats. On the larger islands, owls do eat mainly rats, although perhaps not enough to make a big difference in the rat population. They have reached the small islands where seabirds nest, where there are no rats. Here they eat birds, especially Fairy Terns and some endangered species. The Ministry of Environment gives a reward for Barn Owls that are caught and killed.



Geopelia striata



24 - 26cm



Unknown: Tens of thousands of birds



SE Asia to Australia; introduced widely on Indian Ocean islands



All large or medium-sized islands



Open habitats: Gardens, plantations, scrub



Small, built of twigs in shrubs, trees and palms. Two eggs laid



Mainly seeds, also small insects



A tiny long-tailed dove. Grey with narrow darker bars, pink breast and blue bill

The Barred Ground Dove or Zebra Dove is a pretty, small pigeon seen almost everywhere in Seychelles. It prefers very open, grassy places around human settlement and is less common in forest. Its cooing call can be heard throughout built-up places. Wherever there are seeds, or crumbs or rice are dropped, pairs or small groups of ground doves can be seen picking at tiny morsels of food. Male ground doves court females by following them and bowing down, raising their long tails to the vertical and fanning them slightly, showing the white tips of the black tail feathers.

Columba livia



63 - 70cm



Unknown: Hundreds of birds



Found all over the world, especially in urban areas



Mahé, Praslin



Towns



Untidy, twiggy nest built on ledges on buildings. Two eggs laid



Mainly seeds and discarded food



A large, stocky pigeon with plumage in a variety of colours, either grey or white or brown

The Feral Pigeon is derived from a wild bird, the Rock Dove, which lives on rocky cliffs in Europe, Asia and North Africa. Humans have domesticated this bird, developing many different varieties for food, as homing pigeons or for their decorative value. But domestic birds have returned to the wild, or at least semi-wild, living in cities and nesting on buildings like their original homes on rocky cliffs. Because they are successful at living alongside people in cities, they have become very common and widespread. Although in Seychelles they are not kept for food as much as they once were, there are many feral birds on Mahé - for example, around the National Library.



Estrilda astrild



12 - 14cm



Unknown: Hundreds of birds



Much of Africa (native). Spain, Portugal, Mauritius and Seychelles (introduced)



Mahé, La Digue (also Alphonse in the outer islands)



Gardens, plantations, scrub



Large, domed nest, in shrubs or low trees. Four or five eggs laid

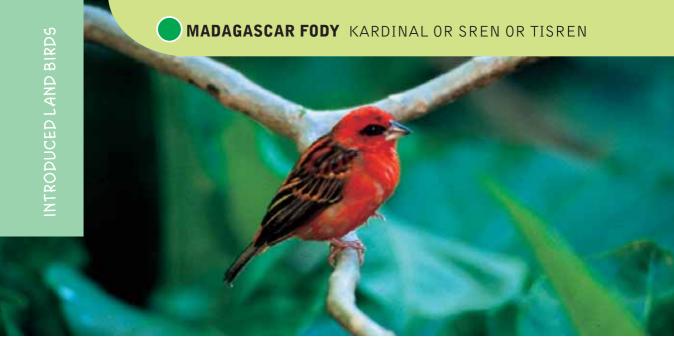


Mainly seeds, for example from fatak grass



A very small bird with a bright red eye stripe and beak. Beak black in juveniles (as illustrated). Usually in a flock

Waxbills were brought here as cage birds and either escaped, or were deliberately released. In the nineteenth century they were important agricultural pests as they fed on the seeds of grasses including rice. Now they are less common and you are only likely to see them on parts of Mahé and the plateau of La Digue. Rice is no longer grown here and they eat seeds of other grasses, particularly fatak. Waxbills form flocks that fly around grassy places such as roadsides, making high-pitched twittering calls as they fly.



Foudia madagascariensis



17 - 19cm



Unknown: Hundreds of thousands of birds



Madagascar (endemic), Mauritius, Rodrigues, Seychelles (introduced)



Throughout. This is the most widespread land bird in Seychelles, breeding even on tiny, remote islands



Gardens, plantations, scrub, grassland



Domed, woven nest in palms, trees or shrubs. Two to five eggs laid



Mainly seeds, also insects (especially in breeding season)



In breeding season, male is scarlet all over (a few are bright yellow). Out of breeding season, grey-brown with red patches. Females always grey-brown

Fody species are found on many islands in the Indian Ocean, with species endemic to Madagascar, Comores, Mauritius, Rodrigues, Aldabra and the granitic Seychelles. This is probably the most colourful, which is why it has been introduced to many places. In the breeding season, male birds are bright red with dark wings and black face mask. Outside the breeding season, males lose much of their red colouring. Females are grey-brown all year round. May occur alongside the endemic Seychelles Fody, but the two species do not seem to compete. This bird prefers open places where it feeds mainly on seeds, while the toktok likes forest, feeding mainly on insects. The woven hanging nest is constructed using grasses, coconut fibre and other material.



