

# Annual Report

for 2011 and 2012



## Mauritian Wildlife Foundation

Saving Endangered Wildlife from Extinction



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**Note:** Key donors given for each project may apply to the year 2011, 2012 or both.

## Message from the President



Two years have passed since I wrote my last President's message. On re-reading it, I see that most of the subjects that I addressed then are still topical today. MWF has continued in its work of ensuring that our endangered endemic flora and fauna are safeguarded. The recovery programmes for endangered species are based on sound science, with the aim of better understanding each species so that we can identify the steps that need to be taken. We then need to take these to achieve clear objectives and secure the populations. I am happy that these programmes have been successful. However, as Prof. Carl Jones, our Scientific Director, states in his message, it will probably always be necessary to have a certain degree of management for our native wildlife.

Restoration of the native forests is key to supporting our biodiversity. In addition to working directly on habitat restoration as part of our conservation work, we also encourage private sector owners of high quality native forest to undertake their own restoration, providing them with the necessary expertise and guidance. We are pleased that the Government of Mauritius has obtained international funding, enabling the National Parks and Conservation Service and the Forestry Service to restore significant areas of forest to the benefit of our endangered wildlife. This is an encouraging initiative, although much still needs to be done.

MWF continues in its work to educate the Mauritian population about the need to protect and conserve the native biodiversity. We participate in public exhibitions, deliver talks, contribute to governmental consultation meetings and our staff are often interviewed by the media.

In Rodrigues, we have an active and vibrant education programme. This reaches all the schools on the island as well as many villages, includes visits to nature reserves and facilitates volunteering opportunities. In Mauritius, the number of visitors to Ile aux Aigrettes is growing, enabling the public to understand and view our conservation work, and we now receive around 14,000 visitors per year. We are constantly looking at ways to develop and improve our education programme for schoolchildren, Learning with Nature, which is supported by expertise from Chester Zoo, and since our last bi-annual report some 7,612 school children have visited this nature reserve.

MWF is increasingly recognized on the international stage for our work, resulting in growing interaction with international counterparts. The Management Committee felt it appropriate to acknowledge this with applications for membership of the International Union for the Conservation of Nature (IUCN) and BirdLife International, both of which have been accepted. This is a great accolade for us, since they only work with the most professional of national organizations, and it opens up access to a wealth of expertise. The Management Team deserves full recognition for this achievement.

I would like to end my message by thanking all the people and organizations that make MWF's work possible. These include the National Parks and Conservation Service and Forestry Service of the Ministry of Agro Industry; the Rodrigues Regional Assembly and Forestry Service; our local and overseas funders; our many partners overseas, including Durrell Wildlife Conservation Trust and the

North of England Zoological Society (Chester Zoo); and our volunteers and staff, ably led by Mrs Debby de Chazal (Executive Director), Dr Vikash Tatayah (Conservation Director), and Prof. Carl Jones (Scientific Director).



**Tim Taylor**  
President,  
Mauritian Wildlife Foundation



## Scientific Director's Report

“

The work that the Mauritian Wildlife Foundation does is long term. There are always going to be major challenges facing our wildlife, brought on by the development of Mauritius but also from global changes, such as increasing travel to and from Mauritius that heightens the risk of alien introductions, and also from more difficult to address problems such as climate change. Our core projects restoring small islands around Mauritius and Rodrigues and the conservation of the endemic wildlife will continue indefinitely. I suspect that a century from now we will still be managing the endemic bird populations and areas of native vegetation. This work has to be scientifically robust and the Mauritian Wildlife Foundation is justly proud of the research that underpins our conservation work.

It is all too easy to embark upon conservation approaches that are inappropriate and we have to be both experience and evidence based. To help answer the most important questions and to evaluate the work we have already done, we are working with a number of researchers at the University of La Réunion, and in Britain at the universities of Bristol, Cardiff, East Anglia, Kent and Reading. There is some very important research being conducted, with recent initiatives looking at the biology of our seabirds and detailed genetic studies on a range of our bird species. We have placed geo-locators on several seabird species, including the Round Island Petrel (*Pterodroma arminjoniana*), and these devices collect invaluable information on the movements of the birds. Genetic studies on the petrel are suggesting that it is actually at least three species and some of these are hybridizing, making this population unique, with the only known three-way hybrid population anywhere. The Pink Pigeon (*Nesoenas mayeri*) population needs long-term nurturing and we are conducting a study to ensure that it does not become too inbred and that we have appropriate genetic management.

Mauritius and Rodrigues have many critically endangered plants and we are working on a Red List to identify the species that need urgent conservation, such as propagation in nurseries and replanting in protected areas. To help us achieve this aim we are hoping to develop a long-term project with botanical gardens.

A recent initiative has been to establish a postgraduate training course with one of our partners, the Durrell Wildlife Conservation Trust, and we hope that it will become an important training school for conservationists in the Indian Ocean.

A major threat to our wildlife is the import of exotic animals for the pet trade, since these often escape or are released. Since the mid-1990s there has been a rise in the number of introduced animals becoming established on both Mauritius and Rodrigues. These impact upon our native species by competing with them for food, carrying

diseases, or predating upon them. A dramatic example is the Madagascar Giant Day Gecko (*Phelsuma grandis*) that is rapidly spreading across the island, wiping out populations of our endemic day geckos. Introduced parrots are a particular threat since many can become invasive and also carry viruses. We have already identified diseases in pet parrots that could be a real problem for our endemic Echo Parakeet (*Psittacula eques*). A great deal has been done to conserve our wildlife but much of this is now being damaged by the liberal introduction of exotic plants and animals for the horticultural and pet trades. The situation is serious and we are urging the Government to ban the importation of exotic reptiles and to severely control the pet trade in birds and mammals.

There are many challenges ahead but I am confident that we will address these creatively to ensure that we can maintain the remarkable species and ecosystems of our islands.

”



**Prof. Carl G. Jones MBE**

International Conservation Fellow, Durrell Wildlife Conservation Trust  
Scientific Director, Mauritian Wildlife Foundation  
Conservation Fellow, North of England Zoological Society



## Who Are We?



An Echo Parakeet nestbox

In the 1970s, several birds, the Rodrigues Fruit Bat (*Pteropus rodricensis*) and a host of plants were on the brink of extinction. A number of key habitats (e.g. Round Island, Ile aux Aigrettes and upland forests) were equally threatened. Against this gloomy background emerged the first significant conservation actions. Following a report written by Sir Peter Scott in 1973, international organizations began to get involved in conservation projects in Mauritius. The first major project was that of the Peregrine Fund, USA, for the conservation of the Mauritius Kestrel (*Falco punctatus*). In 1976, Gerald Durrell, founder of the Jersey Wildlife Preservation Trust (now the Durrell Wildlife Conservation Trust), visited Mauritius for the first time. After several years of taking a leading role in saving the fauna of Mauritius and Rodrigues, Durrell felt that a local organization should be created to manage and conduct the field conservation programmes and help raise funds.

In 1984, the Mauritian Wildlife Appeal Fund was created by a small group of Mauritian businessmen, with the support of the Government of Mauritius, BirdLife International (formerly the International Council for Bird Preservation) and the Peregrine Fund. Over the years, we have maintained a close relationship with the Durrell Wildlife Conservation Trust. In 1995, the Fund was renamed the Mauritian Wildlife Foundation (MWF). It is the only non-governmental organization (NGO) in Mauritius exclusively concerned with the conservation of the native wildlife of Mauritius and Rodrigues. MWF works in close cooperation with the Government of Mauritius, in particular with the National Parks and Conservation Service (NPCS), the Ministry of Environment and the Rodrigues Regional Assembly.

## Our Mission

- To save threatened Mauritian species through the restoration of entire ecosystems.
- To seek new information through field research, data management, captive studies and scientific collaboration for direct application to restoration methods and management.
- To share knowledge gained through restoration programmes with fellow Mauritian and international conservationists.
- To share the joys and benefits of native wilderness and wildlife with the Mauritian people.
- To secure the future of Mauritian species through income generation and sound management of human, fiscal and capital resources.



Hand rearing

## Organizational Structure

MWF is governed by the Management Committee (*see inside back cover*) which consists of 15 members comprising prominent Mauritian businesspersons and professionals, and representatives from major partner organizations.

The Management Team (*see inside back cover*) is composed of Mauritian staff and, in all, MWF employs about 80 Mauritians at all levels of responsibility, and up to 10 expatriate staff. Their work is supported by around 20 Mauritian and expatriate self-funded volunteers at any one time. In addition, up to five international postgraduate students and eight Mauritian undergraduate students annually carry out collaborative research projects focusing on practical conservation management issues (*see pages 41-42 for a list of all staff and volunteers.*)

MWF and the Management Committee are also advised by a number of scientific associates from various organizations (*see Our Partners on page 40*).

## Key Areas of Involvement

Since MWF's formation, we are proud to have been at the leading edge of conservation work in Mauritius and Rodrigues. The passion and dedication of our staff and volunteers have led to some of the world's rarest endemic birds, reptiles and plant species being brought back from the brink of extinction.

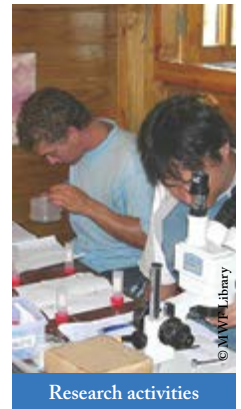
The organization has a history of successful species recovery programmes and those for the Mauritius Kestrel, Pink Pigeon, Echo Parakeet and Rodrigues Fruit Bat have become textbook cases in conservation. To achieve these and other success stories related in this report, we have pushed the frontiers of conservation science and management, exploring innovative methodologies, such as techniques to increase productivity and survival and the genetic management of species restored from limited founders. Mauritius is at an important stage in the recovery of several species, which, although they have undergone significant increases in population size, will require continuous support until large-scale habitat restoration is implemented.

MWF has established habitat restoration projects on several offshore islets, including Round Island and Ile aux Aigrettes, in mainland forest plots known as Conservation Management Areas, in nature reserves including Grande Montagne and Anse Quitor (both in Rodrigues), and on private land. These involve eradicating alien predators and plants, propagating and planting native plant species and reintroducing the native birds, reptiles and seabirds. Ile aux Aigrettes is of particular importance, providing a showcase for our work through education and ecotourism activities.

All of these projects, along with our commitment to awareness-raising, will help to recreate the biodiversity of the unique native forests and contribute to the conservation of the endangered endemic fauna.



MWF head office



Research activities

# The Need for Conservation in Mauritius and Rodrigues



Mauritius, Rodrigues and Reunion form the Mascarene Archipelago, which is located in the western Indian Ocean. These islands were never connected to a continental landmass and this isolation, and the age of the islands (Mauritius > 8.9 million years), allowed some of the richest and most extraordinary terrestrial biodiversity to evolve, giving rise to a high percentage of endemic species. The high endemism and the species diversity have resulted in the islands (along with Madagascar, the Comoros and the Seychelles) being classified by Conservation International as part of an Indian Ocean biodiversity hotspot.

Mauritius has a particularly diverse flora, with around 685 native species of flowering plants, of which 267 species are endemic to Mauritius and 150 to the Mascarenes. Of the Mauritian endemic flora, 89% is threatened, with 89 species known only from fewer than 10 individuals in the wild and 5 species represented by a single known individual. Rodrigues has 133 native species, of which 37 species are endemic, nearly all of which are threatened, with 9 species down to fewer than 10 wild individuals.

When humans first visited the islands they found luxuriant forest teeming with unique plant and animal life. The forest contained trees such as lataniers (*Latania* spp.), bois d'èbène (*Diospyros* spp.), bois de

natte (*Labourdonnaisia* spp.), vacoas (*Pandanus* spp.) and hibiscuses (*Hibiscus* spp.). The forests provided a home for the Dodo (*Raphus cucullatus*) (Mauritius), the Solitaire (*Pesophaps solitaria*) (Rodrigues), as well as parrots, pigeons, giant geckos, giant skinks, giant tortoises, and fruit bats.

Uninhabited until 1598, Mauritius was occupied in turn by the Dutch, the French and finally the British, before gaining independence in 1968. Rodrigues received its first colonists, who stayed for just two years, in 1691, followed by other French settlers and then the British, remaining part of the Republic of Mauritius after independence. Each successive occupying power caused its own damage to the islands and their native fauna and flora. Introduced invasive animals such as rats (*Rattus rattus*, *R. norvegicus*), cats (*Felis catus*), mongooses (*Herpestes javanicus*), pigs (*Sus scrofa*) and monkeys (*Macaca fascicularis*) eat the eggs and young of endemic birds and reptiles. Introduced plants such as Strawberry (Chinese) Guava (*Psidium cattleianum*), Ceylon Privet (*Ligustrum robustum*), vieille fille (*Lantana camara*), Traveller's Palm (*Ravenala madagascariensis*) and acacias grow rapidly, and out-compete the native plants for space, light and soil nutrients. As the older trees die out exotic plants replace them.

Forest clearance for agriculture and construction, and overgrazing by introduced cattle also negatively impacted on the native flora, so that after four centuries of human settlement less than 2% of the native forest of good quality remains on Mauritius. In Rodrigues today no native forest remains, only secondary areas of mostly exotic species.

All the endemic giant tortoise species on the islands were exploited and hunted to extinction and many other animal species, including the Dodo and the Solitaire, were simply unable to adapt to the invaders and to the loss of their habitat, and rapidly became extinct.

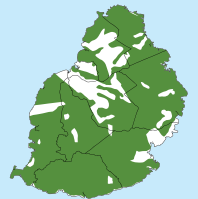
Today many of the remaining fauna and flora species are extremely rare on both islands. They are restricted to remnants of native forest in remote mountainous areas, the Black River Gorges National Park, nature reserves and islets. Conservation interventions are essential to save the last forest fragments and to secure the future of threatened species. Not only are these unique forests part of our natural heritage, but they also play a fundamental role in our environment by conserving natural water resources, maintaining clean air and preventing soil erosion.



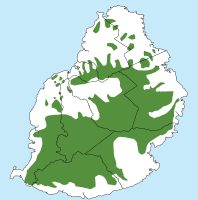
Restored coastal forest on Ile aux Aigrettes

Deforestation of Mauritius since 1773

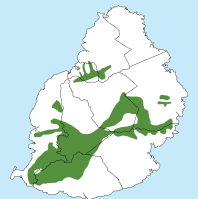
1773



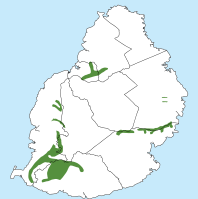
1835



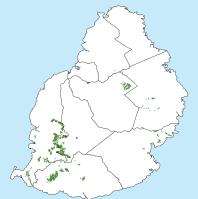
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1997



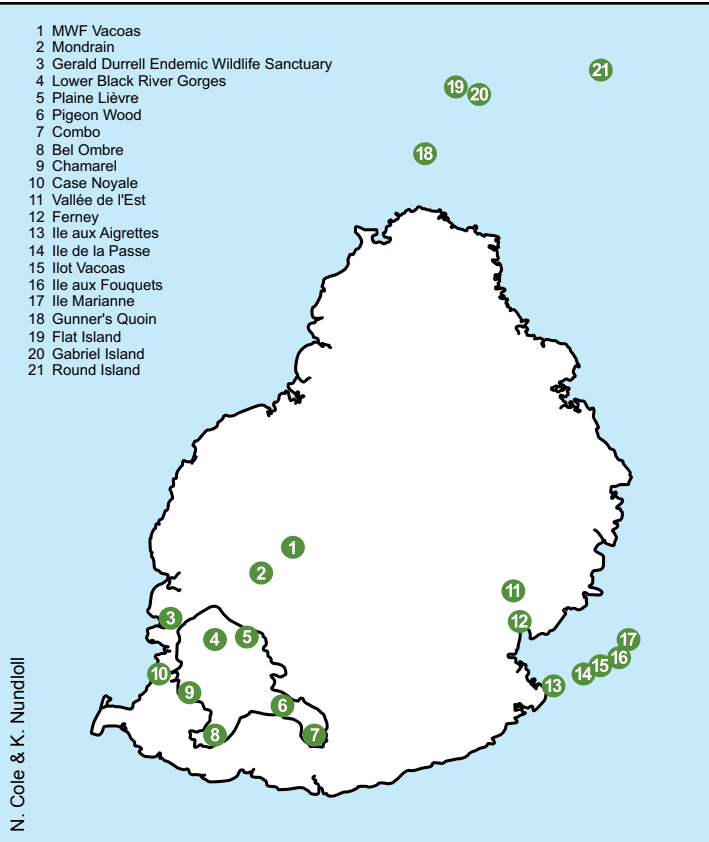




Although some areas have been protected by law, such as the Black River Gorges National Park, Bras d'Eau National Park, nature, mountain and river reserves, and some islets in Mauritius, as well as the nature reserves of Grande Montagne, Anse Quitor, Ile Cocos and Ile aux Sables in Rodrigues, this alone is not sufficient to save the forest and its native biodiversity.

Conservation management is essential if we want to keep our wild-life, and the Mauritian Wildlife Foundation has been at the forefront of this movement for nearly 30 years. Our habitat restoration projects on both main islands and on some of the small islets are long-term projects involving the control and eradication of introduced animal pests such as rats, cats, shrews (*Suncus murinus*) and mongooses, the elimination of invasive alien plant species, and planting endemic plants grown in nurseries. MWF has also taken steps to preserve the most critically endangered plant species, by propagation and by maintaining field gene banks.