#### Passer domesticus



21 - 26cm



Perhaps only a few birds in the granitic islands (established populations on many of the Amirantes)



Europe, Africa, Asia, Australia, North and South America



Mahé



Built-up areas



In buildings. Three to six eggs laid



Mainly seeds, but also other plant material, insects, snails



Male is red-brown above and has a black bib. Female looks like a female Madagascar Fody but sparrow is larger with a white patch on the wing

The House Sparrow is one of the most widespread birds in the world. It is successful because it can live close to humans in towns and cities, nesting in buildings, and has a broad diet. Its natural home seems to be Europe and parts of North Africa and Asia. It was introduced to the coral islands of the Amirantes in the nineteenth century but did not establish a breeding population on the granite islands until about 2002, when a small colony was found in the port area of Mahé. This has been controlled but it is possible that some birds survive. Also, because this bird is found all over the world, individual birds will probably be brought in repeatedly on ships.



#### Acridotheres tristis



33 - 37cm.



Unknown: Tens of thousands of birds



Asia (where *native*), Madagascar, South Africa and Indian Ocean Islands, Australia, warm islands throughout the world (where *introduced*)



All large and medium-sized islands; absent from a few tiny, remote islands



Beaches, urban areas, gardens, plantations, scrub, forest from sea level to mountaintops



Untidy twig nest in coconut tops, hollow trees, roofs, etc. Two to six eggs laid



Fruit, insects, birds eggs, lizards, seeds, household scraps



A medium-sized brown-black bird with white wing patches (obvious in flight) and yellow beak, yellow skin around eye

The mynah is one of the most successful birds in Seychelles. It is found on almost all the islands and in all habitats, and eats all kinds of food. It can make its nest in the top of a coconut palm, in hollow trees or in houses. It is a popular cage bird in many parts of the world because it can mimic sounds and speech. Wild birds can mimic the calls of other birds. Mynahs are aggressive and compete with other birds for nest spaces. They may also eat the eggs or young chicks of other birds. The endemic birds of Seychelles are particularly vulnerable to this kind of competition and for this reason mynahs are controlled on some islands.

## **SEABIRDS**

Seabirds are adapted to life at sea, catching fish and squid. Many have waterproof feathers and webbed feet and feed by diving for their prey; others pick their prey from the surface of the water. Some seabirds (like Sooty Terns and Frigatebirds) are long-distance fliers, spending most of their life out at sea many miles from land, while others (like Fairy Terns) feed closer to shore. However, all seabirds have to return to land to nest and raise their young. The best places for them to breed are small islands with no introduced predators like rats or cats, like the reserve islands of Aride and Cousin. Some seabirds nest in trees, either building a simple nest (like Lesser Noddy) or laying an egg on a bare branch (Fairy Tern). Others nest on the ground or on rocks. Some vary their behaviour according to whether there are predators present or not.

Many seabirds breed during the southeast season, from April or May onwards. Species like the Lesser Noddy and Sooty Tern form large breeding colonies, with many thousands of birds all breeding at the same time in the same location. Others, like the Fairy Tern and the White-tailed Tropicbird, breed alone with pairs at different stages of nesting and chick-rearing all year round.

Seabirds are usually long-lived creatures, living for 20 years or more (quite old for a bird). They usually only raise one chick each time they breed, but species can survive occasional bad years when there is little food and most chicks die. However, long-term or repeated stress like predation by introduced animals can cause populations to die out.

Before people settled on the granite islands, nesting seabirds were found on all islands. Killing by humans, disturbance of nests and the introduction of predators like rats and cats have caused the loss of several species that used to breed here. Some of these, like the boobies (Fou) still breed on the southern coral islands.

It is important that we conserve our surviving seabird colonies for several reasons. They are still an economic resource, with eggs collected from the Sooty Terns on Desnoeufs every year for sale on Mahé. Tuna boats use feeding seabirds at sea as indicators that tuna may occur in the area, as the fish and birds feed on similar species of small fish and invertebrates. People come from all over the world to see Sooty Terns nesting on Bird Island, adding to the tourist economy of the Seychelles. Because so many islands in the Indian Ocean have introduced predators, the predator-free islands of Seychelles are especially important breeding places for these birds.



## Puffinus pacificus



97 - 104cm



Around 60,000 PAIRS in the granitic islands, at least 25,000 birds more on outer islands



Throughout the Indian Ocean and Pacific



Breeds on predator-free islands, including Aride, Bird, Cousin, Cousine, Récif, Mamelles. Also in the Amirantes to the South



In burrows in earth, under rocks. One egg laid



Dives to catch small fish and squid



An all-dark seabird, skims over the waves in flight

Shearwaters are fast-flying seabirds that fly close above the water surface far out at sea, feeding on small fish and invertebrates. They pick their prey from the water surface or dive to catch it, using their wings and feet to propel themselves underwater. At night, they return to nesting colonies on land, making weird wailing noises as they fly in to land and throughout the night. They nest underground, in burrows and under rocks, and suitable predator-free islands are densely covered in shearwater burrows. Their young, fat chicks, were traditionally collected as food. Now, most breeding colonies are protected by law.