### Map of Projects in Mauritius

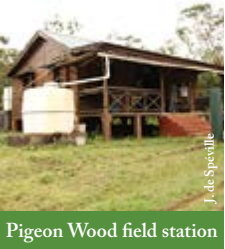
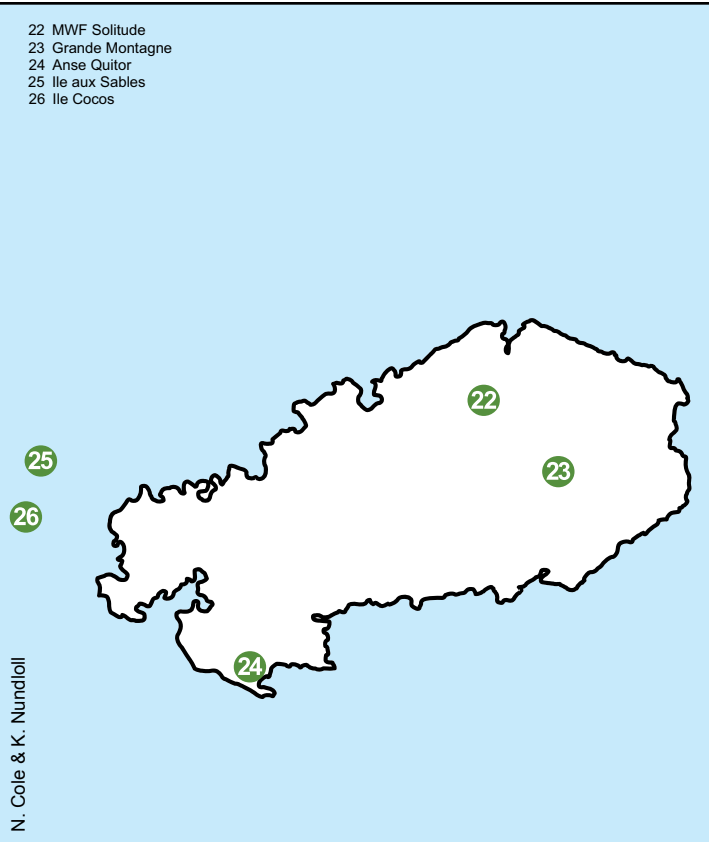


Intensive species recovery programmes have been set up to save endangered endemic birds. These have involved captive breeding and release of individuals to increase wild populations, progressing to monitoring and wild management of the species as it recovers. These programmes have gained worldwide acclaim for the methods used and results achieved.

Although much progress has been made in conservation management on Mauritius and Rodrigues, many of the original threats to plant and animal species still exist today (alien invasive species, loss of habitat, poaching). Efforts will have to be long term to remove these limiting factors and to educate the population about the importance of preserving their native biodiversity.

**Note:** Maps below are not to scale.

### Map of Projects in Rodrigues



# IUCN and Conservation Status

The IUCN (International Union for the Conservation of Nature) was the first global environmental organization aiming to improve and expand conservation work around the world. One component of the IUCN's work, under the Species Survival Commission, is to gather data on the current status of animal and plant species worldwide, using *The IUCN Red List Categories and Criteria* to assess a species risk of global extinction. The result is *The IUCN Red List of Threatened Species*, which gives taxonomic information, conservation status and distribution details on evaluated animal and plant species.

The conservation status categories are given below:

## Extinct (EX)

■ there is no reasonable doubt that the last individual has died.

## Extinct in the Wild (EW)

■ known only to survive in captivity or as a naturalized population well outside the past range.

## Threatened

### Critically Endangered (CR)

■ facing an extremely high risk of extinction in the wild.

### Endangered (EN)

■ facing a very high risk of extinction in the wild.

### Vulnerable (VU)

■ facing a high risk of extinction in the wild.

### Near Threatened (NT)

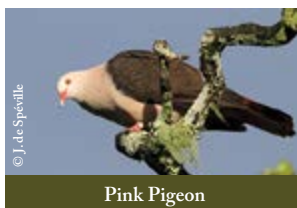
■ does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.

### Least Concern (LC)

■ does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened, and is widespread and abundant.



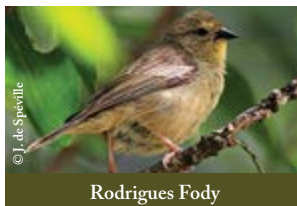
Mauritius Kestrel



Pink Pigeon



Echo Parakeet



Rodrigues Fody



Rodrigues Warbler

## Common and Scientific Names

of Some Native Fauna in Mauritius and Rodrigues

**Abbott's Booby** (bœuf) *Papasula abbotti*

**Bojer's Skink** (scinque de Bojer) *Gongylomorphus bojerii*

**Bouton's Skink** (scinque de Bouton) *Cryptoblepharus boutonii*

**Bulwer's Petrel** (pétrel de Bulwer) *Bulweria bulwerii*

**Common Noddy** (macoua or vacoas) *Anous stolidus*

**Durrell's Night Gecko** (gecko de nuit de l'île Ronde) *Nactus durrelli*

**Echo Parakeet** (grosse câteau verte) *Psittacula eques*

**Fairy Tern** (oiseau-la-vierge) *Gygis alba*

**Guenther's Gecko** (gecko de Guenther) *Phelsuma guentheri*

**Herald Petrel** (pétrel) *Pterodroma heraldica*

**Keel-scaled Boa** (boa de l'île Ronde) *Casarea dussumieri*

**Kermadec Petrel** (pétrel) *P. neglecta*

**Lesser Night Gecko** (gecko de nuit) *Nactus coindemirensis*

**Lesser Noddy** (noddi marianne) *Anous tenuirostris*

**Mauritius Black Bulbul** (merle) *Hypsipetes olivaceus*

**Mauritius Cuckoo-shrike** (merle cuisinier) *Coracina typica*

**Mauritius Fody** (cardinal de Maurice) *Foudia rubra*

**Mauritius Fruit Bat** (chauve-souris de Maurice) *Pteropus niger*

**Mauritius Grey White-eye** (pic-pic) *Zosterops mauritianus*

**Mauritius Kestrel** (crécerelle de Maurice) *Falco punctatus*

**Mauritius Olive White-eye** (oiseau à lunettes) *Zosterops chloronothos*

**Mauritius Paradise Flycatcher** (coq des bois) *Terpsiphone bourbonnensis desolata*

**Orange-tailed Skink** (scinque de l'île Plate) *Gongylomorphus* sp.

**Ornate Day Gecko** (lézard vert) *Phelsuma ornata*

**Pink Pigeon** (pigeon des Mares/pigeon rose) *Nesoenas mayeri*

**Red-footed Booby** (fou) *Sula sula*

**Red-tailed Tropicbird** (paille-en-queue à brins rouges) *Phaethon rubricauda*

**Rodrigues Fody** (cardinal de Rodrigues/zoiso zon) *Foudia flavicans*

**Rodrigues Fruit Bat** (chauvre-souris de Rodrigues) *Pteropus rodricensis*

**Rodrigues Warbler** (fauvette de Rodrigues/zoiso long-bec) *Acrocephalus rodericanus*

**Roseate Tern** (goloñ) *Sterna dougallii*

**Round Island Petrel** (pétrel de l'île Ronde) *Pterodroma arminjoniana*

**Sooty Tern** (ye-ye) *Sterna fuscata*

**Telfair's Skink** (scinque de Telfair) *Leiolopisma telfairii*

**Wedge-tailed Shearwater** (fouquet) *Puffinus pacificus*

**White-tailed Tropicbird** (paille-en-queue à brins blancs) *Phaethon lepturus*

**Note:** The scientific name of a species is given upon first mention, thereafter only the common name is given.

Even though Mauritius is considered to have one of the most endangered biodiversities in the world, it is encouraging to know that through our conservation efforts with our partners the following five endemic bird species have been saved from extinction: the Mauritius Kestrel, the Pink Pigeon, the Echo Parakeet, the Rodrigues Fody and the Rodrigues Warbler. This ranks Mauritius as the lead country

in bird species recovery, ahead of the United States of America and New Zealand, each of which has saved four bird species from extinction. In addition, significant progress has been made in saving the Mauritius Fody, the Mauritius Olive White-eye, the Rodrigues and Mauritius fruit bats, and numerous species of rare endemic plants.



# Projects and Involvements

## Mauritius Kestrel (cr cerelle de Maurice)

*Falco punctatus*



Mauritius Kestrel  
juvenile

IUCN status: Vulnerable.

This is a small bird of prey, which feeds mainly on lizards but also catches insects, birds and small mammals. The Mauritius Kestrel usually lays its eggs between September and January, in a hole in a tree or cliff face.

It was once a common bird occurring throughout Mauritius, in both coastal areas and the mountains. More recently it became restricted to just three areas: the Bambous Mountains of the east coast, the Moka Mountains in the north, and the Black River Gorges area in the south-west. The population declined due to habitat destruction, hunting and, more recently, pesticide misuse. In 1974, only four individuals were known to remain in the wild, and it was feared that this species would become extinct.

The intensive conservation programme started in 1973, with captive breeding/rearing and release of birds, followed by continued management in the wild and the provision of nest boxes. The aim was to boost the remnant population around Black River Gorges and to restore kestrels to the Moka and Bambous mountains.

This project closely monitors the two kestrel populations, in the Black River Gorges National Park in the south-west, and the Bambous Mountains in the east. The small population reintroduced into the Moka Mountains in the 1990s is thought to have died out.

Monitoring of the Bambous Mountains population has enabled us to form a complete data set, from the first reintroductions in 1987 up to the present day. Each season the majority of pairs are found and their breeding attempts closely monitored, with almost all chicks being ringed to allow subsequent identification in the field. The resulting continuous data set of more than 95% known, ringed individuals is unique and has greatly added to our knowledge of the species and the factors that limit and influence its population, in turn improving our ability to conserve it.

Up to 75% of the east coast pairs breed in nest boxes, provided and maintained by MWF, making it easier for us to access and monitor them. In the west, by contrast, as many as 85% of breeding attempts occur in natural nest sites (cliff and tree cavities). This, and the more demanding terrain of the Black River Gorges, means that monitoring of this population is more difficult and cannot be as comprehensive as that in the east.



Kestrel chick

Following the recovery and growth of the population in the 1990s, monitoring of the west coast birds ended in 2002 but subsequently restarted in 2007 following some evidence of a decline. Fieldwork has confirmed this, revealing lower numbers than were found during the 1990s, with the kestrels' range having contracted, mostly in the dry forest areas in the north and south of their previous distribution. However, the population in the core of the range, in the Black River Gorges themselves, remains good and productivity is comparable to that found in the past, although it is slightly lower than in the east.



Endangered in 1994,  
down-listed to Vulnerable  
in 2000.

The Mauritius Kestrel  
recovery is the most  
spectacular of any raptor  
conservation programme  
in the world.

In the 2011/12 season, the west coast team found 38 pairs, fledging 31 young, and it is thought that this population numbers around 50 pairs in total. In the east, there were 52 pairs, fledging 53 young. This means that the total breeding population is around 100 pairs and, with fledged young and non-breeding individuals taken into account, we estimate the total population at the end of the breeding season to be about 400 individuals.

Due to the decline in numbers, especially in the west, we are considering taking additional measures to boost the population to 600 individuals and support it at that level. As tree cavities are in short supply (due to a lack of mature native trees), and many of the cliff cavities are of poor quality, we are increasing the number of nest boxes that we provide. We are also evaluating whether it is necessary to undertake captive rearing of eggs harvested from wild pairs, which would improve productivity since the wild birds will then produce a second lot of eggs and young.



Main Donors 2011/12

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7

MWF Annual Report 2011/12

## Pink Pigeon (pigeon des Mares/pigeon rose)

*Nesoenas mayeri*

IUCN status: Endangered.

Critically Endangered  
in 1994, down-listed to  
Endangered in 2000.



This medium-sized pigeon, with a pink body, brown wings and a broad rusty brown tail, is the largest pigeon/dove species in Mauritius. It feeds on leaves, flowers and fruits of native and exotic plants.

The Pink Pigeon was once widely distributed throughout Mauritius but by 1990 only nine individuals remained, restricted to a small area of upland forest in Black River Gorges. As a result, MWF commenced an intensive conservation programme, including captive breeding, with the ultimate goal of having a minimum of 600 free-living Pink Pigeons. This would be a huge step towards securing the long-term survival of this species.



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MWF Annual Report 2011/10

Main Donors 2011/12

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Captive breeding of this species was initiated in 1976, followed by the first Pink Pigeon releases in the wild at Plaine Lièvre in 1987. There are now seven sub-populations of the Pink Pigeon: six in Black River Gorges National Park and one on Ile aux Aigrettes (an island leased to MWF for conservation purposes). The latest sub-population was reintroduced in August 2012 to Pétrin, a release site which is a close collaborative project with the National Parks and Conservation Service. The current total population stands at around 400 birds in the wild.

Each sub-population is intensively managed by monitoring the individual birds and nests, supplementary feeding, predator control and disease management. Monitoring provides a large data set that enables us to learn more about the factors affecting the Pink Pigeon's survival. With more detailed analysis of the factors limiting the increase in their numbers we may be able to reduce these factors, thus increasing the number of birds in each sub-population.

For five years, we have monitored the flowering and fruiting patterns of selected native and introduced food tree species used by Pink Pigeons at each site (except the Lower Black River Gorges, where the monitoring started in 2012). The objective, once data collection is complete, is to analyze this data set alongside the feeding observations recorded during the past 20 years, so that we can know more about the natural food availability for the pigeons. This should enable us to carry out supplementary feeding in a more strategic way.

During 2011 and 2012, the Lower Black River Gorges sub-population continued to be increased by Pink Pigeon chicks harvested from Ile aux Aigrettes, hand reared at the Gerald Durrell Endemic Wildlife Sanctuary and released at the site in the national park. At Pétrin the approach has been to harvest fledglings from the mainland and, to a lesser extent, Ile aux Aigrettes. During the last six months of 2012, 11 young fledglings were released. The Pétrin and Lower Black River Gorges release sites are very important both to give access to new areas for the pigeons to colonize and to enable the general public to see the birds easily. Pétrin also acts as a link between two main population sites of pigeons at Plaine Lièvre and surrounding areas and Pigeon Wood, encouraging the birds to move from one population to another, thus improving genetic mix. All the sub-populations in the national park are now linked to some extent with birds moving between these sites.

Studies on the Pink Pigeon continue (*see the list of research studies on page 32*) with a PhD looking at the factors limiting the recovery of the species. An MSc studied the acoustic competition between the Pink Pigeon and the Madagascar Turtle Dove (*Nesoenas picturata*), as the latter could influence the breeding success of the Pink Pigeon and hinder its recovery. An exciting new development in genetic research looks at reintroducing missing genes into the free-living Pink Pigeon population, from the descendants of birds rescued and kept in captivity by Gerald Durrell in the 1970s, when it was thought that the species might become extinct. We are working towards a population of 600 Pink Pigeons, and the research projects are necessary in determining and adapting our strategies. In recent years we have worked on establishing additional sub-populations and another site being planned is in the Ferney Valley. This would bring the total number of sub-populations to 8, and with numbers of birds varying from 60 to 100 in each population we should be able to achieve our goal of 600 birds.



Examining  
a Pink Pigeon nest



Pink Pigeon chick



## Echo Parakeet (*grosse c teau verte*)

*Psittacula eques*

IUCN status: Endangered.

At least eight native species of parrot could be found in the Mascarenes when the islands were first colonized, but the Echo Parakeet is the only one surviving. Although similar to the introduced, and much more common, Ring-necked Parakeet (*P. krameri*) from India, the Echo Parakeet can readily be distinguished by the lower pitch of its call, shorter tail and darker green plumage.

These parakeets feed on flowers, leaves and fruit of native and exotic trees. The species was once common in Mauritius but began to decline in the mid-1800s, largely due to the destruction of native forest and predation by rats and monkeys. Common exotic birds, such as Indian Mynahs and Ring-necked Parakeets, also compete with the Echo Parakeet for food and nesting sites.

The population dwindled to just 8 to 12 known individuals in the late 1980s. However, due to the discovery of previously unrecorded breeding groups, the minimum population may have never been less than 20. Efforts to recover the Echo Parakeet were initiated in the early 1970s and were intensified by MWF, the Forestry Service, the National Parks and Conservation Service and the World Parrot Trust after 1987. The present wild population is restricted to less than 40 km<sup>2</sup> of remnant native upland forest within the Black River Gorges National Park.



The Echo Parakeet was the only species in the world to be down-listed on *The IUCN Red List* in 2007, from Critically Endangered to Endangered. This is the world's most successful parrot recovery programme.

This recovery project has used a wide range of conservation techniques including captive breeding at the Gerald Durrell Endemic Wildlife Sanctuary, the manipulation of wild breeding pairs, harvesting eggs and chicks from wild nests that are prone to failure and rearing these in captivity, and the release of chicks back into the wild. However, with the significant increase in population size, captive breeding is no longer required. Current techniques concentrate on supplementary feeding, provision of additional nesting sites in the form of nest boxes, habitat protection, regular inspection of active nests, and the weighing and monitoring of chicks to check condition. The wild population was estimated to be around 580 birds as of May 2012, with our goal of 600 birds now in sight.

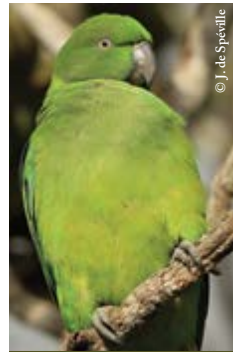
Over the past two seasons, the population of Echo Parakeets has grown steadily. In 2011, 81 of the monitored, breeding-age females laid eggs, and in 2012 the number increased to 94. Of the 220 eggs laid in 2011 and 264 in 2012, a total of 130 and 160 chicks fledged in the wild. In order to support the increase in breeding birds, 50 additional nest boxes in total were installed over the 2011/12 period, with the vast majority of them being accepted and used by the birds. Previously nest boxes were made of wood with a lifespan of 4–5 years, now they are made of longer-lasting PVC.

Research is an important component of the project (*see the list of research studies on page 32*), with one recent PhD study looking at genetics and disease, and a second at ecological immunology and population genetics. A post-doctoral study was conducted on how the highly contagious and fatal Psittacine Beak and Feather Disease virus has evolved in the Echo Parakeets, and an MSc study examined the prevalence of supplementary feeding amongst the Echo Parakeet population and how it relates to disease transmission. The research topics are chosen to provide us with a scientific base on which to manage the population.

As we approach 600 birds, our focus is now on identifying the minimum management needed to maintain this number. Primarily, this involves determining the levels at which we need to provide supplementary food and nest boxes. In order to further secure the population and guard against a catastrophic event in one area, we are investigating establishing a second population of Echo Parakeets in the Ferney Valley. To be able to do this, we will continue to monitor the population in Black River Gorges National Park. This will enable us to identify fledglings for harvest and transfer, to obtain a healthy and genetically balanced group of birds.

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Female Echo Parakeet



Monitoring Echo Parakeet nests



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MWF Annual Report 2011/12



## Passerines of Mauritius and Rodrigues

There are eight endemic passerine (or songbird) species, six on Mauritius and two on Rodrigues. They are all forest-living birds of which two, the Mauritius Fody (*Foudia rubra*) and the Mauritius Olive White-eye (*Zosterops chloronothos*), are the subjects of intensive recovery programmes. MWF works in close collaboration with the National Parks and Conservation Service in Mauritius and the Forestry Service in Rodrigues for the recovery of endemic passerines, with funding and support from international organizations and private sources. The other species, described briefly below, are not subjects of recovery programmes. However, the Mauritius Cuckoo-shrike (*Coracina typica*), Mauritius

Paradise Flycatcher (*Terpsiphone bourbonnensis desolata*), Rodrigues Fody (*Foudia flavicans*) and Rodrigues Warbler (*Acrocephalus rodericanus*) have recently been identified as suitable for future translocation to parts of their former range. A complete census of the two Rodrigues endemics was conducted in 2010, showing significant population increases.

In 2011, we started a three-year, island-wide survey in Mauritius of the native passerines in order to assess population sizes, confirm or identify trends and to look at their distribution across the island. We give some of the preliminary population results below.



Mauritius Paradise Flycatcher



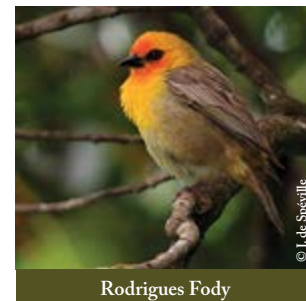
Mauritius Black Bulbul



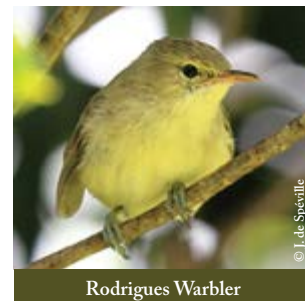
Mauritius Cuckoo-shrike



Mauritius Grey White-eye



Rodrigues Fody



Rodrigues Warbler

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MWF Annual Report 2009/10

### Mauritius

Our endemic song birds remain relatively poorly known and we are eager to develop the work on them, to improve our understanding and increase their numbers. The main approach has been to gain more information on populations and distribution, to learn about their ecology and life history and to conduct genetic studies. This latter area of research is showing that some of our birds are more different from their nearest relatives than we once thought.

Recent findings demonstrate that the Mauritian form of the **Mascarene Paradise Flycatcher** is genetically quite distinct from the nominate form on Reunion and may, when we do some more work on it, prove to be distinct enough to be regarded as a different species. Flycatchers were once widespread on Mauritius but are now found in scattered localities across the island. The provisional estimates indicate a population of about 800 individuals, which is much less than historically, and consequently we would like to re-establish additional populations.

The **Mauritius Black Bulbul** (*Hypsipetes olivaceus*) has a population scattered in the forests of the south-west and also a smaller number in the Bambous Mountains of the east. This species probably has a stable population and we estimate that there are about 800–1,000 individuals. This is still a relatively low number and we will continue to work with this species. Threats include competition from exotics, such as the Red-whiskered Bulbul (*Pycnonotus jocosus*) and Indian Mynah (*Acridotheres tristis*), nest predation and habitat destruction.

The **Mauritius Cuckoo-shrike** population was estimated at 260 pairs by 1993, and our recent survey has shown there has been no major change in their numbers with an estimated 225–300 pairs, although we still need to do more work to confirm this result. Past declines have been linked to pesticides, predation by introduced mammals and habitat destruction. The cuckoo-shrike is found mainly in areas of mature forest and the best population is in an area of restored forest in the uplands around Brise Fer. This species is a conservation priority and we aim to carry out some in-depth studies. We may need to undertake management of the species and would like to re-establish a population in the Bambous Mountains, from where it disappeared in the middle of the last century.

The only passerine that is not threatened is the **Mauritius Grey White-eye** (*Zosterops mauritanus*), with an estimated population of 34,000–68,000 pairs. This species is common all over Mauritius.

### Rodrigues

Rodrigues had at least 12 endemic bird species of which only the Rodrigues Fody and the Rodrigues Warbler remain. MWF has carried out regular censuses on the remaining endangered passerine species, both of which reached very low levels in the 1970s. We have restored some forests by planting with native plants in nature reserves and this increase in the amount of habitat has resulted in the spectacular recovery of these birds. Further habitat restoration will contribute to their long-term survival, although cyclones can still be responsible for population declines. Our staff record all sightings of both species, which tells us whether the birds are moving/spreading to new locations.

The once abundant **Rodrigues Fody** declined dramatically to around 6 pairs in 1968 because of habitat destruction, although the population is now increasing, with around 900 individuals counted in 1999 and 8,000 in 2010. This is one of the most successful recoveries in the history of avian restoration. Predation by rats and cats is still a threat and the species is classified as Vulnerable. MWF is considering reintroducing the bird to other forested areas where it once existed.

The **Rodrigues Warbler** was reduced to a population size of around 17 individuals in 1982, increasing to around 500 individuals in 1999 and 4,000 in 2010. Although the population is growing, the species remains Endangered. MWF is considering establishing additional populations on Ile Cocos, Ile aux Sables and in the Anse Quitor region.

## Mauritius Fody (cardinal de Maurice)

*Foudia rubra*



Male Mauritius Fody in breeding plumage  
Critically Endangered in 1994, down-listed to Endangered in 2009.

IUCN status: Endangered.

The Mauritius Fody is a small forest-dwelling songbird, which feeds on insects, nectar, some fruit and seeds. It resembles the introduced, and much commoner, Madagascar Fody (*F. madagascariensis*), with which it can be confused. One distinguishing feature is that the male Mauritius Fody has a red head and breast during the breeding season, whereas the male Madagascar Fody also has completely red underparts. Both male and female Mauritius Fodies have white wing bars, unlike the Madagascar Fody. They also have a thinner bill, which they use to probe for invertebrates, whereas the Madagascar Fody has a thicker bill as it feeds predominantly on seeds.

The Mauritius Fody is one of the rarest endemic birds of Mauritius, with about 250 wild birds remaining in upland forests in 2011/12. The loss of suitable habitat has been a major threat to this species, as well as nest predation. We have successfully established a second population of Mauritius Fodies on Ile aux Aigrettes, significantly increasing the numbers of this rare bird.



Female Mauritius Fody

The conservation programme for the Mauritius Fody aims to increase numbers by establishing additional populations on islets as well as looking after the population on mainland Mauritius. The translocation of Mauritius Fodies to the islets began in 2002, and by 2004 a population had been reintroduced to Ile aux Aigrettes. In 2012, there were around 170 birds on Ile aux Aigrettes, the result of the releases and subsequent breeding, and with about 250 birds in the wild on mainland Mauritius this gives an overall total of around 420 birds. Efforts are now concentrating on monitoring and management of the Ile aux Aigrettes population, including providing additional food. Monitoring improves our knowledge of the species, which in turn can contribute to the development of long-term management strategies. We have gained valuable insights into the breeding and foraging ecology of the Mauritius Fody and have discovered that as numbers of birds on the islet have increased, territory size and breeding success rates have declined. Thus, the population size of around 170 birds appears to be the carrying capacity of the islet with management. This information can be used when planning future translocations to other islands.

Following the translocation to Ile aux Aigrettes, we attempted a release of Mauritius Fodies onto Round Island. Preparations for the translocation progressed with disease screening of the exotic birds and a cull of House Sparrows (*Passer domesticus*) on the island, to assess and reduce potential for disease transfer and resource competition. The trial translocation, using 30 birds, took place at the end of 2010. However, due to predation by Keel-scaled Boas (*Casarea dussumieri*), only one bird survived more than six months. In an attempt to investigate whether this bird could teach survival strategies to other birds, a further 10 Mauritius Fodies were released on Round Island in 2011. Although one pair was formed and laid fertile eggs, all the translocated birds gradually disappeared from the island and by June 2012 none remained. These trials have provided us with valuable information and in future we will not translocate endangered passerines to islands with populations of boas.

The establishment of the Ile aux Aigrettes population has been a great success, and although the IUCN status of the species was downgraded in 2009, this does not mean that the Mauritius Fody is safe from extinction. The isolation of the remnant populations, both on Ile aux Aigrettes and the upland forests, makes them vulnerable to catastrophic events, such as a disease or extreme weather conditions.

The passerine survey is updating our knowledge about the mainland population, particularly regarding where the birds are and in what numbers. It aims to identify the habitat preferred by fodies, which will guide how we manage the different vegetation types to benefit them and it will inform us on how the fody will respond to future changes. Our long-term plan is to maintain or expand the mainland population, whilst also increasing the numbers of birds on islands in order to safeguard the species and ultimately downgrade the status to Vulnerable.



Fody chicks

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## Mauritius Olive White-eye (oiseau à lunettes)

*Zosterops chloronothos*

IUCN status: Critically Endangered.

This is a small songbird that feeds primarily on nectar, but also on insects. It is easily identified by its white eye-ring, olive-green plumage and fine curved bill. It is likely that this bill has been adapted over time for improved nectar feeding.

The recent 2011 and 2012 surveys show that the number of birds has declined from around 250 (in 2001) to approximately only 150-200 birds, found mainly in the Black River Gorges National Park. Numbers had declined continuously over the previous 100 years, largely due to habitat degradation and nest predation by mammals and other bird species, both native and exotic. Between 1975 and 2001 the habitat range of the Mauritius Olive White-eye contracted by 50%, with the species occupying less than 25 km<sup>2</sup> on mainland Mauritius. In 2011, our survey revealed that the habitat range has slightly expanded but with fewer birds in each area.



Olive White-eye egg and chicks

In 2005, with the decline of this beautiful small passerine, MWF began a project to safeguard the species. The wild population was closely monitored to find nesting attempts and to learn as much as we could about its ecology and behaviour. Where possible, the contents of nests that were at risk from predators were rescued and the eggs and chicks taken to the hand-rearing facility at the Gerald Durrell Endemic Wildlife Sanctuary. Between 2006 and 2010 this work resulted in the rearing and subsequent release of 38 Olive White-eyes onto Ile aux Aigrettes, although not all of these survived.

Following the first breeding attempts on Ile aux Aigrettes in 2007/8, from which no birds fledged, there have been many breeding attempts followed by the successful fledging of birds. The number of adult birds on the island has been increasing and at the end of the 2011/12 season the population stood at 35 birds. A reliable food supply is necessary to ensure that the adult birds are in breeding condition and then to support the survival of chicks to fledging. In order to boost food supplies, feeding stations are placed in each territory across the island. Studies are being conducted to identify the effects of this feeding on the breeding success of the birds.

As part of this project we also devote time to examining limiting factors on the populations. From our recent research, we have identified that in the sample we looked at the provisioning rate of food delivered by the parent birds to the chicks does not affect nesting success. However, it may be quality of food rather than quantity that caused the failure of nests in the past, or some as yet undiagnosed problems. In 2009/10, we began investigating other types of management that could improve nesting success in the Combo population in the south of the Black River Gorges National Park. Rats are a major cause of nest failure for endemic birds, so to identify how much of an impact they have we conducted poison trials to kill rats in nesting territories. In 2010/11, we found that nesting success was higher for pairs in



Nest building

territories baited with rat poison, and we are continuing these studies to get a better understanding of how rats affect the white-eye population.

Future plans for the white-eye include the continuation of monitoring of both populations, especially to look at the factors that influence nesting success. On Ile aux Aigrettes all the white-eyes are individually recognizable by different combinations of colour rings and at Combo we have caught some of the wild birds in mist-nets and ringed them to make their identification easier, enabling us to learn more about their survival, breeding success, pairing, productivity and movements. We can now compare the two populations and get an insight into how they function. Our overall aim is to increase the wild population while the island population is still establishing and to continue improving our knowledge of the habits and needs of this charismatic bird so that we may support a growth in numbers.



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Ringed chick



# Seabird Translocation

Of the 49 offshore islets around Mauritius only a few have significant seabird populations, in particular Round Island and Serpent Island support some of the largest or sole breeding colonies in the Indian Ocean. Many other islets had seabird populations but these disappeared with poaching and the introduction of predatory feral cats and rats. Seabirds are becoming increasingly threatened and at a faster rate globally than all other groups of birds. Our long-term aim is to increase the populations of seabirds on a number of the offshore islets, using translocation to ensure the survival of these species.

The reintroduction of seabirds to Ile aux Aigrettes aims to restore a lost community and reactivate the missing ecological interactions. Seabirds bring nutrients onto an island in their droppings, regurgitated food, moulted feathers and unhatched eggs, and their reintroduction should improve the fertility of the soil, promoting plant growth. A seabird colony will also attract increased numbers of insects and other invertebrates, providing food for Telfair's Skinks (*Leiolopisma telfairii*), geckos, Mauritius Fodies and



Red-tailed Tropicbird

Olive White-eyes. Although there have been successful reintroductions of seabirds elsewhere, this will be the first multi-species reintroduction aspiring to restore a whole seabird community.

Seabirds display a natural phenomenon called philopatry, whereby chicks are imprinted to the place of their birth. This means that after fledging and having lived offshore or in open seas for several years, the birds return to the island from which they fledged. This is usually for an exploratory visit and, on that or future occasions, for breeding. The seabird programme manipulates this behaviour by translocating chicks at a sufficiently young age to a predator-free island so that the birds imprint there. These chicks must then be hand-reared until they fledge. The translocated chicks should return later to breed.

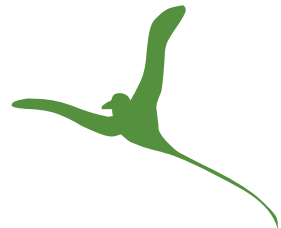
MWF has run a pilot seabird project for two years, spanning 2009 to 2011, involving small numbers of Wedge-tailed Shearwaters (*Puffinus pacificus*), White-tailed Tropicbirds (*Phaethon lepturus*) and Red-tailed Tropicbirds (*P. rubricauda*), which were harvested as chicks from Round Island and released on Ile aux Aigrettes to fledge from artificial nest boxes. Chicks were reared on a diet of squid, octopus and small fish and were ringed to enable identification. Although seabirds have since been heard flying over the island, in 2012, it has not been possible to identify whether these are in fact translocated birds. This is encouraging since on other islands Wedge-tailed Shearwaters and the two tropicbird species have been found to return for the first time after around four years, although earlier non-breeding visits have been recorded.

The project was postponed during 2012, but for 2013 we aim to work towards the long-term goal of further reintroductions to other islets, building on the expertise acquired so far, refining existing techniques and developing new ones as appropriate. Actions based on Ile aux Aigrettes will include investigating other methods of establishing seabirds on islets, such as using 'playback' of their calls and decoys. During the pilot phase the work was with readily available seabirds from Round Island but in 2013 the species will include Common Noddies (*Anous stolidus*) and Sooty Terns (*Sterna fuscata*) collected from Serpent Island.

These translocations will lay the groundwork for more challenging seabird restoration work, such as the establishment of some of the rarer seabirds including the Round Island Petrel and Red-footed Booby (*Sula sula*). Further in the future it is hoped to reintroduce species that have been lost to Mauritius completely, such as Abbott's Booby (*Papadula abbotti*), in order to increase the seabird biodiversity.



Sooty Tern



## Fruit Bats

Bats are the only mammals native to the Mascarenes. There used to be three fruit bat species on these islands: one is now extinct, leaving one species each on Mauritius and Rodrigues. They feed on fruit and the nectar of flowers, and both species play an important role in the pollination of fruiting trees and dispersal of their fruit.



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### Mauritius Fruit Bat (*chauve-souris de Maurice*)

*Pteropus niger*

IUCN status: Endangered.

The Mauritian species is a large bat that can be seen flying at dawn and dusk, using both sight and smell to find trees in fruit. These are social bats which usually roost together in large numbers. Once widespread over Mauritius, the population has decreased considerably due to habitat loss, cyclones and illegal sport hunting.

The Mauritius Fruit Bat became extinct on Reunion, where it was last recorded in 1790. However, the island has been recolonized by a handful of individuals over the last decade.



Although the Mauritius Fruit Bat exists in relatively high numbers (around 50,000), it recently faced new and serious threats to its existence. Despite the bat's IUCN listing, the Mauritian Government considered the possibility of amending the law to reduce legal protection and introduced an experimental culling and sterilization plan, in order to protect the interests of fruit farmers. MWF has provided scientific and management advice to the Government to convince the decision-makers that these plans were unrealistic and unworkable. The extent to which this fruit bat takes lychees in comparison to other fruit eaters (such as the Ring-necked Parakeet, Indian Mynah, Red-whiskered Bulbul, and rats) has not been scientifically determined. Since 2009, positive steps have been taken by the Government, with a campaign for the protection of farmed fruit, the introduction of subsidies on the cost of nets to protect fruit from bats and birds, along with a grant scheme to purchase the nets which was extended up to 2012. The Government has also invited experts from the IUCN Chiroptera Specialist Group to advise on the issues related to the bat, has given assurances that culling is no longer on the agenda and seems to have abandoned the idea of a sterilization programme, which is not practical. However, the amendment to the laws to reduce protection may still remain a possibility, calling for vigilance from conservation organizations.

The current population size may seem to be high, but this fruit bat was up-listed from Vulnerable to Endangered by the IUCN in 2008, due to its reduced range, the decline in the extent and quality of its habitat, and the impending threat of legalized culling. This status is under revision.

### Rodrigues Fruit Bat (*chauve-souris de Rodrigues*)

*Pteropus rodricensis*

IUCN status: Critically Endangered.

This bat used to be found on Mauritius and Rodrigues but is now found only on Rodrigues. It is often known as the Golden Fruit Bat.

In the 1970s, the population dwindled to between 70 and 100 individuals but has now recovered to several thousand, largely due to increased forest cover and protection. These bats are threatened by cyclones, one of which severely affected the population in 2003. The bats are counted regularly in order to assess the impact of weather, including droughts, on their numbers.

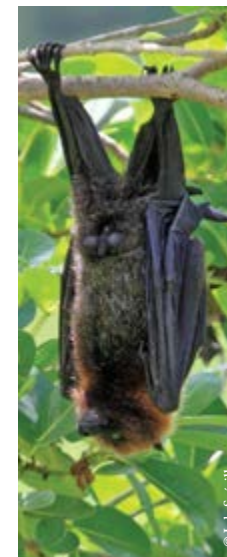


Three island-wide population surveys were conducted in both 2011 and 2012 at over 17 roost locations, in order to estimate current bat numbers. Regular bat surveys are also conducted at the Cascade Pigeon roost, one of the major roost sites on the island. From these surveys it has been found that the number of individuals now stands at between 10,000 and 15,000. Volunteers from the local community have been trained to carry out some of the work, in addition to MWF staff, so that we can continue with this level of monitoring in the future.