#### Puffinus Iherminieri



64 - 74cm



About 60,000 PAIRS in the granitic islands, and less than 100 PAIRS on Aldabra



Throughout the tropics



Breeds on predator-free islands, including Aride, Bird, Cousin, Cousine, Récif, Mamelles. Also in the Amirantes and Aldabra to the South



In burrows in earth, under rocks. One egg laid



Dives to catch small fish and squid



A small seabird, dark above and white below, with short rounded wings

This is a much smaller shearwater than the Wedge-tailed, and has a white throat and belly. The two species often nest on the same islands; like the Wedge-tailed Shearwater, Audubon's Shearwaters nest in burrows and are vulnerable to predation by introduced mammals and humans. Around dusk, birds wait offshore for darkness to fall, before flying to their nesting burrows. At night the breeding colonies are noisy with their loud calls.



## Phaethon lepturus



90 - 95cm



At least 5,000 PAIRS (granitics) with 2,500 PAIRS on Aldabra



Caribbean and Atlantic, Pacific and Indian Oceans



Breeds on almost all islands



In holes in trees (on islands with predators) or on the ground (on predator-free islands). One egg laid



Dives from the air to catch small fish and squid



A white seabird with long white tail, black patches in wings and black eye stripe, and large yellow beak

A beautiful, long-tailed white seabird. The White-tailed Tropicbird breeds on almost every island, including the large islands like Mahé and Silhouette, where it nests in trees and bird's nest ferns in high-altitude forests. However, birds that breed on predator-free islands are more successful. Here, birds often nest on the ground at the base of trees. There is intense competition for good nest sites, with birds fighting viciously for the best spots. Young birds are grey and fluffy, and do not grow long tail feathers for a year or more. When their chicks are fatter than they are themselves, adult White-tailed Tropicbirds abandon them; the chicks become so hungry that they make their own way to the sea.



#### Phaethon rubricauda



104 - 119cm



Only 3-5 PAIRS in the granitic islands; many more (over 2,000 PAIRS) at Aldabra



Throughout Indian Ocean and Pacific



Breeds on Aride only



On cliffs, under a granite overhang. One egg laid



Flying fish



A white seabird with thin red tail, and an obvious red beak

The Red-tailed Tropicbird is similar to the more common White-tailed Tropicbird but is bigger, with a pure white body, red bill and a very thin red tail, which is not always visible in flight. During the breeding season, the feathers of some birds take on a pinkish flush. The Red-tailed Tropicbird is very rare as a breeding species on the granitic islands, perhaps because it is unable to coexist with rats and cats, or because of human persecution in the past.



Fregata minor



205 - 230cm



At least 4,000 breeding PAIRS, many non-breeders



Atlantic, Indian and Pacific Ocean



Abundant throughout Seychelles, but only breeds at Aldabra and nearby islands



In mangroves. One egg laid



Flying fish, fish stolen from other seabirds, baby turtles



A huge black seabird with long wings. Male is all-black, female has white chest patch and juvenile white chest patch and head

Frigatebirds are long-distance fliers and spend most of their life flying over the ocean with a gliding, rarely flapping flight. Unlike other seabirds, the feathers have poor waterproofing and the feet are not webbed. They cannot land on the sea or dive for food, but must pick prey from the water surface or attack other birds to make them give up their own prey. They build twiggy nests in the tops of mangroves on Aldabra. The males use an inflated bright red throat pouch to display to females; outside the breeding season the pouch is usually invisible. Young birds are dependent on the parents for over a year, so the birds can only breed every couple of years.



Fregata ariel



175 - 195cm



In Seychelles, only breeds on Aldabra, where at least 6,000 breeding PAIRS occur



Atlantic, Indian and Pacific Oceans



Occurs throughout Seychelles



In shrubs and trees. One egg laid



Squid, flying fish, fish stolen from other seabirds, baby turtles



A large seabird with narrow white markings on the underwing

The Lesser Frigate is like a smaller version of the Great Frigate, but both males and females have white markings extending onto the undersides of each wing. Like Great Frigates, juveniles have a white or pale buff head. They are often seen alongside the larger species, although many more Great than Lesser Frigates occur around the granite islands of Seychelles. In Seychelles, Lesser Frigates only nest around Aldabra Atoll, where they may build their nests alongside Great Frigates. However, Lesser Frigates use a wider range of trees and shrubs for nesting than do Great Frigates, and choose slightly different nest locations within each tree.



## Thalasseus bergii



125 - 130cm



300-700 breeding PAIRS in the Seychelles, all on the southern coral islands



Indian Ocean, Pacific, Red Sea and Persian Gulf



Breeds on Aldabra and Amirantes; outside breeding season, occurs throughout the Seychelles



On the ground, on bare earth on small islets. One or two eggs laid



Fish, squid, turtle hatchlings



A large tern, grey above and white below with a forked white tail, heavy greenish-yellow beak and shaggy black crest

This large tern does not breed around the granitic islands but can be seen here at all times of year, flying along beaches alone or roosting on sandbanks in small groups. Greater Crested Terns breed on Aldabra, Cosmoledo and a few other outer islands, and some birds can be seen around these breeding sites all year round. When feeding, birds dive from the air into water to catch fish, squid and other prey. They also pick turtle hatchlings from the surface of the water.