An Annual Bat Day/Festival was held in May 2011 and May/June 2012 to educate the public about this species and its importance in the ecosystem. In 2011, a half-day of activities was organized in 8 pre-primary schools, reaching over 450 students, including elements such as a talk on bats, bat colouring picture, hat making, face painting, and bat-shaped butter cookies. In addition, a 12-piece jigsaw puzzle of a bat was produced and distributed to all pre-primary and primary schools in Rodrigues. In 2012, MWF concentrated on the villages for its bat festival and gave a talk on bats to over 150 people in 7 villages across Rodrigues. The villages chosen were the ones that host bat roosts. Plans for the 2013 bat festival include the use of a 15-minute film entitled *Treasure of Rodrigues: the Rodrigues Fruit Bat* and an accompanying poster.

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In September 2012, The Alliance for Zero Extinction (AZE) launched a global poll to raise public awareness about rare species limited to just one location. Members of the public could choose from a shortlist of 20 locations, and Rodrigues with its fruit bat was included. In the results, announced in 2013, the Rodrigues Fruit Bat was in the top 7 Wonders, receiving the most votes. Go to [www.zeroextinction.org](http://www.zeroextinction.org) to find out more.



# Reptile Conservation Project



Before colonists arrived in Mauritius some 400 years ago, it was an island of unique reptiles and birds. The reptiles flourished and adapted to fill many of the roles that mammals usually occupy: giant tortoises were the grazers and browsers; snakes and some of the birds ate smaller reptiles; and lizards helped disperse plant seeds and pollinate flowers.

However, the colonists introduced a number of invasive animal and plant species, and cut down much of the original forests, causing the loss of more than 60% of the unique Mauritian reptiles from the main island. Five endemic reptile species became extinct. Some species survived on a few of the offshore islands, which remained predator free. In Rodrigues, all endemic reptiles became extinct.

Prior to the Reptile Conservation Project, the majority of Mauritian reptiles were restricted to either Round Island or one of six other islands around Mauritius.

The re-establishment of reptile communities within Mauritius is an initiative building on over 35 years of reptile research and offshore island conservation management by the Government of Mauritius, Durrell Wildlife Conservation Trust and MWF. This project began in 2006 and involves the translocation of vulnerable reptile species to other islands to form new populations and thus enhance their chances of survival. These new populations are monitored to assess their success and also to discover more about the reptiles' role within the ecosystem.

Reptile conservation in Mauritius faces many challenges in terms of continuous introductions of alien predators and competitors, destruction of habitat, disturbance from camping, illegal fires and littering. Alien predators have had the greatest impacts during the 2011/12 period, particularly the Asian House Shrew invasion of Flat Island that decimated the reptile community. Despite substantial conservation challenges, the project continues to make significant progress, such as preventing the extinction of the Orange-tailed Skink (*Gongylomorphus* sp.).

Telfair's Skinks on Gunner's Quoin continue to thrive; an additional 100 skinks from Round Island were released into the Gunner's Quoin population in 2012 to ensure genetic robustness. The population on Gunner's Quoin numbered 5,000 in late 2012. The success of the skink population on Gunner's Quoin has permitted the reintroduction in 2012 of 60 Keel-Scaled Boas, the skinks' key predator. Adult Telfair's Skink survival on Ile aux Aigrettes is high, although too few juveniles survive to permit population growth, therefore artificial nesting bins and enclosures have been created to head start skinks to enhance survival. Monitoring has demonstrated how important skinks are for dispersing seeds from endemic plants, with reintroduced skinks supporting the population growth of the critically endangered aloe (*Aloe tormentorii*).



The 2010 release of 50 adult Guenther's Gecko (*Phelsuma guentheri*) on Ile aux Aigrettes from Round Island has proved very successful. At least 248 geckos have hatched on the island to date, with many of the first generation now breeding. Despite being one of Mauritius' largest lizards, they are notoriously difficult to monitor and new monitoring techniques are being trialled on the island. The population in late 2012 was about 180 individuals.

The shrew invasion of Flat Island has caused the loss of three reptile species living there. Fortunately, before the shrews arrived, Orange-tailed Skinks had been translocated to Gunner's Quoin in 2008, and additional skinks were translocated to Gunner's Quoin and Gabriel Island in 2010, after the arrival of shrews. In 2011, 22 individuals were taken into captivity at Durrell for captive breeding. There are now four healthy breeding sub-populations on Gunner's Quoin and the captive population has more than doubled. Had these actions not been taken, this skink would now be extinct.

The Flat Island Bojer's Skinks (*Gongylomorphus bojerii*) were the largest population and about 80% of the world population was lost as a result of the shrew invasion. However, on a more positive note, management of the south-eastern form of Bojer's Skink, since 2007, means there are now three island populations instead of one, and this population has quadrupled.

Another reptile loss on Flat Island was the Lesser Night Gecko (*Nactus coindemirensis*). Captive-bred geckos from Durrell and wild-caught individuals from Ile aux Aigrettes were translocated to Ile Marianne in 2011. The translocated population is healthy, breeding and has become the second population in the south-east of Mauritius.

Future plans include the continued monitoring and management of the reptile populations, translocations of Bojer's Skinks to enhance genetic robustness and survival, testing monitoring techniques for cryptic species, a survey of the reptiles of Rodrigues, and research into the impact of reptile translocations on the ecosystem.



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# Tortoise Re-wilding



Radiated Tortoise on Round Island

Two distinct groups of giant tortoises could once be found on the Indian Ocean islands: the Seychelles islands tortoises and the Mascarene islands tortoises, with several different species recognized. Both Mauritius and Rodrigues had two species (*Cylindraspis inepta* and *C. triserrata*; *C. peltastes* and *C. vosmaeri*), each island of which had a dome-shaped tortoise and a saddleback tortoise, while Reunion is thought to have had a single dome-shaped species (*C. indica*). These tortoises filled many of the roles usually held by mammals (grazers, browsers and seed dispersers). Once humans arrived on the island, the tortoises were harvested as a food source and their young were killed by introduced animals such as pigs, cats, dogs and rats. The sole surviving species of giant tortoise in the Indian Ocean is the Aldabra Giant Tortoise (*Aldabrachelys gigantea*) from Aldabra in the Seychelles.



Hand-reared Aldabra Giant Tortoise

With the extinction of the tortoises, many ecosystem interactions such as grazing and seed dispersal were disrupted. As part of the ecosystem restoration, MWF released 20 Aldabra Giant Tortoises on Ile aux Aigrettes in 2000, as an analogue for the extinct Mauritian species. These tortoises have been allowed to roam free on the island since 2004. They are now producing hatchlings that are collected and taken to be raised at the Gerald Durrell Endemic Wildlife Sanctuary in Black River. These are translocated to Round Island once they are considered to have reached an appropriate size.



Aldabra Giant Tortoise on Round Island



Checking translocated tortoises on arrival

In 2007, a PhD study into the use of analogues in the conservation of plant communities involved the translocation of 12 sub-adult Aldabra Giant Tortoises and 12 adult Radiated Tortoises (*Astrochelys radiata*) to Round Island. The study showed the benefits of reintroducing tortoises to the island's ecosystem, re-establishing the lost grazing and seed dispersal, and we are now working on increasing the population of tortoises on the island. Between December 2010 and December 2012, 240 juvenile tortoises were released onto Round Island and we have planned a translocation programme of 50 tortoises annually, with a goal of establishing 500 individuals.

Monthly monitoring will focus on the health and growth of the tortoises. We will also be conducting bi-annual vegetation and invertebrate abundance surveys to fully assess the impact of the tortoises.



Transporting tortoises

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# Rare Plants

## Mauritius Rare Plants

Mauritius has been ranked by the IUCN as having the third most endangered flora in the world. Over 200 of the 267 endemic plant species are threatened and Mauritius may already have lost as many as 70 plant species.

Four centuries of large-scale forest clearance for agriculture and urban development, combined with the introduction of invasive species of plants and animals, has had a disastrous effect on the native flora. Some endemic plants such as the palm *Hyophorbe amaricaulis* have been reduced to just one individual in the wild.



The field work concentrates on searching for rare plants and, when found, monitoring their progress. For the rarest plants we will collect seeds and cuttings for artificial propagation.

Some of the information is used to update *The IUCN Red List* and when appropriate we collect plant samples for the Mauritius Herbarium, where they are used for further study.

The field gene bank is an area where we grow the rarest plants in a fenced and managed plot. Several individuals of each species are grown to preserve genetic variation. The plants are all carefully labelled so that we know the history and provenance of each individual. In 2000, a project was set up in the uplands, at a site known as Pigeon Wood, as a joint project between the National Parks and Conservation Service (NPCS) and MWF, and we have our own lowland site on Ile aux Aigrettes. For the most endangered species, cuttings, seeds and seedlings are taken for propagation to Pigeon Wood nursery in the Black River Gorges for upland plants, and to Ile aux Aigrettes for lowland ones. Successfully propagated individuals are planted in the Field Gene Bank, in Pigeon Wood, and some are distributed to the NPCS and Forestry Service. Plants in the gene bank are monitored and regular maintenance weeding is carried out in collaboration with NPCS. These plants will be propagated on a larger scale in different nurseries for future restoration projects.

On Ile aux Aigrettes, out of the 23 species of rare plants that were propagated during this period, 22 were successful. Planting is usually done



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during the rainy season, January to April. The plants are given a unique code, tagged and regularly monitored. During 2011/12, 101 individuals were planted on the island. In Pigeon Wood, 23 species have been propagated with 18 successes and 92 upland plant individuals of these species were planted in the Pigeon Wood Field Gene Bank.

Rare plant searches continue to increase the number of known individuals. For example, bois amer (*Carissa spinarum*), a critically endangered Mascarene endemic plant, was previously thought to be restricted in Mauritius to a single wild individual on Guibies Peak, Port Louis Range. Recently, during rare plant surveys, 5 new populations were located, totalling 29 individuals. All individuals were in relatively good habitat forest, despite the presence of introduced invasive alien plants, although only limited planting materials could be obtained for propagation in the nursery. However, we have advised on habitat restoration, which has been implemented in collaboration with the Government and private sector. The wild plants are now being closely monitored and, in some areas, micro-management of individual bois amer has been carried out.



**Plant phenology** is the study of the timing of flowering, fruiting, leaf shedding and leaf growth, and how this is influenced by seasons and weather.

Some of our birds have become endangered because of seasonal shortages of the flowers and fruits on which they feed. Studies were set up in February 2007 to understand the patterns of flowering and fruiting of the food plant species of our native birds and document the quality and quantity of natural food in different habitats. Some 20 individuals of 48 native and 16 introduced food plant species at 5 field stations have been permanently tagged along main tracks. Phenological data from these plants are recorded monthly on observation sheets. Significant relationships between flowering, fruiting and leafing to month, site and individual trees have been found. Phenology calendars have been produced for 43 native and 16 introduced species, providing useful tools for conservation of the species and for studying the impacts of climate change or variability on phenology. The study has not been going long enough to show any effects of climate change. However, initial analysis shows that rainfall variation does not significantly affect phenological traits for the studied species.



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Mauritius Research Council





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*Ramosmania rodriguesii*

## Rodrigues Rare Plants

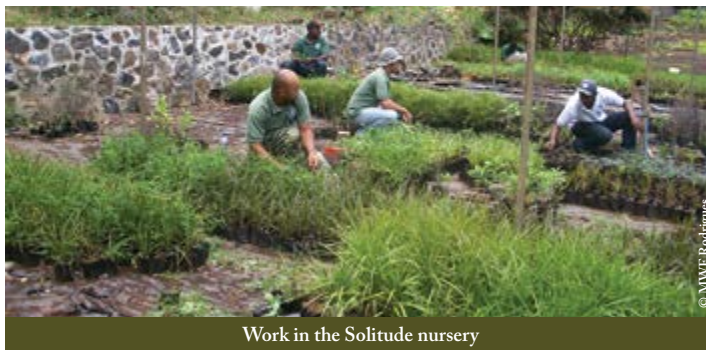
Invasive alien woody weeds dominate all forest areas on Rodrigues and, with the exception of intensively restored areas in the nature reserves, no contiguous areas of native forest exist. Elements of the original biodiversity do remain in some forest fragments, but without restoration work these will degrade into thickets of entirely introduced vegetation of the type that covers much of the island.



© MWF Rodrigues

Weeding around café marron plants

Rodrigues, with its highly endangered flora, has had an active rare plant conservation project for over two decades, although initially this work was modest. In collaboration with the Forestry Service, a larger, improved nursery was erected in 1996 at Solitude to produce native plants for the restoration of both Grande Montagne and Anse Quitor nature reserves, and more recently Ile Cocos and Ile aux Sables. In addition, the nursery is used to train local villagers in horticultural techniques to improve native plant production in backyard and village nurseries, and plants are propagated for donation to schools and villages. Propagation trials of rare Rodriguan endemic species are conducted at Solitude.



© MWF Rodrigues

Work in the Solitude nursery

Plant conservationists have invested a great deal of effort in recent years in locating, propagating and reintroducing Rodrigues' rarest plant species into protected areas. In some cases this has resulted in saving species that were close to extinction. Recently, we have succeeded in propagating two very rare endemic species through cuttings. The endemic *Gouania leguati*, which has only one population remaining in the wild, and the *café marron* (*Ramosmania rodriguesii*), with only one remaining individual in the wild, are both being propagated in the MWF Solitude nursery. For World Biodiversity Day 2012, MWF reintroduced 40 *café marron* seedlings to Grande Montagne Nature Reserve, which was an historic event as this species was once thought to be extinct and only 10 seedlings had been planted previously. The recovery work is not yet complete since the propagation methods are still being mastered. As seedlings in the nursery grow, more individuals will be reintroduced across Rodrigues and these will need to be closely monitored.



© V. Tarrach

*Doricera trilocularis*



# Habitat and Island Restoration: Mauritius



Juvenile Keel-scaled Boa

## Round Island

Round Island is situated 22.5 km north-east of Mauritius and is 214 ha in size. It has often been stated to have more endangered species per unit area than any other comparable area on earth. The last remnants of palm savannah are found there, including latanier (*Latania loddigesii*) and palmiste blanc (*Dictyosperma album* var. *conjugatum*).

The island is the only location for Durrell's Night Gecko (*Nactus durrelli*) and, until recent translocations, the Keel-scaled Boa, Telfair's Skink and Guenther's Gecko. Also important are the breeding seabirds, with relatively large populations of Wedge-tailed Shearwaters and tropicbirds. It is the only known breeding location for the Round Island Petrel, and sole known Indian Ocean breeding population for Bulwer's Petrel (*Bulweria bulwerii*).

The island was classified as a nature reserve in 1957 and is administered jointly by the National Parks and Conservation Service and MWF.



The main priorities on Round Island are to restore the plant community and to monitor and manage the reptiles and seabirds. Over the past decade, work has progressed with the presence of the field station and wardens, who have the day-to-day responsibility for activities on the island.

The intensified effort to restore the native forest and herb community that once flourished on Round Island continues. The Round Island nursery produces about 1,500 plants from seeds and cuttings of trees and shrubs that are collected on the island. In addition we also propagate the Round Island Bottle Palm (*Hyophorbe lagenicaulis*), bois de chandelle (*Dracaena concinna*) and vacoas (*Pandanus vandermeeschii*). These species are also naturally regenerating on the island and during the rainy season we do direct transplanting of seedlings from around mother plants to planting sites.

The recently adopted method of planting in shallow soil of less than 20 cm ensures that plants are not damaged by shearwater burrowing activity, which occurs mainly in deep soil areas. Plants are watered weekly throughout their first year. Plant survival is monitored annually.

Weed management is a high priority, particularly of the high-risk invasive exotic species such as *Heteropogon contortus*, *Chromolaena odorata*, *Sporobolus capensis* and *Mikania micrantha*, the spread of which could hinder restoration efforts. A strict quarantine protocol remains in place to prevent introduction of new plant and animal species.

The different reptile populations continue to be monitored and all are increasing, except for one which is stable. Monthly boa searches were carried out and more boas were tagged with permanent microchip markers. Telfair's Skinks were translocated to Ile aux Aigrettes and Gunner's Quoin, and 60 Keel-scaled Boas were translocated to Gunner's Quoin, to establish an additional population of this snake. The introduced Aldabra Giant Tortoises and Radiated Tortoises roaming free on the island preferentially graze on exotic plants and disperse native seeds. Fifty additional Aldabra Giant Tortoises were released in 2011, which will be followed by further annual translocations (see page 16).

The Round Island Petrel is unique in that it is also a mix of two other species: the Herald Petrel (*Pterodroma heraldica*) and the Kermadec Petrel (*P. neglecta*). This is the only known three-way hybrid bird population. Monitoring is carried out monthly, with the ringing of chicks and un-ringed adults, so that now nearly all of the birds are ringed. For the much larger populations of Red-tailed Tropicbirds and White-tailed Tropicbirds, monitoring is restricted to an area close to the field station. In 2011, translocations of both species of tropicbirds and the Wedge-tailed Shearwater were carried out from Round Island to Ile aux Aigrettes (see page 13). The Round Island Petrel movement study carried out in collaboration with the University of Reading was continued, with more geo-locators deployed on birds. The birds are captured a year or more later, the geo-locators removed and the data downloaded onto a computer. These petrels remarkably travel over most of the Indian Ocean. Similarly, the University of Reunion has been placing geo-locators on Wedge-tailed Shearwaters, Red-tailed Tropicbirds and White-tailed Tropicbirds, to understand dispersal and foraging.

Round Island is a highly prized conservation gem and a great deal can be learnt from the restoration of this island.



Telfair's Skink



## Ile aux Aigrettes

Located in the bay of Mahébourg about 800 m off the south-east coast of Mauritius, this 26-ha island of coralline limestone, partially overlain with sand and humus deposits, is what remains of an eroded dune exposed after a drop in the sea level some 10,000 years ago.

Previously much degraded and weed invaded, this islet is the last refuge of the dry coastal forest, an ecosystem once common around Mauritius.

Free from human presence for a long time, Ile aux Aigrettes became a natural museum with a remarkable collection of endemic species of Mauritian fauna and flora. However, the arrival of humans on the islet in the early 1600s disturbed and almost totally destroyed this island ecosystem. Tree felling, particularly of ebony, continued even after the island was first declared a nature reserve, in 1965.

MWF started a habitat restoration project here in 1985, taking over full management of the island in 1987. Now it is possible to witness animal and plant species unique to Mauritius living in a habitat restored, as closely as possible, to its natural state of 400 years ago. Since 1998 members of the public have been able to take a tour of the island, as part of our visitor programme, to experience this transformation for themselves.

Restoration work on the island began with a weeding programme to eradicate introduced invasive plants such as the faux acacia (*Leucaena leucocephala*) and prune malgache (*Flacourtia indica*). The forest was then replanted with native plants, including a rare species of ebony (*Diospyros egrettarum*) with which the island was once covered. The next step was to eradicate introduced predators such as rats, paving the way for the reintroduction of native fauna. In 1997, a new nursery was built for the propagation of endangered native plant species for planting on the island.

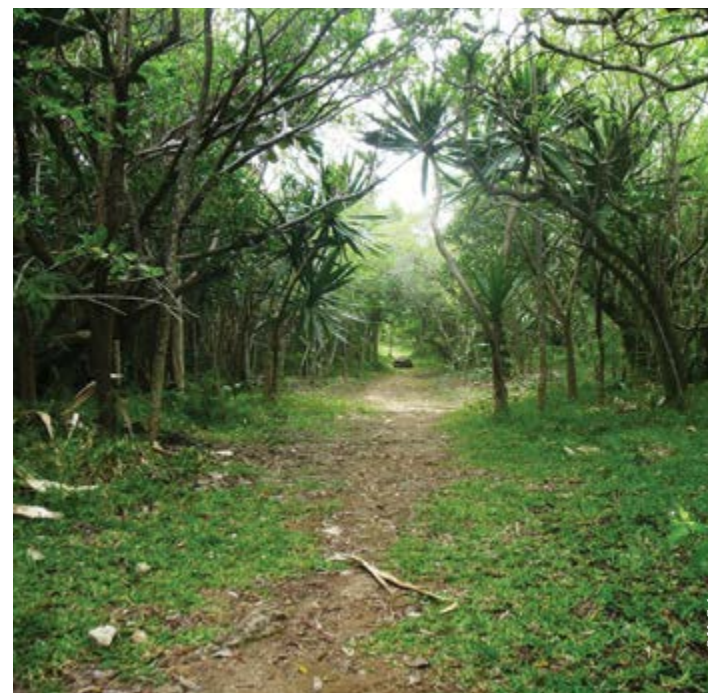
Following the establishment of the native forest, we began to reintroduce endemic species of birds and reptiles, including Pink Pigeons, Mauritius Fodies, Mauritius Olive White-eyes, along with the Aldabra Giant Tortoises (to replace the extinct giant tortoise once found here), Telfair's Skink and Guenther's Gecko. More recently there have been seabird translocations (see page 13).

The coastal forest of Ile aux Aigrettes is now regenerating. The nursery produces 7,000 plants annually of 60 different species for use in projects, including the Rare Plants Project. As from 2013 we plan to produce 10,000 plants annually. We grow nectar-producing plants for endemic passerines and tussock grasses for tortoises and seabirds, as well as plants for donations. Up to 1,000 of the plants produced annually on Ile aux Aigrettes are sent to Round Island for planting during the rainy season.

MWF hired 16 labourers between May and July 2011 and a total of 442 grid squares representing 6.90 ha (26.5% of the island) were weeded.

Between February and June 2012, free labour provided by Riche en Eau Sugar Estate contributed towards the weeding of 336 grid squares with the worst infestations. And between July and October, 15 labourers were recruited to weed 459 grid squares, making a total for 2012 of 795 grid squares, representing 12.42 ha (47.80% of the island). The weeded biomass which was disposed of previously by controlled burning is now carefully stacked to provide shelter for the reintroduced skinks.

The objective on Ile aux Aigrettes is to recreate an ecosystem with as many components as possible. The forest restoration is well advanced and our current challenge is to eradicate the weeds which regenerate. Our planting aims to provide food for the endemic species introduced to the island or, in the case of extremely rare plants, to ensure that they are protected and preserved.



Ile aux Aigrettes restoration work



## Ile de la Passe

Ile de la Passe is an islet of 2.4 ha, located on the edge of the reef at the entrance to the main pass to Mahébourg harbour. The National Heritage Fund (NHF) of the Ministry of Arts and Culture has responsibility for the management of the islet and in particular the preservation and restoration of historical ruins. Ile de la Passe may warrant the status of UNESCO's World Heritage Site on account of its history, remaining fortifications and scenic beauty.

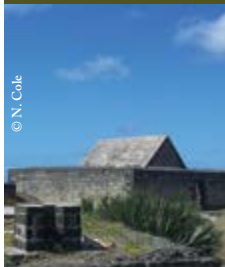
The islet formerly held a lowland dry coastal ecosystem, supporting native/endemic seabirds, land birds, reptiles, invertebrates and native plants. These have been severely reduced due to clearing of the original vegetation, development for strategic military reasons, introduction of predators (now removed) and uncontrolled visitor activities. The surviving native biodiversity, including coastal plants, Bouton's Skinks (*Cryptoblepharus boutonii*), Bojer's Skinks, White-tailed Tropicbirds and Wedge-tailed Shearwaters, need to be protected and enhanced.



Bouton's Skink



Historical fortifications



In an agreement between the National Heritage Fund and MWF, signed in June 2012, our work on Ile de la Passe has been formalized and strengthened. The aim is to better manage the island in order to protect the historical remains and the biodiversity, whilst also promoting responsible tourism.

MWF's involvement has spanned over two decades and includes surveys of the biodiversity, Asian House Shrew eradication, invasive plant control, reptile and seabird monitoring, support to the archaeological team, clearing of litter, education of visitors and tourism operators, input into a field guide, assistance regarding quarantine, and recommendations on islet management.

Whilst the NHF is responsible for the protection of the historical buildings, MWF will work on restoring the fauna and flora. Only a limited amount of planting is possible, supported by a weeding programme. The issues of camping, lighting of fires and littering will have to be addressed, as well as the need for a warden or some form of patrolling of the islet.

Future actions will involve supporting the National Heritage Fund in finalizing the management plan, keeping the island clean, implementing a restoration and monitoring programme for fauna and flora, which may involve seabird translocations, and organizing or supporting education and awareness initiatives.





# Habitat and Island Restoration: Rodrigues

MWF has worked on the restoration of all four nature reserves in Rodrigues, namely Anse Quitor, Grande Montagne, Ile aux Sables and Ile Cocos, for more than two decades. The reserves have different habitats: Anse Quitor is almost at sea level, with coralline substrate and is a relatively dry area; Grande Montagne is considered to be at high altitude (300–350 m) (for Rodrigues) and is relatively wet with a deep rich soil; and Ile Cocos and Ile aux Sables are isolated sandbar islands.

We have run trials in these areas with different native species and planting regimes to establish the most suitable restoration programmes. Many exotic shrub species (unlike native ones) tend to utilize a lot of water and are not suitable for the dry Rodrigues environment. Restoration to replace exotic forest with native planting will help retain water resources and thus benefit the island.

## Mainland Nature Reserves

Forest clearance, introduction of invasive plant and animal species, predators (e.g. rats and cats), exploitation of the island's nature resources, unsustainable agricultural practices and soil erosion have led to the demise of much of the rich biodiversity of Rodrigues. Well over 12 bird species and a host of plants are extinct and several species of seabirds have been extirpated. Part of our programme to protect and conserve the remaining species is the restoration of the Anse Quitor and Grande Montagne nature reserves, along with the support of the local community.

Restoration in both of the mainland nature reserves involves sectioning off chosen areas, thinning of invasive species, planting native seedlings propagated in the nursery, followed by additional weeding and monitoring. This is a long-term process and seedlings of different species continue to be planted in the restored areas to increase diversity. Weeding of invasive species and regular maintenance of restored areas is carried out in both reserves, with the assistance of local individuals and groups. Labourers living in villages surrounding the reserves have been recruited to work on the restoration, showing that conservation can create work for locals. In 2012, during the two-month closure of the octopus fisheries, 57 octopus fishers were trained and worked with us at both reserves. A volunteer appreciation day is held annually in December on International Volunteer Day to thank our volunteers and to encourage them to continue helping MWF protect the endemic biodiversity of Rodrigues. Educational outings for schoolchildren are also organized, so that the local people can learn about their environment and the importance of conservation.

## Anse Quitor Nature Reserve

Over three-quarters of the 35-ha fenced Anse Quitor Nature Reserve have been restored and many endemic plants have been planted there. The reserve is home to very rare endemics, such as bois pasner (*Zanthoxylum paniculatum*), bois goudron (*Antirhea bifurcata*) and bois blanc (*Polycias rodriguesiana*).

The main non-native species weeded from the reserve are pongam/ la coqueluche (*Milletia pinnata*), faux acacia, boule de gomme (*Cordia mixa*) and vieille fille. Local groups such as the Scouts, youth clubs, and secondary school children are involved in this process. Visits to Anse Quitor and educational talks have also been organized with businesses near to the reserve.

Since 2008, 6 ha have been restored with over 64,000 endemic seedlings. Of this number, approximately 37,500 native seedlings were planted in 3 ha during 2011 and 2012. Some of the seedlings were planted under the Air Mauritius *One Take-off, One Tree* initiative. In addition, a poster, sticker and folder on Anse Quitor Nature Reserve were distributed across the island during this time. Future plans include the restoration of an additional hectare, along with continuous weeding in recently restored plots.



Clearance of exotics



Seedlings ready for planting



Planting seedlings





Land clearance

### Grande Montagne Nature Reserve

Grande Montagne is an important habitat for the two surviving endemic birds (the Rodrigues Fody and the Rodrigues Warbler), the Rodrigues Fruit Bat and the population of insects, thus helping to complete the entire ecosystem. With the intense restoration efforts over the past few years, nearly three-quarters of the area of the fenced Grande Montagne Nature Reserve (25.5 ha) have been restored, with work progressing well, due to the high success rate of seedlings planted. Several plants such as café marron, mandrinette (*Hibiscus liliiflorus*) and bois lubine (*Poupartia castanea*) are being successfully conserved here. The reserve is open to the general public and provides an excellent opportunity to observe conservation at work.

The main non-native species removed from this reserve are tecoma (*Tabebuia pallida*), aloès (*Furcraea foetida*), herbe tourterelle (*Wikstroemia indica*), faux acacia and bois d'oiseau à petites feuilles (*Litsea glutinosa*). Local groups such as the Scouts, Atelier de Savoir, Lions Club, youth clubs, and secondary school children have been involved in the weeding process. Since 2008, 10 ha have been restored at Grande Montagne Nature Reserve with over 83,000 endemic seedlings. Of this, approximately 20,000 native seedlings were planted in 2 ha in 2011 and 2012.

The reserve is open to the public and provides us with awareness-raising and educational opportunities. A field guide for Grande Montagne, produced in 2010, continues to be distributed to visitors, and during 2011 and 2012 signboards labelling plants and indicating the path were created and installed. For World Forest Day 2012, the interpretation centre at Grande Montagne was upgraded and new pictures were placed to help visitors identify the plants.

Future plans include the restoration of an additional 3 ha over the next couple of years, weeding in recently restored plots, and the development of educational material and a structured tour for visitors.



Land preparation



Transporting seedlings for planting

Main Donors  
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UNDP - GEF/SGP



Planting





## Ile Cocos and Ile aux Sables

Ile Cocos (15 ha) and Ile aux Sables (8 ha) are important island nature reserves in the lagoon of Rodrigues. Ile Cocos is a key tourist site, whereas Ile aux Sables is a nature reserve with restricted access. Both are also home to coastal vegetation communities, and are under threat from invasive alien plants and animals and the adverse impacts of tourism. With habitat restoration and appropriate management, the populations of seabirds found on the islands should increase, with the potential to become internationally important seabird reserves. Seabirds native to these islets include the Common Noddy, Lesser Noddy (*Anous tenuirostris*), Fairy Tern (*Gygis alba*) and Sooty Tern.



The Mauritian Wildlife Foundation has had a long-term involvement with these islets, although the relationship has only been formalized since 2006. Between 2006 and 2010, we focused our efforts on restoring the native flora of the islets, both of which are home to thousands of seabirds, and in encouraging increasing numbers of Rodriguans to visit Ile Cocos. The programme of work comprised land preparation, plant propagation in the Solitude Native Plant Nursery, and planting of over 35,000 plants of 19 native species, with the help of volunteers from youth and community groups and secondary school children. As part of the ecotourism component on Ile Cocos a new pathway for tourists was created, five educational signboards were placed on the island, and a *Guide de la Faune et de la Flore de l'Ile Cocos* was published. As part of this work Rodrigues staff received training in seabird monitoring techniques.

In 2011 and 2012, MWF conducted four monitoring surveys yearly on the four native seabird species. Through the seabird monitoring, the presence and potential breeding of the Roseate Tern (*Sterna dougallii*) has been observed on Ile aux Sables. Seabird monitoring helps us to learn about the breeding cycle of species and their population patterns.

Following the attendance of Rodriguan staff at an invasive species management course, funding was obtained to start a project entitled *Sensitisation about Invasive Species with regards to Ile Cocos*. Two main workshops were held with stakeholders involved in Ile Cocos: Forestry Services, Discovery Rodrigues, boat skippers and tour operators, government and environment institutions, and guesthouses sending visitors to the island. The workshops determined the participants' knowledge about invasive species and educated them on those found in Rodrigues, specifically species relevant to Ile Cocos. Methods of preventing invasive species from arriving on the island were discussed, and a specially designed sticker and brochure were distributed. In 2013, we aim to develop an educational signboard to be placed at the main departure point for Ile Cocos which will help with identifying the particular invasive alien species and in preventing their arrival on Ile Cocos.

Main  
Donors  
2011/12

Forestry Service  
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# Gerald Durrell Endemic Wildlife Sanctuary (GDEWS)



Feeding captive Echo Parakeets



Hand rearing a rescued bat



Feeding a Pink Pigeon chick



Echo Parakeet aviary

Gerald Durrell Endemic Wildlife Sanctuary, or Black River Aviaries as it is commonly referred to, was established in 1976 and is run jointly by MWF and the National Parks and Conservation Service. Originally, the project was concerned with the captive breeding of the Mauritius Kestrel and the Pink Pigeon for release into the wild, and later with a similar project for the Echo Parakeet. The facilities were upgraded in 2004 to strengthen the recovery programmes for our endemic birds and in the last decade the focus has changed to the artificial incubation of wild-harvested eggs and the hand rearing of the Mauritius Fody and Mauritius Olive White-eye.

The Black River Aviaries has many roles, including studies on the fruit bats, the rehabilitation of sick or injured native birds and bats, training staff in animal handling and general vet practices, and passerine and reptile work in support of projects. This centre is also used as a quarantine station for animals, such as the reptiles translocated to nearby islets, or as a holding facility in the case of fruit bats, prior to being sent overseas.

In April 2010, a project to boost the Pink Pigeon sub-populations and to move birds around between sites started. Feathered nestlings (aged 17–19 days) are harvested from Ile aux Aigrettes where many would otherwise die from the parasitic disease trichomoniasis. These are taken to GDEWS, where they are hand reared until weaned and then released. So far, 21 birds have been released at the Lower Black River Gorges and a single bird at the new Pétrin release site.

In support of our habitat restoration projects, we are raising 205 baby Aldabra Giant Tortoises. Tortoises hatched on Ile aux Aigrettes have to be removed from the island until they are older and larger, to avoid the risk of being poached and kept as pets or sold. Later they will be released on Round Island, Ile aux Aigrettes or other suitable islands. A total of 220 Aldabra Giant Tortoises and 4 Radiated Tortoises have been translocated from GDEWS to Round Island since 2010.

Future work will support the reptile and seabird projects, continue with hand rearing of Pink Pigeons and include some hand rearing of the Mauritius Kestrel for a proposed new release site. When there is a need for captive studies GDEWS provides the facilities for us to answer questions needed for managing our endangered species. In 2013, a study on the Mauritius Fruit Bat food preferences is planned, comparing native and commercial fruits in a free-choice situation to see which are favoured.



Caring for an injured tropicbird



Head starting Aldabra Giant Tortoise juveniles

## Exhibition on Extinct Species – *Le dernier gong du dugong*



As part of an exhibition organized by the Blue Penny Museum (November 2011 to January 2012), MWF loaned some of the life-size bronzes of extinct animals, usually on view on Ile aux Aigrettes, to enable them to be seen by a wider public. These bronzes represent some of the fauna of the Mascarenes, which became extinct due to man's interventions.

## MWF Admitted as a Member of the IUCN



In November 2011, MWF was admitted as a member of the International Union for the Conservation of Nature (IUCN) allowing us to benefit from exchanges with a large pool of scientists and managers, and access the latest thinking and techniques in conservation. The IUCN brings together states, government agencies and a diverse range of non-governmental organizations in a unique world partnership, with members in some 160 countries. MWF scientists are members of specialist groups relevant to our work in Mauritius and Dr Vikash Tatayah now co-chairs the Mascarene Islands Plant Specialist Group.

## Rodrigues Honorary Freeman Award to MWF



In 2012, MWF received the award of Honorary Freeman, given by the Rodrigues Regional Assembly, to recognize our long-term contribution to the environmental work on the island.

## BirdLife International Affiliate for Mauritius



In 2012, MWF applied to BirdLife International to join the acclaimed organization. Their aims are to conserve birds, their habitats and global biodiversity, and work with people towards the sustainability of natural resources. The assessors visited in July 2012 and we were proud to receive our official appointment in 2013.

## Closure of Octopus Fishing in Rodrigues



Monitoring of the octopus fishing industry in Rodrigues has demonstrated the need for periodic closure, to allow the stock of octopus in the lagoon to breed and grow. This took place between 13 August and 12 October 2012, affecting approximately 1,400 registered octopus fishers. MWF supported the initiative by the Rodrigues Regional Assembly by recruiting 57 fishers to take part in our conservation work at Grande Montagne and Anse Quitor nature reserves and 13 fishers were based at the Solitude Native Plant Nursery.

## Introduction of Exotic Species into Mauritius



A major threat to our native fauna and flora continues to be the introduction of alien species. MWF has repeatedly voiced concern that the issue must be addressed on a national basis, as it threatens our agriculture, tourism and health, in addition to having huge conservation implications. We issued a press release about this subject for World Biodiversity Day 2012 and welcome the increasing exposure in the press since then, including the coverage of high profile incidents such as the Golden Apple Snail (*Pomacea bridgesi*) damage to the water lilies at Pamplemousses Botanical Gardens, a major tourism attraction. The snail also causes damage to agricultural crops (e.g. taro and watercress) and to native aquatic plants. MWF opposes the importation of wild-caught and non-domesticated animals for the pet trade.