## Sterna dougallii



72 - 80cm



Breeding population of about 1,600 PAIRS in Seychelles; 1,200 of these on the granitic islands (Aride)



Worldwide in warmer oceans, also western Europe and North America



Breeds on Aride, with small populations on two of the Amirante Islands



Nests on the ground in big colonies. One or two eggs laid



Fish



In breeding season, underside white or pink, beak red, cap black. When not breeding, bill black and cap black only behind the eyes

The Roseate Tern has a very wide distribution around the world but almost everywhere it occurs, populations are declining. Many breeding colonies in Seychelles have been lost through the introduction of predators (rats and cats), collection of eggs by humans or habitat change. Now only one large colony remains, on Aride Island. Here, they have been threatened by introduced Barn Owls killing the adults. Breeding success is very variable, depending on the food supply (small fish) available during the breeding season (May-August). Climate change could affect the numbers of fish available while the birds are rearing their young.



#### Sterna fuscata



82 - 94cm



At least 3 million PAIRS; 1 million PAIRS in the granitics, 2 million on outer islands



Worldwide in warmer oceans



Breeds on Aride, Bird Island, Cousine, Récif, and other small islands. Also several coral islands to the South (African Banks, Cosmoledo, Desnoeufs)



Nests on the ground in large colonies. One egg laid



Small fish, squid



A large tern, black above and pure white below

This large, black-backed tern is found throughout the world's tropical seas and is the most abundant seabird in Seychelles. However, because it nests on the ground in dense colonies, it is vulnerable to disturbance and predation during the breeding season. Several former colonies in Seychelles have been lost. For many years, the eggs have been collected for food locally and for export. Today, egg-collecting is controlled by the Ministry of Environment and populations are monitored by scientists. If eggs are collected early in the breeding season, females can lay a second. New research indicates that birds may move between colonies in Seychelles.



Sterna anaethetus



77 - 81cm



4,000 PAIRS



Worldwide in warmer oceans



Breeds on predator-free islands including Aride, Cousin, Cousine, Récif, and other small islands



On the ground, shaded by rocks or vegetation. Does not build a nest. One egg laid

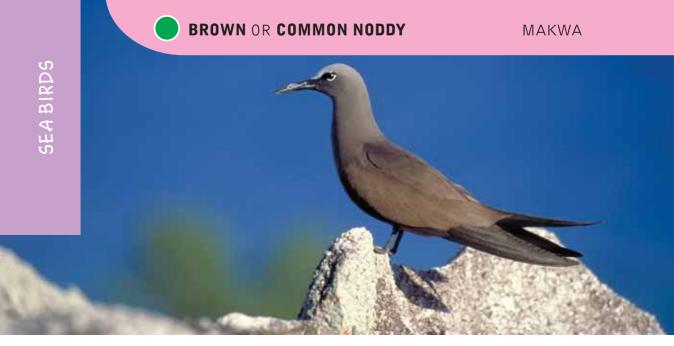


Small fish



A medium-sized tern, grey-brown above with black flight feathers, black cap and eye stripe. Underside white

The Bridled Tern looks similar to the Sooty Tern but is smaller and grey above, rather than pure black. Colonies are smaller, and less densely packed with birds, than those of the Sooty Tern. In Seychelles, breeding does not take place annually as for most seabirds, but every eight months. All the birds in a colony nest at the same time although birds in different colonies do not necessarily nest at the same time. The Bridled Tern is not such a long-distance traveller as the Sooty Tern. Mostly it stays around the breeding islands.





#### Anous stolidus



75 - 86cm



At least 15,000 PAIRS in the granitic islands; another 7-15,000 PAIRS on outer islands



Tropical Atlantic and Indian Ocean



Breeds on predator-free granite islands and all coral islands; seen throughout Seychelles



In coconut palms (where it builds a nest) or on the ground (no nest). One egg laid



Small fish, squid



A brown tern, larger than Lesser Noddy and with less white on head

The Brown (or Common) Noddy is a medium-sized brown seabird with a pale white-grey forehead. It is larger than the Lesser Noddy and has a relatively short, stout beak. Brown Noddies breed from April to September, often building nests from sticks or seaweed in the tops of coconut palms. On predator-free islands, some birds breed on the ground, laying an egg directly onto rock ledges without building a nest. The adult birds feed in flocks, picking small fish or squid from near the surface of the water.