## Spreading the Word



The redesign of the website was completed in 2011 and went online in December 2011, providing better access to information about MWF and our work ([www.mauritian-wildlife.org](http://www.mauritian-wildlife.org)). To improve our exposure and communication, we now post regular news and events articles on the website and also have a Facebook page for increased interaction with our supporters.





## Education and Awareness

The Mauritian Wildlife Foundation is committed to education and raising awareness as core components of the conservation of biodiversity. In Mauritius, we have always taken the opportunity to promote our work, and the visitor programme on Ile aux Aigrettes enables us to provide Mauritians and tourists with the chance to experience conservation. We also visit schools and other institutions on request, to talk about environmental and conservation issues, participate in exhibitions, give interviews to the

media and are collaborating with education authorities in Mauritius to make conservation information and resources available to science teachers. Most of our education and awareness activities in Mauritius are now sponsored under the Corporate Social Responsibility (CSR) initiative (see page 36). In Rodrigues, we have a well-established and successful education programme, working closely with all primary and secondary schools as well as local communities, involving them directly with our conservation work.

**World Biodiversity Day** (22 May) and **World Environment Day** (5 June) provide key awareness-raising opportunities:

A poster was prepared and circulated in the Mauritian *L'Express* newspaper for World Biodiversity Day 2011.



A number of plant donations to celebrate World Environment Day 2011 were made to the Commission for Environment and two local schools. MWF Rodrigues also took part in an exhibition organized with the Commission for Environment on the theme of *Nature at Your Service*.



MWF Rodrigues participated in the World Environment Day activities 2012 by assisting with the display entitled *Vacoas as an Alternative to Plastic*.



In Rodrigues, Biodiversity Day 2011 was marked with the planting of some rare plants, including mandrinette and café marron, at Grande Montagne Nature Reserve.



In 2012, both world days were celebrated by a joint activity organized by MWF with the Mauritius Girl Guides Association, involving over 100 Bluebirds, Guides and Rangers. The theme was *Environmental Issues, Species Conservation and Protection*, and involved two different events: a presentation and discussion; followed by a sponsored nature walk in Black River Gorges National Park.



For World Biodiversity Day 2012, an official ceremony was held at Mont Plaisir Cultural Centre to celebrate and broaden public awareness on the value of the endemic biodiversity in Rodrigues, hosted jointly by the Mauritian Wildlife Foundation, Rodrigues Regional Assembly and Shoals Rodrigues. As part of the proceedings, MWF Rodrigues planted 50 café marron plants that were propagated in the Solitude nursery with the help of Kew Gardens.







## Learning with Nature Programme

One of our missions is 'To share the joys and benefits of native wilderness and wildlife with the Mauritian people', and the restored habitat of Ile aux Aigrettes enables us to do that. In addition to the ecotours (see page 29), we also conduct our Learning with Nature educational programme, which was formulated in 2009 in collaboration with Chester Zoo (UK). It is specifically targeted at Form 2 students, both to introduce them to the conservation work being carried out in Mauritius and to support curriculum subjects. Additionally, the programme is a valuable educational and awareness-raising tool for children of other ages who are also encouraged to visit the island.



In January, we prepare a Learning with Nature brochure for distribution to all primary and secondary schools in Mauritius, inviting them to participate in the programme. Although it is designed for Forms 1–2 (ages 13–15), the rangers adapt the programme for younger or older students. We cater for up to 60 children at a time, taken round the island in groups of 15. The visits include *Le Sentier du Dodo* nature trail (1.5 km in length), along which the children learn about the geography, history and geology of the island and can experience hands-on activities, exploring topics such as habitat, endemism, food chains and extinction. It is extremely relevant to the students' day-to-day lives as well as to their school curriculum and was awarded Best Education Project at the British and Irish Association of Zoos and Aquarias awards for 2009.



During the 2011/12 period, 7,612 students visited Ile aux Aigrettes on the Learning with Nature programme. Sponsorship under the Corporate Social Responsibility scheme is available for schools where pupils can't afford to contribute to the cost of the tour. On tours under this scheme, the children are also given an education pack and a snack afterwards.

The new Ile aux Aigrettes Visitors' Centre has enhanced many aspects of our educational and awareness-raising work. The construction of the booking desk and education centre on the mainland, close to the embarkation point for Ile aux Aigrettes, was funded by a grant from the Japanese Embassy in 2008. This site is not only ideally situated for visitors to the island but also is on the direct coastal route from Blue Bay to Mahébourg, enabling passersby to call in and learn more about our work. The facilities are now operational, following the official opening in March 2011, taking bookings for island tours, giving out information and receiving visitors.





## Ile aux Aigrettes Ecotours

Since 1985, MWF has managed this islet as a restoration project, conserving native plants and reintroducing the native fauna to recreate a lost ecosystem, and to give us a glimpse of what pristine Mauritius may have looked like. Wishing to share the island with others, we adopted an objective to 'Promote ecotourism, as a means to raise public awareness, generate income and employment and to contribute towards the sustainable development of Mauritius and Rodrigues', and in 1998 Ile aux Aigrettes was opened to the public for guided tours. The main aims of the project are to raise awareness about our conservation work and to help finance the restoration. We also try to show that biodiversity conservation need not be an exclusion activity but can, and should, lead to employment and educational and recreational opportunities for the improvement of local communities, through responsible and sustainable tourism.



The restored habitat of Ile aux Aigrettes provides a unique educational experience, enabling members of the public first-hand experience of our conservation work and hopefully encouraging their future support for our projects. Four different types of pre-bookable guided tours are available: Learning with Nature tours for schoolchildren (see page 28), VIP tours with extra time allocated for bird-watching, photography or other requirements, tours for groups booked through local tour operators, and our regular tours for members of the public booking direct.



Information posters at the last stopping point on the ecotour

The visitor is greeted on the mainland at the purpose-built combined education centre, visitor centre and booking office, opposite Ile aux Aigrettes, at Pointe Jérôme. The tour commences with a five-minute boat journey across the lagoon to the island. All tours are guided by our rangers, who inform visitors about various species of rare plants on the island such as bois de bœuf (*Polyscias maraisiana*) and vacoas and their importance in the ecosystem. Visitors can also view the native fauna including the Ornate Day Gecko (*Phelsuma ornata*), Pink Pigeon, Mauritius Olive White-eye, Mauritius Fody, Telfair's Skink, Guenther's Gecko and they can meet our captive Mauritius Fruit Bats. The Aldabra Giant Tortoise can be seen roaming free on the island, filling the role in the ecosystem of the now extinct giant Mauritian tortoise (see page 16).

The rangers come from around Mahébourg and will share with visitors their knowledge of the area and the history of the island. To avoid damage to the vegetation, and to reduce the impact on the conservation work, visitors follow a trail giving access to the main sites of interest.

The threat of extinction facing many species of plants and animals is highlighted by the presence along the trail of four life-size bronzes of species of fauna which were once abundant on either Mauritius or Rodrigues and are now extinct: the Dodo, Commerson's Owl (*Mascarenotus sauzieri*), the Giant Skink (*Leiopisma mauritiana*) and the Rodrigues Giant Tortoise (*Cylindraspis vosmaeri*). Additional bronzes of extinct species are on view in the small museum on the island.



Giant Skink bronze



Mainland visitors' centre



Ornate Day Gecko





## Rodrigues Environmental Education Project (REEP)

Environmental education programmes aim to improve ecological awareness and understanding, and encourage better appreciation and conservation of our natural resources. To further our belief that conservation goes hand-in-hand with education in order to be successful, MWF employs a full-time environmental educator on Rodrigues.



2011 pre-primary school activities

The Rodrigues Environmental Education Project started in 1998, aimed at the primary and secondary schools and local communities. MWF liaises with the Commission for Education, part of Rodrigues Regional Assembly, and has been giving talks in primary schools since 2000 and secondary schools since 1998. The educator visits all of the primary schools (15) and secondary schools (6) on the island, and talks on topics relating to conservation such as water, air pollution, plants and animals in the environment, and endemic plants. These are integrated with the science, history and geography elements of the curriculum. In 2011 and 2012, REEP classroom talks reached 386 and 409 students. Part of the project involves getting the children to understand the environmental challenges that the world faces and how they, as individuals, can make a difference. Field outings are an important component and cover the nursery, nature reserves, water sources and treatment plants. During 2011 and 2012, 974 and 520 students visited either Grande Montagne or Anse Quitor to experience the restored habitat of these important nature reserves and to see conservation in action.

School community projects are an effective way to involve both children and teachers in environmental issues, and include the planting of endemic shrubs in school gardens or playground areas. We provide the expertise and then the teachers, parents and children take on the project on a day-to-day basis. Endemic gardens have been created in all primary and secondary schools on Rodrigues.

In the wider community, MWF's environmental educator organizes volunteer days, village talks, donations of plants to village groups, newspaper articles and radio talks. In 2011 and 2012, 740 and 747 volunteer man-days helped with conservation activities in Rodrigues, and we reached 119 and 802 villagers in 2011 and 2012 through educational talks and visits. Some 1,631 native plants were donated in 2011 and 3,454 in 2012, to schools, village groups and community groups with the aim of educating the public about endemic plants and replanting them across the island.

Events to celebrate days related to conservation issues are also arranged, such as our annual celebrations for World Environment Day and International Volunteer Day. During 2011 and 2012, educational material such as a jigsaw puzzle of a bat, 2012 desk calendar showing endemic Rodrigues flowers, backpack, and an invasive alien species sticker and brochure were created and distributed to schools and in the villages. Activities were also organized for International Biodiversity Day and World Forest Day in both 2011 and 2012. The fifteenth anniversary of MWF in Rodrigues was celebrated in 2011, with a church service followed by an official ceremony and a photo exhibition showing the different aspects of our work.

Future plans include the continuation of educational talks and field outings with the schoolchildren, creation of new educational material, organization of volunteer days, village talks and event days, and giving support to other MWF conservation projects.

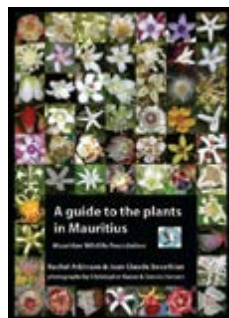
Main Donors  
2011/12

Fondation GML Joseph Lagesse  
Mauritius Development Investment Trust Co Ltd  
Scott Smile Foundation  
Zoological Society of Philadelphia



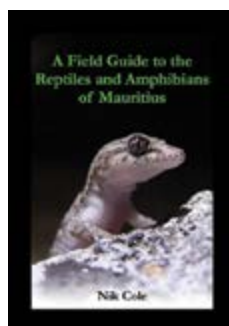
Plant donations for village planting

## Our Books



- Atkinson, R. and Sevathian, J. C. (2005)  
 ◀ *A Guide to the Plants in Mauritius.*  
 Mauritius: MWF.

Mauritian Wildlife Foundation (2005)  
 ▶ *The Native Plants & Animals of Mauritius.*  
 Mauritius: MWF.



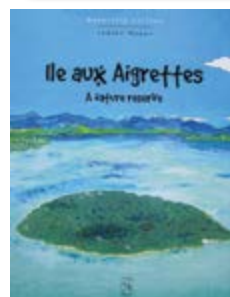
- ◀ Cole, Nik (2009)  
 ◀ *A Field Guide to the Reptiles and Amphibians of Mauritius.*  
 Mauritius: MWF.

Mauritian Wildlife Foundation (2009)  
 ▶ *Guide de la Faune et de la Flore de l'Île Cocos.*  
 Mauritius: MWF.

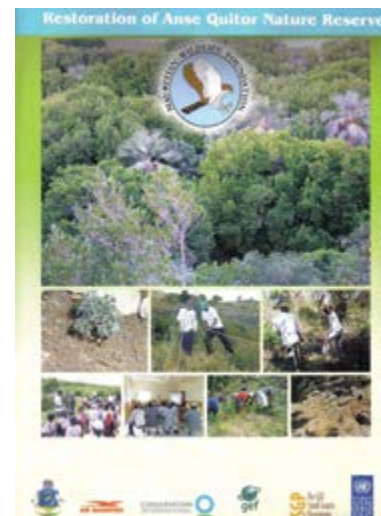


- ◀ Carter, M. and Tatayah, V. (2010)  
 ◀ *Green Conquest: Naturalists and 1810.*  
 Mauritius: MWF.

MWF/Editions Vizavi (2010)  
 ▶ *Ile aux Aigrettes: A Nature Reserve.*  
 Mauritius: Editions Vizavi.  
 (Also available in French)



## Educational Materials for Rodrigues



A variety of educational and awareness-raising materials have been created by MWF Rodrigues, some of which are shown here.

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# Data Management and Scientific Research

An important part of our work is the collection of data for analysis to guide and inform management decisions. Data are collected by the staff working in the field and recorded in electronic databases. MWF staff analyse these data to derive information and identify trends. For more complex questions, we work with universities (see *Our Partners on page 40*) to obtain self-funded BSc, MSc and PhD students to carry out research in areas central to our mission. The applied (rather than pure theoretical) nature of the research studies has been a pillar of our conservation programmes. We are also looking into ways of improving and standardizing our databases with the support of our university partners.

## Research Studies Completed in 2011/2012

**Laurent Ayady** University of Mauritius, Mauritius (BSc) *Study of insects, pollinators and soil biodiversity of the Ravenala madagascariensis.*

**Richard Burger** Cardiff University, UK (MSc) *Using molecular, DNA-based techniques to study dietary competition between Telfair's Skink (Leiolopisma telfairii) and the Indian Musk Shrew (Suncus murinus) in Mauritius.*

**Samantha Cartwright** University of Reading, UK (PhD) *Agriculture, natal environment and the life histories of Mauritius Kestrels (Falco punctatus).*

**Ramona Kaltenmeier DICE** University of Kent, UK (MSc) *A poisoned chalice: does supplementary feeding promote disease transmission?*

**Grace Mansfield** University of East Anglia, UK (MSc) *The use of supplementary feeding by the endangered Echo parakeet (Psittacula eques) within a minimal management programme.*

**Claire Raisin** DICE, University of Kent, UK (PhD) *Population genetics, disease and reproductive fitness in the endemic Echo parakeet (Psittacula eques) and the introduced Ringneck parakeet (P. krameri) on Mauritius.*

**Sarah Scott** University of East Anglia, UK (MSc) *Restoring the native flora of Round Island: which factors influence early survivorship of planted hardwoods?*

**Marvind Tapsee** University of Mauritius, Mauritius (BSc) *Distribution of ravenala and its ecosystem interaction with the flora in the forest of Mare-Longue and Saint-Julien.*

**Vikash Tatayah** University of Mauritius, Mauritius (PhD) *The breeding biology of the Round Island Petrel (Pterodroma spp.) and factors determining breeding success.*

**Alain Tchouamo** Institut de la Francophonie pour l'Entrepreneuriat (IFE), Mauritius (Master) *Projet de création d'une entreprise de services environnementaux et de semences forestières au Cameroun.*

**Simon Tollington** DICE, University of Kent, UK (PhD) *The effects of inbreeding on immune function and interactions with disease in endangered Mauritius bird populations.*

**Andrew Wolfenden** Manchester Metropolitan University, UK (MSc) *Who's coo? Investigating interspecific vocal competition between the pink pigeon (Nesoenas mayeri) and the Madagascan turtle dove (Nesoenas picturata).*

## Research Studies ongoing in 2012

**Mohammed Albeshr** University of East Anglia, UK (PhD) *Long-term analysis of diseases and genetics in endangered Mauritius Pink Pigeon.*

**Kathryn Booth-Jones** University of Reading, UK (PhD) *Geo-locator studies on the Round Island Petrel species complex.*

**Sam Bremner Harrison** Nottingham Trent University, UK (Post-doctoral) *Population and individual behavioural adaptation within source and translocated Telfair's skinks (Leiolopisma telfairii) populations on the offshore islands of Mauritius.*

**Steeves Buckland** University of Bristol, UK (PhD) *Status, ecology and conservation of endemic day geckos in Mauritius.*

**Lianne Concannon** University of Reading, UK (PhD) *Managing threatened species: Understanding the factors limiting the recovery of the endangered Pink Pigeon (Nesoenas mayeri).*

**Richard Dale** University of Reading, UK (PhD) *Population biology of the Mauritius Kestrel (Falco punctatus) in the Black River Gorges National Park.*

**Mathew Davies** Cardiff University, UK (BSc) *Isolation and characterisation of microsatellite markers in Telfair's skink (Leiolopisma telfairii) Genome.*

**Elizabeth Green** Cardiff University, UK (BSc) *Microsatellite analysis to determine the genetic variability of a translocated population of Gongylomorphus fontenayi ssp. following eradication from Flat Island.*

**Jean-Baptiste Jolicoeur** University of Mauritius (BSc) *An assessment of the planting/cropping systems of native plants in Mauritian/Rodriguan forests.*

**Kritish Ramlugun** University of Mauritius (BSc) *An assessment of fruit damage caused by the Mauritian fruit bat Pteropus niger in a litchi Litchi chinensis orchard.*

**Suzanna Stanbury** Cardiff University, UK (BSc) *A population genetic assessment of an invasive event; the Indian musk shrew (Suncus murinus) on Flat Island, Mauritius.*

**Faye Willman** DICE, University of Kent, UK (MRes) *Metapopulation genetics in the Mauritius Pink Pigeon (Nesoenas mayeri): Developing a long-term genetic management strategy to support conservation.*

## Scientific Papers

The MWF staff, university researchers and students, and other collaborators write and contribute to a large number of scientific papers and reports based on our conservation work in Mauritius and Rodrigues. A selection of these can be seen on our website at [www.mauritian-wildlife.org](http://www.mauritian-wildlife.org) (under **Publications**).

# Staff Development and National Capacity Building

The Mauritian Wildlife Foundation has been successful at developing many innovative conservation techniques and we offer a wide variety of experiences and opportunities for conservationists starting their career. We have always attracted overseas volunteers keen to acquire practical experience. The experiences they gain in Mauritius stand them in good stead for further employment. We have also built up a core team of Mauritian conservationists, which provides us with continuity. To extend and share the knowledge that we acquire, we organize and participate in a variety of training and educational opportunities. Where possible we encourage staff exchanges with other conservation organizations.

## Courses, Workshops and Conferences

### **UNESCO-CEPHYR International Workshop (April 2011)**

This workshop entitled *Bioprocessing, Policy and Practice: Conservation and use of Medicinal plants of the Small Island Developing States (SIDS) of the Indian Ocean and Madagascar*, was attended by two MWF staff, presenting a talk and a poster.

### **Commission de l'Océan Indien Workshop (June 2011)**

Two members of staff attended this workshop on how to prepare and submit proposals and specifically those funded by the European Union.

### **Maurice Ile Durable (June to July 2011)**

Following the publication of a Green Paper in April 2011, MWF participated in the six consultation work groups set up in Mauritius and the consultation in Rodrigues.

### **Nairobi Convention Project Conception Workshop re Protection of Birds (August 2011)**

Dr Vikash Tatayah was invited by BirdLife International to attend this regional African meeting, held in Dar es Salaam, Tanzania.

### **Introduction to MWF (September 2011)**

This session introduces the organization to new staff and volunteers, covering our history, administrative procedures and gives background to our non-conservation project activities.

### **MWF Induction Course (September to November 2011)**

Participants from the National Parks and Conservation Service and Forestry Services attended.

### **Human Relations at Work (November 2011)**

This course for all MWF staff in Rodrigues followed on from one held in 2008. Subjects covered were change, decision making, problem solving and motivation.

### **Invasive Alien Species Workshop (January 2012)**

Andrea Waterstone, Rodrigues Administrator, was invited to this workshop held in Mayotte, Comores Islands, which was attended by over 50 participants from 15 countries/islands/institutions.

### **Grant Writing and Management for Conservation Professionals Course (January to February 2012)**

Dr Nicolas Zuel attended the course offered by the Smithsonian Conservation Biology Institute held in Gaborone, Botswana.

### **Maurice Ile Durable (MID) (April 2012)**

A workshop was held for the consultants Mott MacDonald Ltd to give an update on the draft MID policy and 10-year strategy, and to obtain feedback from stakeholders.

### **Team Building (May 2012)**

The Ecotour Team participated in a team building day at Domaine de Wolmar.

### **Maurice Ile Durable (May 2012)**

A second workshop was attended by two members of MWF staff.

### **Conservation in Action (May 2012)**

Rodrigues hosted a two-day training course on conservation matters for MWF staff and collaborating institutions.

### **Parks, Biodiversity and Ecotourism Management Program (May to June 2012)**

Danny Thisbé, Ecotour Manager, attended this course in the United States through generous sponsorship by the US Embassy in Mauritius.

### **Career Convention (July 2012)**

MWF was invited to participate in the exhibition and deliver a talk on 'Green Jobs' at the convention organized by the Bureau de l'Education Catholique.

### **Learning with Nature Guiding Training (July 2012)**

Sarah Bazley of Chester Zoo assessed the Learning with Nature programme on Ile aux Aigrettes and conducted practical training for rangers and selected staff members.

### **Effective Supervision Course (August 2012)**

This in-house, three-day training course was attended by 15 of our staff.

### **Workshop on Heritage and Sustainable Development (August 2012)**

The Department of History and Political Science, University of Mauritius, organized this series of public lectures. Dr Vikash Tatayah participated in a half-day workshop and delivered a lecture.

### **IUCN World Conservation Congress 2012 (September 2012)**

Dr Vikash Tatayah was amongst the 8,000 attendees at this congress, held in Jeju, Republic of Korea. It provided an invaluable forum for the exchange and sharing of information and advice.

### **MWF Induction Course (September to November 2012)**

Participants this year came from the Forestry Service, the Ministry of Environment and the National Heritage Fund.

### **Ile Cocos Invasive Species Workshops (August, October 2011 & November 2012)**

MWF held a series of workshops with the stakeholders of Ile Cocos on ways to protect the island from introduced species which could have a destructive impact on the native biodiversity.

### **Durrell Endangered Species Management Graduate Certificate (February to May 2012)**

Dany Vencatasamy, Conservation Biologist on the Reptile Conservation Project, attended a three-month training course in conservation held at the Durrell Conservation Academy, Jersey.





## Lectures from Staff and Visitors

- **Julie Cole**, Seabird Coordinator, on the Seabird Translocation Project.
- **Nadine Lamarque**, Animal Keeper at GDEWS, on the conservation of the Madagascar Pochard following her secondment to the project for three months.
- **Dr Go Ogura**, Associate Professor, Faculty of Agriculture, University of the Ryukyus, on the control and trapping of mongooses in Japan.
- **Charlotte Goble**, from Durrell Wildlife Conservation Trust, on captive breeding endemic Mauritian reptiles in Jersey.
- **Jean Claude Sevathian**, Rare Plant Conservation Officer, gave an overview of rare plant work 2010/11.
- **Ashok Khadun**, Islets Restoration Manager, on the control and management of *Chromolaena odorata* on Round Island.
- **Dr Sylvain Hugel**, from the Centre National de Recherche Scientifique, Université de Strasbourg, France, on the ecological role of Orthopterans (crickets, grasshoppers).
- **Thomas Juhasz** (former MSc student) on experience in international conservation.
- **Cédric Soutif**, from Université de la Réunion, on phylogeny of the genus *Polyscias* in the Mascarenes.
- **Nick Phillips**, Biodiversity Policy Officer of the Royal Society for the Protection of Birds (RSPB), UK, presenting his role and the work of the RSPB.
- **Simon James**, Senior Keeper, Bird Department, Durrell Wildlife Conservation Trust, on the recovery programme for the Madagascar Pochard.
- **John Hartley**, retired Director of Durrell Wildlife Conservation Trust, on highlights of the work in Mauritius and Rodrigues since 1976.
- **Prof. Ken Norris**, Director of the Centre for Agri-Environmental Research of Reading University, UK, and Dr Malcolm Nicoll, Senior Lecturer and Researcher at Reading University, UK, on the findings of the Mauritius Kestrel research studies and Round Island Petrel geo-locator tracking study.
- **Denis Li**, Kestrel Coordinator, on the achievements of MWF's Mauritius Kestrel Project.
- **Dr Nik Cole**, Reptile Conservation Manager, on the Mauritius Reptile Conservation Project.
- **Dr John Ewen**, Research Fellow, Institute of Zoology, UK, on conservation management in New Zealand using the endangered Hihi (Stitchbird) as a case study.
- **Dr Roland Digby**, Conservation Breeding Officer, Wildfowl and Wetlands Trust, on two projects he has been closely involved with: the Spoon-billed Sandpiper and the Madagascar Pochard.
- A discussion on the management practices and future directions for MWF's bird conservation programmes led by **Dr Jim Groombridge**, Reader in Biodiversity Conservation, University of Kent, UK, Dr John Ewen, Research Fellow, Institute of Zoology, UK, and Prof. Carl Jones, Scientific Director.
- **Martine Goder**, Reptile Project Coordinator, on her year spent on her MPhil on conservation leadership.
- **Danny Thisbé**, Ecotour Manager, presented his attendance at the Parks, Biodiversity and Ecotourism Management Program in the USA.

## Professional Visits

Every year MWF receives visits from professionals representing a wide range of organizations concerned with conservation. Visits vary from a day spent at one of our sites to several months working with our field teams for a more in-depth experience. We are pleased to have the opportunity to learn from these visitors and many of them deliver a lecture to our staff (see *Lectures from Staff and Visitors*) or participate in discussions during their stay. Among those who visited, but are not mentioned in other contexts in this report, were Dr Peter Wyse-Jackson of Missouri Botanical Gardens, USA; Dr Peter Harrison, author and seabird scientist; Dr Jonathan Rossouw, bird enthusiast; Andre Hoffman of WWF; Assoc. Prof. Peter Ryan, President of BirdLife South Africa; Dr Bill Waldman and Dr Olivier Langrand of Island Conservation.



Dr Peter Harrison and Dr Jonathan Rossouw on Round Island

## Endangered Species Recovery Course

In 2011, MWF entered into discussions with the International Training Centre, Durrell (now Durrell Conservation Academy) and Durrell Institute of Conservation and Ecology (University of Kent), to develop a training course available to both international and Mauritian students. This will combine conservation theory and classroom training with practical, hands-on experience in the field, working with MWF conservation biologists to put theory into practice. The course will involve many of our staff who will teach on it, but will also enable our staff and volunteers to have access to external expertise and lectures and to strengthen their skills in the field. Access to the course will be given to other organizations in Mauritius involved in conservation (government and private sector) to develop their own staff. A pilot for the course is planned for May 2013, ideally with accreditation following in 2014.

## National Conservation Issues

As part of our role as a conservation organization, MWF provides advice and expertise to national committees, boards and government departments, regarding conservation-related issues. This ensures that we can contribute actively to discussions on projects or policies that may impact on the local flora and fauna.

Some of the committees that we are involved with are: the Wildlife and National Parks Advisory Council, which manages the Black River Gorges National Park; the Nature Reserves Board, which controls the nature reserves of Mauritius and the islet reserves of Rodrigues; the Ramsar Committee, which works to conserve wetlands and protect them from development; the National Invasive Alien Species Committee, which advises on issues related to invasive species; and the Convention for the International Trade in Endangered Species (CITES) Committee, which recommends import/export of CITES-listed species.

We are also working with, and providing advice to, a range of national (and some international) conservation and development organizations and projects:

- Maurice Ile Durable – MWF staff were present for discussions on all five commissions (Energy, Environment, Education, Employment and Equity) and at major meetings to which we were invited.
- The lease of Flat Island to a private company – the company has now been wound-up but there is a court case related to sub-leasing of the island, and MWF continues to ensure that environmental and conservation standards are upheld on the island through our involvement with the Nature Reserves Board, although the impending court case has impeded conservation efforts.
- Protected Areas Network is a United Nations Development Programme and Government of Mauritius project, in cooperation with MWF and the private sector, aiming to establish a network of public and private lands with conservation value, so that biodiversity can be better protected.
- Encouraging the development of a National Invasive Alien Species Strategy and Action Plan to overcome the risk of alien species introduction, manage the effects of established/establishing species and promote awareness of the risk of alien species introductions. Although the strategy has been completed, work on the action plan is pending.
- A UNDP-GEF, Food and Agriculture Organization, and Government of Mauritius project on Capacity Building for Sustainable Land Management in Mauritius and Rodrigues.
- The Mauritius Environmental Outlook Report, including chapters on inland biodiversity, islets, Agalega and St Brandon.
- Piloting integrated processes and approaches to facilitate national reporting to the three Rio Conventions on biodiversity, climate change and desertification.
- The Africa Adaptation Programme aiming to integrate climate change adaptation policies into national development plans and policy in Africa, including Mauritius.

- Conservatoire Botanique National de Mascarin, Parc National de La Réunion and Société d'Etudes Ornithologiques de La Réunion on conservation matters.
- Mauritius Research Council – National Research Foresight Exercise – to advise about research projects for Mauritius in all fields.
- Mascarene Islands Plant Specialist Group – MWF was approached to co-chair this Specialist Group of the IUCN from 2013 to 2016, inclusive, which aims to improve the conservation of endemic plants.

## Habitat Restoration Projects

We continue to be involved in restoration projects in partnership with government and private local partners wanting to restore native plants on their land. These projects usually progress from an initial survey to establish which species are growing there; a nursery is set up; seeds of native plants may be collected for propagation; workers are trained to identify native plants, to weed specific exotic plant species, and in different techniques to control exotic species; and native plants grown in the nursery are planted out.

Projects include:

### Vallée de l'Est

The restoration of this forest started in 2004 with the objective of controlling exotic plant species and propagating native species in the nursery for planting. Areas of good quality native forest were selected for the initial conservation work and once the exotics had been weeded out it was possible to see which native plants remained. This project is now well established and only requires our presence once or twice a month to monitor progress and provide advice.

### Ferney Valley

The project in Ferney Valley started in August 2006 after 175 ha of forest were set aside as a conservation area. The forest has a walking track for visitors, on which MWF advised, and restoration work has started. There are plans to reintroduce endemic birds such as the Pink Pigeon, and a field station has been constructed.

### Ebony Forest Reserve, Chamarel

Restoration work started here in January 2007 and a native nursery has been established to grow the required plants. A plant survey was conducted and regular monitoring of rare native species is carried out. Once restoration is well advanced, the public will be able to visit the restored forest and the education centre to learn about Mauritian biodiversity and the problems it still faces.

### Bel Ombre, Case Noyale and Chamarel

MWF is working with the Compagnie Sucrière de Bel Ombre for the restoration, conservation and management of their forests at Bel Ombre, Case Noyale and Chamarel. The project began in 2009, aiming to preserve the forests by weeding out introduced plants, planting native species and ultimately creating walking trails for ecotourism purposes.

### Mondrain

Since 1984, MWF has been closely involved with restoration work at Mondrain Nature Reserve, one of the last native forests on the Vacoas Ridge, owned by the Médine Sugar Estate. MWF has been responsible for supervising weeding of exotics and replanting of rare and endangered native species, as well as checking on the fencing required to deter predators. Mondrain is not a designated nature reserve, although it has received private and NGO protection and restoration, and ranks as one of the best managed reserves in Mauritius.





## Fundraising

Fundraising is a core activity for MWF, without which our conservation projects could not be maintained and developed.

### Corporate Social Responsibility (CSR)

Introduced in Mauritius in 2009, and subsequently amended, the Corporate Social Responsibility policy requires registered companies to use 2% of their book profit towards funding programmes that contribute to the social and environmental development of the country, or pay it as an additional corporate tax. As of January 2012, registered companies have been required to spend 50% of their CSR funds on five priority areas. Unfortunately, environmental conservation is not included and we are urging the authorities to rectify this.



Building nest boxes as part of a CSR activity

The funding from the Corporate Social Responsibility policy is an important source of our revenue. Since its introduction, a large number of local companies, foundations and corporate trusts have supported our projects by this method. Some have gone beyond compliance with the framework to actively pursue positive impacts on local communities and to offset their environmental footprint. Nearly 50% of MWF's annual funding comes from CSR donations.

### Participative and In-kind Support

Many companies, both funders and non-funders, have encouraged the participation of their employees in various activities with MWF. Help that we have received includes weeding of invasive plants on Ile aux Aigrettes, removal of litter on Ile de la Passe, assistance in our nursery, as well as involvement in our education and awareness activities. Some companies also support MWF through in-kind donations of materials, equipment or services.

### Individual Donations and Volunteering

Individuals deeply concerned with the protection of the environment, whether they are from Mauritius or overseas, have also expressed their support through cash donations or by offering their professional services to our organization. This enables MWF to benefit from valuable human resources at no cost, giving access to expertise otherwise unaffordable.

### Non-CSR Activities

In May 2012, we organized our first national fundraising campaign called *Zis Enn SMS*. This campaign encouraged Mauritians to make a small donation towards MWF's conservation work via their mobile phone. The campaign was developed with the collaboration and sponsorship of mobile phone operators, the Information & Communication Technology Authority and the Mauritius Police Force. Although the response was relatively low, it enabled us to gain a wider exposure and interaction with the Mauritian public. MWF has also partnered with two companies organizing sporting events, namely Dodo Travel & Tours (the Dodo Trail 2011 and 2012), and La Trobe Ltd (VTT Rando Raid in September 2012).

### Product Partnerships

In 2012, we commenced discussions with a number of companies to sign product agreements. Our objective is to receive a cash donation for each product sold, whilst the company benefits from the positive image created by being environmentally friendly. We hope to significantly increase the number of product partnerships over time.



A visit to Ile de la Passe

### International Funding

MWF maintains excellent relationships with overseas governments, conservation organizations and a wide range of businesses and foundations. Unfortunately, the amount of support has diminished in recent years due to the world recession and the strengthening of the Mauritian rupee. However, we continue to look at ways to strengthen this means of funding, which is an important contribution to our work, ensuring that we remain an independent organization with a sound national and international perspective of conservation priorities.

*For details of sources of funding and allocation of resources to projects see page 38.*

## Financial Information

### Statement of Financial Position

	2012 Unaudited Rs m	2011 Unaudited Rs m
<b>Assets</b>		
Non-current assets	6.70	8.06
Current assets		
Cash and cash equivalents ■	1.49	1.47
Inventories ■	1.03	1.93
Other assets ■	5.28	5.63
	7.80	9.03
<b>Total Assets</b>	<b>14.50</b>	<b>17.09</b>
<b>Equity and liabilities</b>		
Accumulated fund ■	(3.01)	(2.70)
Non-current liabilities ■	6.41	7.75
Current liabilities ■	11.10	12.04
<b>Total equity and liabilities</b>	<b>14.50</b>	<b>17.09</b>

### Statement of Comprehensive Income

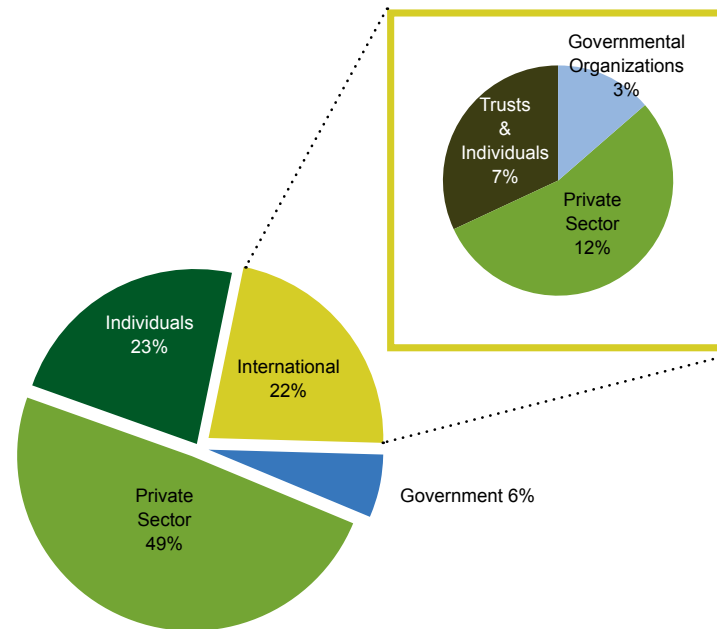
	2012 Unaudited Rs m	2011 Unaudited Rs m
<b>Revenue</b>		
Grants ■	20.41	22.82
Donations ■	1.74	0.46
Finance income ■	0.01	0.02
Other income ■	6.80	6.42
	28.96	29.72
<b>Expenses</b>		
Project expenses ■	23.88	25.85
Administrative expenses ■	2.82	3.07
Other expenses ■	0.66	0.90
Depreciation ■	1.90	1.80
	29.26	31.62
<b>Total comprehensive loss</b>	<b>(0.30)</b>	<b>(1.90)</b>

Note: Figures are in rupees millions.