#### Anous tenuirostris



60 - 70cm



At least 300,000 PAIRS on the granitics; a much smaller number on the coral islands



Western Indian Ocean, Western Australia



Breeds on rat and cat-free islands including Aride, Bird, Cousin, Cousine, Frégate



In trees, especially Mapou (*Pisonia*); a small nest of leaves is built. One egg



Small fish, squid



A smaller noddy, with a long, slender beak

The Lesser Noddy is smaller and slimmer than the Brown Noddy, and has a very long narrow beak. Its head has a larger pale area than in the Brown Noddy, but the demarcation between light and dark areas is less sharp. Lesser Noddies nest in the southeast season (from April to October), always in trees. They build platform nests out of wilted *Pisonia* leaves, on the branches of trees on rat-free islands. Lesser Noddies feed in flocks, flying within a few metres of the water and swooping to pick small fish and squid from just beneath the surface.









70 - 87cm



At least 14,000 PAIRS on the granitics, several thousand more PAIRS on outer islands



Tropical islands all around the world



Breeds on all islands



In trees; no nest is built. One egg laid



Fish, squid and crustaceans



The only all-white tern. In adults, the base of the beak is blue

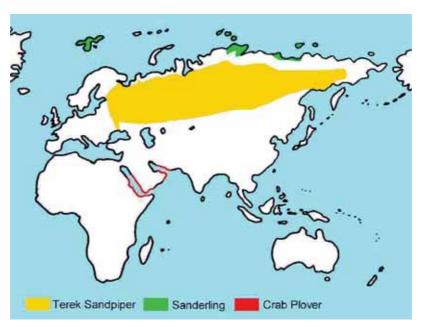
The Fairy Tern is a beautiful bird seen on all islands in Seychelles, even islands like Mahé where they are killed by introduced rats, cats and Barn Owls. They are usually seen flying around trees in pairs. Fairy Terns use trees for breeding, although they do not build a nest. Instead, the female lays a single egg on a bare branch, usually where there is a knot or fork to support the egg. She will sit on the egg to prevent it falling from the branch. As soon as the egg hatches twenty-one days later, the fluffy chick clings on to the branch with its large clawed feet. The adults feed the chicks small fish, which are carried crossways in the parent's beak.

## **MIGRANT WADERS**

Shallow seas and estuaries are very rich in invertebrate life. Many birds feed on the worms, crabs and shellfish in these habitats; often, they have long bills for probing sand and mud where their prey lives, and long, featherless legs to wade through the water. They are called *waders*. At least 17 species of wader are annual visitors to Seychelles, but none of them breed here; they are all regular *migrants*.

Most of the waders breed far to the North, in Siberia or the far north of Europe about 10,000km from Seychelles. There, in the short northern summer the sun hardly sets and huge areas of marshy ground and lakeshores are suddenly rich in insects and other invertebrates. The birds nest on the ground and rear their young, exploiting this explosion of food. However, they cannot survive the harsh winters when the ground is frozen, and migrate South to the Seychelles, East African coasts and other places for the winter. Most arrive in October or November and leave around May. Some birds that are not old enough to breed may not make the long and difficult journey North in the following year but stay year-round in the Seychelles, so there are always a few turnstones, whimbrels and grey plovers present on beaches here.

One species that does not breed in Russia is the Crab Plover or Kavalye. This distinctive black and white bird with a heavy black bill for cracking open crabs and shellfish breeds in the Red Sea and Persian Gulf.



Above: Breeding grounds of three waders that winter in Seychelles

The regular migrant waders you are likely to see in the Seychelles are shown in the photographs in this section and described briefly below, roughly in order of size. Notes on these species are not particularly detailed because none of these birds breed here, and all may be seen in similar habitats (beaches, mudflats, mangroves and freshwater wetlands, and grassy open places on land). For all species the peak season is between October and May.

Curlew - Gran Korbizo - Numenius arquata
 Wingspan: 80-100cm.
 A large bird with a very long, downcurved beak. Usually solitary.

2. Whimbrel - Korbizo - *Numenius phaeopus* Wingspan: 76-90cm.

Like the curlew, but smaller with a shorter, less strongly curved beak and with two dark brown stripes on the top of the head. Sometimes seen in large groups. Much more common than the Curlew in the Seychelles.

3. Crab Plover - Kavalye - *Dromas ardeola* Wingspan: 75-78cm.

An unmistakable black and white bird with a heavy black beak for crushing and eating crabs. Around the southern coral islands of Seychelles, this bird is seen in huge flocks. On the granite islands it occurs in smaller numbers.