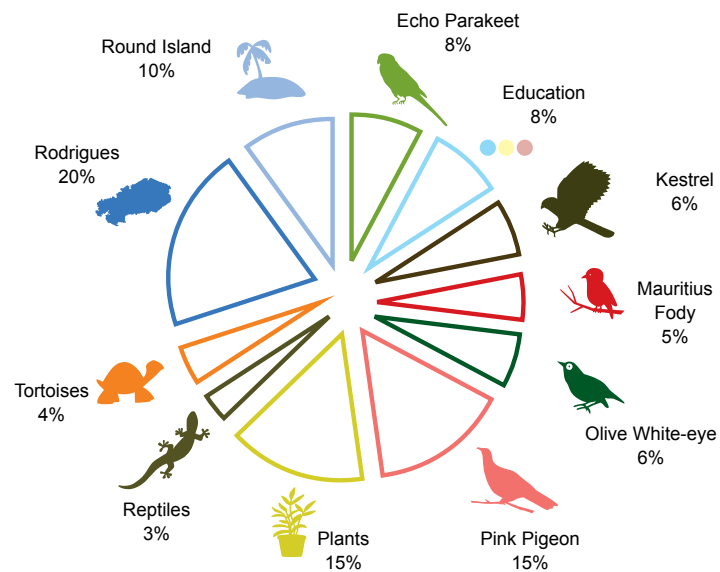


## Financial Information continued...

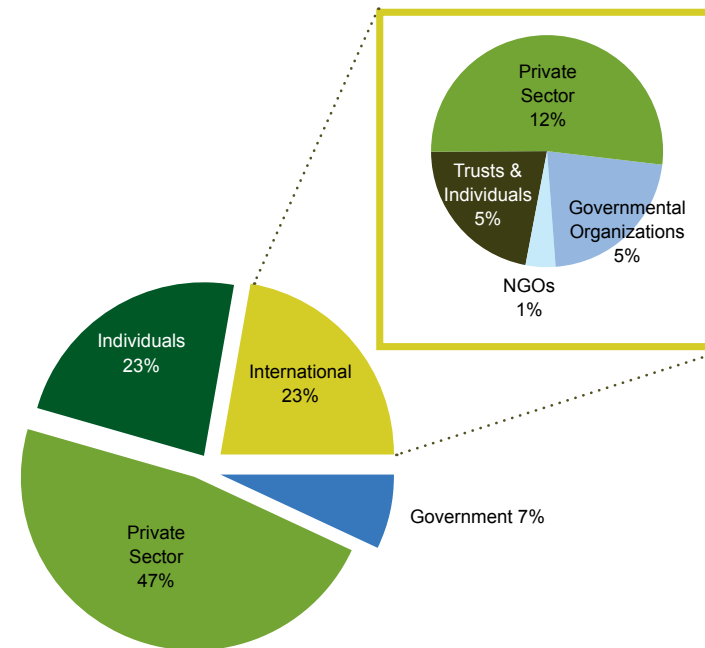
### Revenue 2012



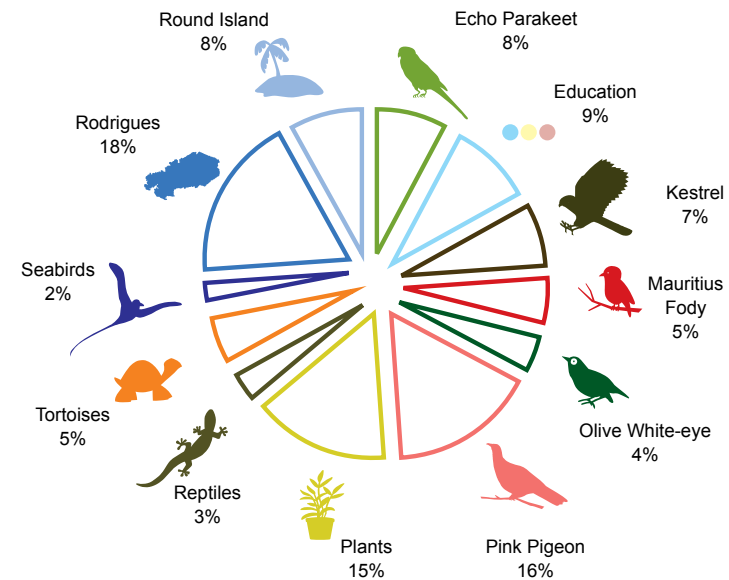
### Revenue Allocation 2012



### Revenue 2011



### Revenue Allocation 2011



## Our Donors

The Mauritian Wildlife Foundation is a non-profit organization, which can only operate through the support of donations and grants. We are proud to list the businesses, organizations and individuals who have contributed during 2011 and/or 2012. Every funder is important to us, large or small, for without your continuing participation our work would not be possible. We thank all of you equally.

- A Maunapen Fencing & Contractors
- Abax Corporate Services
- ABC Coach Works Ltd
- Active Freight Ltd
- Afrasia Bank
- Air Mauritius
- Ascencia Ltd
- Atlai Construction
- Australian High Commission
- Batch Image Processing Indian Ocean Ltd
- Bentys Ltd
- Birkmayer, Philipp
- BirdLife International
- Borato, Bridget
- Building & Civil Engineering Co Ltd
- Bulk Bitumen
- Cannings, Frank
- Carpentier, Nicole
- Carver, Lucy
- Casa Sola Limited
- Case Noyale Ltée
- Chamarel Cosmetic Ltd
- Chem-Plus Ltd
- Chicken Master Co Ltd
- Cim Group
- Cirad Reunion
- Circle Charitable Trust
- Colas Maurice Ltée
- Compagnie de Beau Vallon Ltée
- Compagnie Indus de St Melior Ltée
- Compagnie Maroquinerie de l'Océan Indien
- Compagnie Sucrière de Bel Ombre Ltd
- Confident Asset Management
- Connections Ltd
- Conservation Trust, Government of Mauritius
- Consultancy Company Ltd
- Coroi Maurice Ltd
- Corona Clothing Hong Kong Company
- Data Communication Logistics Ltd
- Daytona Ltd
- De Chermont and Partners Ltd
- De La Salle RCA
- de Spéville, Jacques
- Deramann Limited
- Desvaux, Jean François
- Deutsche International Trust Corporation
- Distripco Ltd
- Divespot Ltd
- Dodo Trail
- Domaine de Labourdonnais Ltée
- Drion, Laurent
- Dry Cleaning Services
- Durrell Institute of Conservation and Ecology
- Durrell Wildlife Conservation Trust
- Easy Dive Diving Centre Ltd
- Ebony Forest Co Ltd
- Electrical & Control Specialists
- Elite Indian Ocean Ltd
- Eller, Joachim
- Emcar Manufacturing Ltd
- Emtel
- ENL Foundation
- Ernest Kleinwort Charitable Trust
- Ernst & Young
- Espace Marin
- Esther, Monia
- Etude Robert Avrillon
- Euro CRM (Mauritius)
- Fanfaron Advertising
- Fideco Global Business Services
- Filao Limitée
- Fine Foods Marketing
- Flexicom & Co Ltd
- Fondation Constance
- Fondation GML Joseph Lagesse
- Fondation Harel Mallac
- Fondation Mauritius Union
- Fondation Médine Horizons
- Fondation Solidarité (FAIL)
- Forex Direct Ltd
- Forges Tardieu Ltd
- Forget, Dr Philippe
- Forget, Philippe Jnr
- Fortaweld Limited
- Fotaflex Limited
- Friends of Mauritian Wildlife
- Fuel Steam and Power Generation Co Ltd
- Gallery Pangolin
- General Construction Ltd
- GFA Insurance Ltd
- Gibbs Mauritius
- Golden Foods Ltd
- Habit
- Happy Rajah Ltd
- Happy Rani Ltd
- Happy World
- Harcroft Foundation
- Harrison, Peter
- Holcim (Mauritius) Ltd
- Holiday Villages Management Services
- HSBC
- IBL Foundation
- IBL Staff Association
- IFS Foundation/IFS Trustees
- India Capital Management
- Infinite Corporate Financial Services
- Infomil
- Inicia Ltée
- Inter Kable Ltd
- International Distillers Mauritius Ltd
- International Press and Book Distributors
- International Proximity
- Investec Bank (Mauritius) Ltd
- Island Conservation
- Island Logistics Ltd
- J. Kalachand & Co Ltd
- Japanese Government
- Johnston, Peter
- Just Flowers Ltd
- K T Fook Chong & Co Ltd
- Kaytee Manufacturer
- Kinnoull Foundation
- Kross Border Trust
- La Prudence Leasing Finance
- La Sentinelle Ltd
- La Trobe Co Ltd
- Lam Po Tang & Co Ltd
- Lam Po Tang & Siew Architects Ltd
- Lamco International Insurance Ltd
- Le Cabinet Limited
- Le Defi Media Group
- Le Domaine de la Vallée de L'Est
- Les Gaz Industriels Ltd
- Les Moulins de la Concorde
- Lim How Brothers Co Ltd
- Lindeth Charitable Trust
- Lohson Industries (Mtius) Ltd
- Luchman, King
- Makooona, Lawrence
- Mapub Ltd
- Maritim Hotel Mauritius
- Mauriplage Investment Ltd
- Mauritius Cosmetics Ltd
- Mauritius Development Investment Trust Co Ltd
- Mauritius Girl Guides Association
- Mauritius Oil Refineries Ltd
- Mauritius Research Council
- Mauritius Telecom Foundation
- MDC (Indian Ocean)
- MDC (Mauritius)
- Mechanization Investment Ltd
- Mercieca, Mr & Mrs
- Metal Can Manufacturers Ltd
- Mohammed Bin Zayed Species Conservation Fund
- Moulins de la Concorde
- MSC Mauritius Ltd
- Murphy, Marianne
- MVM Charitable Trust
- Nabridas Manufacturing
- National Parks and Conservation Fund (Government of Mauritius)
- New Capricorn Services Ltd
- New Noah Programme
- Newton Development Ltd
- Newton Securities
- North of England Zoological Society (Chester Zoo)
- Notre Dame College
- Nottingham Trent University
- Oisel (Maurice) Ltée
- Oisel Overseas Ltd
- Pam Golding Properties
- Pangolin Gallery
- Paradise Plastic and Tools Ltd





## Our Donors continued...

- Pascal, Pierre-Yves
- Pex Hydraulics (Mauritius) Ltd
- Pickles, Thomas
- Pictet, Stéphanie
- Pierre Ah Sue Foundation (Sotravic)
- PPP Piping Systems Limited
- Presqu'île Ltée
- Pricewaterhouse Coopers
- Profilage Océan Indien Ltée
- Publi Promo Ltd
- Rauner, Laurent
- Rey & Lenferna Ltd
- Roadway Co Ltd
- Robert Le Maire Ltd
- Rogers Foundation
- RT Knits Ltd
- Ruth Smart Foundation
- Schindlers Trust
- Scott Smile Foundation
- Sedeco
- Shamal Bodycare Ltd
- Sophalco Ltd
- Southern Cross Tourist Company Ltd
- St Mary's Charity
- Standard Bank Mauritius Ltd
- Standard Chartered Bank
- Sui Ko Co Ltd
- Summertime
- Sun Resorts CSR Fund Ltd
- Swan Group Foundation
- T & T International Foods Ltd
- Taktik Architects Company
- Tayelamay & Sons Enterprise Ltd
- Taylor Smith Foundation
- Terra Foundation  
(formerly Fondation Harel Frères)
- Tissue Converting Ltd
- Touch Wood (International) Ltd
- Toyota Mauritius Ltd
- UNDP - GEF/SGP
- Unicorn - MSJ Ltd
- United Investment Ltd
- University of Reading
- Urbanscape Ltd
- Vector International Ltd
- Victoria Tackle
- Vita Rice Limited
- Wan Trading Co Ltd
- Wing Foot Company Ltd
- Yesterday Co Ltd
- Yip Tong & Sons Ltd
- Zoological Society of Philadelphia



## Our Partners

- Agricultural Research and Extension Unit
- Air Mauritius
- Barnard, Véronique
- BirdLife International
- Conservatoire Botanique National de Mascarin, Réunion
- Coral Wave Ltd
- Crosières Austral
- Dialekt Ltd
- Discovery Rodrigues
- Durrell Institute of Conservation and Ecology
- Durrell Wildlife Conservation Trust
- Ecole Hôtelière de Maurice
- Ecosud
- Editions Vizavi
- Emtel
- Forestry Service
- François Leguat Ltd
- Global Invasive Species Programme
- International Zoo Veterinary Group
- Island Conservation
- Island Conservation Society (Seychelles)
- IUCN
- La Crie
- La Sentinelle Ltd
- Le Defi Media Group (Radio Plus & Defi Plus)
- Le Preskil Hotel
- Mauritius Broadcasting Corporation
- Mauritius Cane Authority
- Mauritius Herbarium
- Mauritius Marine Conservation Society
- Mauritius Meteorological Service
- Mauritius Museums Council
- Ministry of Agro Industry, Food Production and Security
- Ministry of Education and Human Resources
- Ministry of Environment and National Development Unit
- Ministry of Fisheries
- Ministry of Health and Quality of Life
- Ministry of Labour
- Ministry of Tourism
- National Coast Guard
- National Heritage Fund (Ministry of Arts and Culture)
- National Parks and Conservation Service
- Natural History Museum (London)
- Nature Seychelles
- North of England Zoological Society (Chester Zoo)
- One Love
- Orange (Mauritius Telecom)
- Parc National de La Réunion
- Police Helicopter Squadron
- Prime Minister's Office (Home Office)
- Rajiv Gandhi Science Centre
- Reef Conservation Mauritius
- Rodrigues Catholic Education Authority
- Rodrigues College
- Rodrigues Council of Social Services
- Rodrigues Education Development Company
- Rodrigues Police for Environment
- Rodrigues Regional Assembly
- Royal Botanical Gardens, Kew, UK
- Royal Society of Arts and Science
- SAFRING (University of Cape Town)
- Seychelles Island Foundation
- Shoals Rodrigues
- Société d'Etudes Ornithologique de La Réunion
- Special Mobile Force
- Totof
- Universities of Aarhus, Bristol, Cambridge, Cardiff, East Anglia, Kent, Kwazulu-Natal, London, Mauritius, North-West, Nottingham Trent, Pretoria, Reading, Réunion, Stanford, and Zurich
- Viva Voce Ltd (Radio One)

# Our Staff

## Local Staff

■ Ingrid Adam	■ Bhavnah Komul
■ Marie Estelle Agathe	■ Ajit Kumar Lallsing
■ Bibi Zairabee Ahamud	■ Denis Lamarque
■ Sunita Ancharaz	■ Nadine Lamarque
■ Patricia Antoine	■ Josime Legentil
■ Nadine Armelle	■ Denis Li Lung Hok
■ Vale Armoogum	■ Marie Dianella Lolo
■ Jennifa Augustin	■ Asha Luchmaya
■ Laurent Ayady	■ Diraj Luximon
■ Vanessa Bactora	■ Joseph Jokenson Manan
■ Yannick Baulacky	■ Marie Sabrina Manan
■ Alfred Bégué	■ Isabelle Martine Marie
■ Fristina Bernard	■ Nicole Matoka
■ Samade Bissessur	■ Stephan Mellier
■ Rick-Ernest Bonnier	■ Liliana Meunier
■ Martine Brasse	■ Corinne Montocchio
■ Anissa Calloo-Rohimun	■ Soobrayen Mootoocurpen
■ Jenifer Cesar	■ Melanie Moutou
■ Roberto Cesar	■ Keven Murday
■ Aurélie Chowrimootoo	■ José Palmire
■ Dabisingh Choytun	■ Jocelyn Pariapen
■ Sooriallal Chumbit	■ Jean André Noel Philippe
■ Gianni Clarisse	■ Jean Kurtis Philippe
■ Gabriel D'Argent	■ Jean Daniel Pierre Louis
■ Deborah de Chazal	■ Jean Eric Polimont
■ Isabelle Désiré	■ Sandra Poongavanan
■ Doreen Duguesclin	■ Asha Poonyth
■ Christabelle Duhamel	■ Marie Emilie Raffa
■ Souraj Dwarika	■ Lone Raffray
■ Louis Stanley Espiègle	■ Frissot Raphael
■ Jessica Etienne	■ Marie Florese Raphael
■ Joseph Elie Farla	■ Aruna Rookny-Ramkissoon
■ Christelle Ferrière	■ Riad Rujad
■ Harène Francoise	■ Rogini Runghen
■ Poonam Gangaram-Tatayah	■ Sarvesh Seebarrun
■ Jean Hugues Gardenne	■ Liloutee Seechurn
■ Martine Gebert	■ Jean Claude Sevathian
■ Martine Joelle Goder	■ Anieta Shan-Yu
■ Reshma Gokhool	■ Raj Heerasing Somna
■ Benny Henry	■ Benoit Soobaya
■ Jenica Jean	■ Christio Speville-Hortense
■ John Cliff Jean	■ Marvind Tapsee
■ Zayd Jhumka	■ Vikash Tatayah
■ Vincenzo Clive Joseph	■ Danny Thisbé
■ Diane Juhoor-Laboucherie	■ Dany Vencatasamy
■ Ashok Khadun	■ Andrea Waterstone
■ Stephan Kirsakye	■ Nicolas Zuel

## Local Volunteers and Students

■ Pavanee Annasawmy	■ Aude Cecile Edouard	■ Sheyne Moodelly
■ Anoushka Armoogum	■ Marie Josik Shelby Emilien	■ Yuneeda Oozeerally
■ Teesha Baboorun	■ Fabrice Etienne	■ Ricarline Parmasse
■ Yeshna Bahadoor	■ Marie Pascaline Francois	■ Lucilla Permal
■ Imaan Balbolia	■ Ronnie Francois	■ Jeremy Perrine
■ Rachelle Bangard	■ Evan Gontran	■ Jerry Perrine
■ Chetand Bappoo	■ Hans Gontran	■ Marie Diane Perrine
■ Vasish Baungally	■ William Gontran	■ Marie Dianette Perrine
■ Sheena Bechard	■ Vishnee Heeroo	■ Sophie Perrine
■ Bhamini Beessoo	■ Vandana Heetun	■ Jamema Philippe
■ Jah-Dana Bernard	■ Chesta Deri Indra	■ Jean Kurtis Philippe
■ Jah-Melia Bernard	■ Yohan