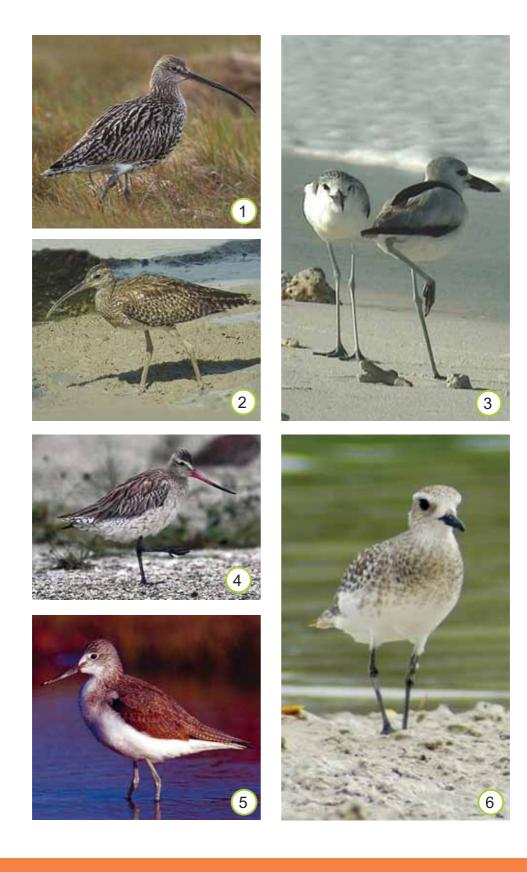
 Bar-tailed Godwit - Limoza Lake Are - Limosa lapponica Wingspan: 62-72cm.
 About the size of a Whimbrel, but with a straight (in fact, slightly

upturned) beak. Uusually seen in pairs or small groups.

Common Greenshank - Lapat Ver - Tringa nebularia
 Wingspan: 68-70cm.
 A tall, slim pale grey bird with greenish legs and a long slightly upturned beak. Wades in shallow water, dashing to chase small fish.

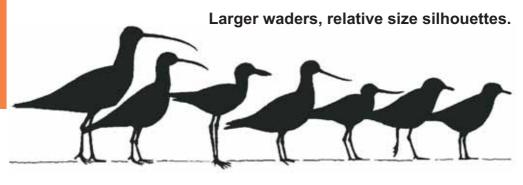
6. Grey Plover - Plovye Sann - *Pluvialis squatarola* Wingspan: 71-83cm.

Alarge, heavily-built plover. This species is more common than the Pacific Golden Plover (see below). The Grey Plover always has black 'armpits' visible when it flies; the Golden Plover does not.



Pacific Golden Plover - Plovye Dore - Pluvialis fulva Wingspan: 60-68cm.

A fairly large plover. Usually browner in colour, smaller and slimmer than the Grey Plover.



Curlew Whimbrel

Crab Plover Bar-tailed Godwit Greenshank Grey Plover

Pacific Golden Plover

Terek Sandpiper - Sifler Trakase - Xenus cinereus 8. Wingspan: 57-59cm.

A medium-sized bird with bright orange-yellow legs and feet, and vellowish upturned beak. Usually seen singly in flocks of other waders.

Wood Sandpiper - Sifler Pye Dibwa - Tringa glareola Wingspan: 56-57cm.

A long-legged sandpiper, larger and taller than the Common Sandpiper. Often at the edge of freshwater pools, usually solitary.

10. Greater Sandplover - Gran Plovye Ordiner - Charadrius leschenaultii Wingspan: 53-60cm.

11. Lesser Sandplover - Pti Plovye Ordiner - Charadrius mongolus

Wingspan: 45-58cm.

Lesser and Greater Sandplover are very similar but differ in size and in leg and bill length, and posture. The Greater has longer legs (usually paler grey than those of the Lesser) and a heavier. longer bill with a long, pointed tip. Its stance is more horizontal, while the Lesser is more upright. In breeding plumage, males of both species are brightly coloured with black mask, white chin and orange breast and forehead. The male Greater Sandplover in breeding plumage has a small white patch just above the beak, an area that is all black in the Lesser.











12. Turnstone - Bezros - *Arenaria interpres* Wingspan: 50-57cm.

The commonest wader in Seychelles, often in flocks of 30 or more. Can be seen on rocky shores and remote islands as well as on mudflats. Has bright orange legs and dark chest collar. Young birds stay in Seychelles all year round.

13. Common Ringed Plover - Plovye Kolye Nwanr - *Charadrius hiaticula* 

Wingspan: 48-57cm.

A small wader with a dark ring round its neck, and orange legs. Normally seen singly, with other small waders. The beak may have an orange base and black tip, or may be all-dark.

14. Curlew Sandpiper - Bekaso Korbizo - *Calidris ferruginea* Wingspan: 42-46cm.

A small wader, usually seen in small flocks. It has a downcurved bill like a miniature curlew. At high tide, flocks feed inland in areas of short grass.

15. Sanderling - Bekaso Blan - *Calidris alba* Wingspan: 40-45cm.

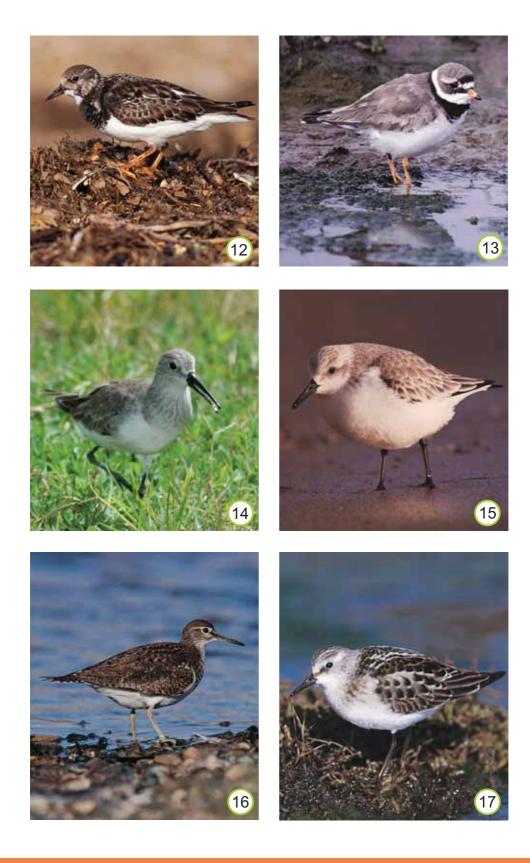
A small, plump, whitish wader normally seen in small numbers on sandy beaches. It runs along the beach feeding on invertebrates in the sand freshly exposed by receding waves, running back up the beach out of the way of incoming waves.

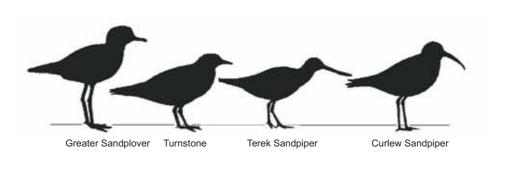
16. Common Sandpiper - Sifler Bat Lake - *Actitis hypoleucas* Wingspan: 38-41cm.

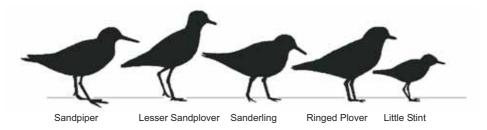
A small brown wader, usually seen by itself around the margins of water (freshwater and the sea). Can be recognised by its colour and the way it bobs its tail.

17. Little Stint - Pti Pti Bekaso - *Calidris minuta* Wingspan: 34-37cm.

A tiny wader, usually seen by itself in groups of other species. The juvenile (photo) has a reddish neck - in overwintering adults, the neck is greyer.







Above: Smaller waders, relative size silhouettes.



**Above: Flock of Crab Plovers** 

### **VAGRANT BIRDS**

Bird migrations do not always go well. Sometimes, flocks of migrants encounter very bad weather and get blown off course. Birds migrating down the African coast can get blown out to sea, where many of them will die. Some of these birds are lucky enough to find islands, like Seychelles, where they can land. These birds we call *vagrants*. Vagrants may stay here for hours, days or months before moving on. Many are so exhausted by their flight that they die here. You are most likely to see vagrant birds at times of year when most birds are migrating, especially October-December. Vagrants may turn up anywhere in the Seychelles, although some islands (including Bird Island) seem to be particularly good for them. By careful birdwatching at the right time of year, you can increase the number of bird species which you see in Seychelles and see some interesting and colourful species.

Some vagrants seen quite regularly are shown below and overleaf. The Barn Swallow and Roller are seen almost every year. The Blue-cheeked Bee-eater is occasionally seen in large numbers. Several species of cuckoo occur, the most frequent being the Common Cuckoo. The species illustrated is the similar, but slightly smaller Asian Lesser Cuckoo. At least eight different species of Falcon (small birds of prey) occur as vagrants, including the Hobby and Amur Falcon.













#### PHOTO CREDITS

Nature Seychelles would like to thank everyone who contributed photographs to this book.

Contributors (listed below) retain copyright on all the images used.

**Unels Bristol** - Seychelles Swiftlet (with nest)

Alan Burger - Audubon's Shearwater, Great Frigatebird

**Gideon Climo** - Green-backed Heron, Moorhen, Seychelles Blue Pigeon, Seychelles Bulbul, Seychelles Magpie-robin, Common Waxbill, Common Mynah, Grey Plover, Curlew Sandpiper

**Dave Currie** - Seychelles Scops Owl, Seychelles White-eye, Barn Owl, Hobby, Blue-cheeked Bee-eater

**Bob Glover** - Sanderling\*

Chris Gomersall - Grey Heron, Yellow Bittern, Cattle Egret, Madagascar Turtle Dove, Black Parrot, Seychelles Swiftlet (in flight), Seychelles Warbler, Seychelles Sunbird, Seychelles Fody, Barred Ground Dove, Madagascar Fody, Wedge-tailed Shearwater, Roseate Tern, Sooty Tern, Bridled Tern, Brown Noddy, Lesser Noddy, Fairy Tern, Common Greenshank\*, Wood Sandpiper\*, Ruddy Turnstone\*, Common Ringed Plover\*, Crab Plover (group), Barn Swallow\*

Steve Knell - Common Sandpiper\*

Mike Lane - Curlew\*

George McCarthy - Black-crowned Night Heron\*

Matthieu LeCorre - Red-tailed Tropicbird

Nature Seychelles - Feral Pigeon, Bar-tailed Godwit

**Asad Rahmani** - Rose-ringed Parakeet

Eva Schumacher - Greater Crested Tern

Roger Tidman - Little Stint\*

**Thor Veen** - Seychelles Kestrel, House Sparrow, White-tailed Tropicbird, Lesser Frigatebird, Lesser Sandplover, Greater Sandplover

**Gary Woodburn** - Whimbrel, Crab Plover, Pacific Golden Plover, Terek Sandpiper, European Roller, Asian Lesser Cuckoo

<sup>\*</sup> Pictures from RSPB Images (rspb-images.com)



## NATURE SEYCHELLES

Nature Seychelles is a local, non-profit NGO that has worked in the field of conservation in Seychelles since 1998. The primary objective of Nature Seychelles is to improve the conservation of biodiversity through science, education, awareness and training programmes.

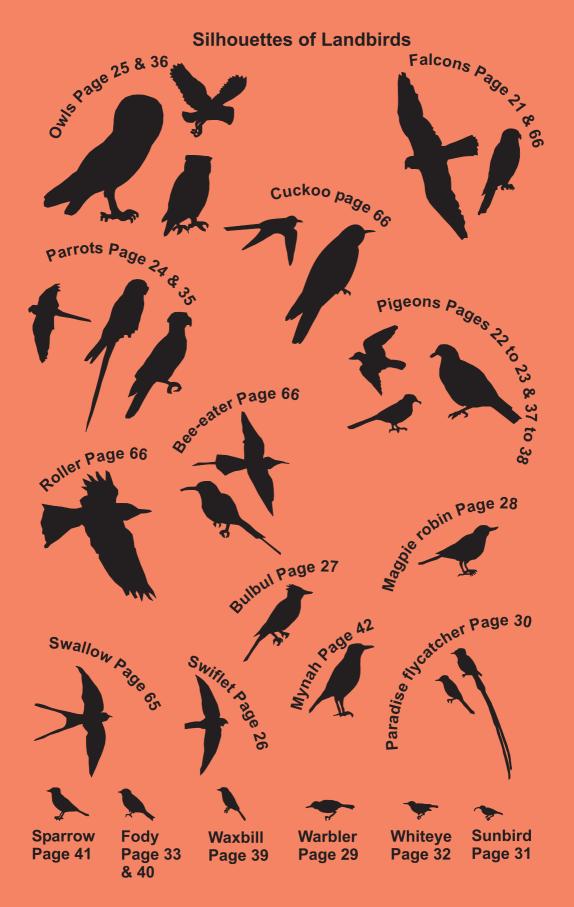
Nature Seychelles coordinates the Seychelles Magpie-robin Recovery Programme and the Seychelles Seabird Project. It carries out research on endangered bird species and manages Cousin Island, an important site for conservation of endemic land birds, seabirds, turtles and other marine life.

It works closely with the Wildlife Clubs of Seychelles in its environmental education programme, and has links with other organisations both within and outside Seychelles.

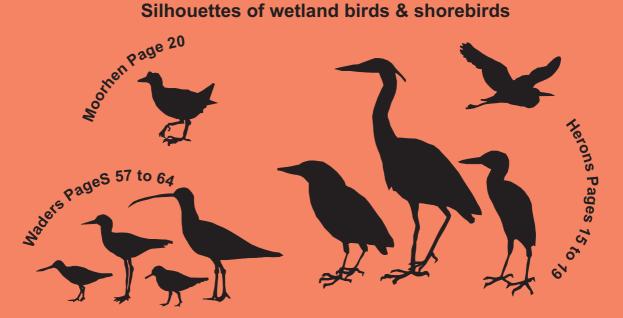
This is one of several publications by Nature Seychelles aimed at encouraging interest in the fauna and conservation of Seychelles.

For a list of Nature Seychelles publications, contact:

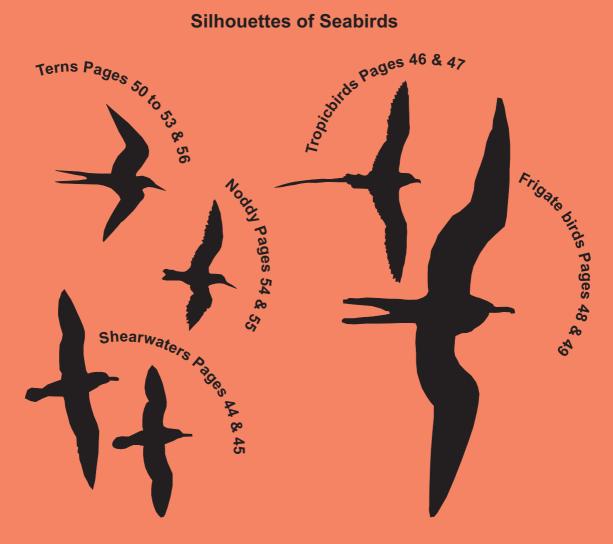
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## Silhouettes of wetland birds & shorebirds



**Silhouettes of Seabirds** 



## Silhouettes of wetland birds & shorebirds



# Silhouettes of Seabirds

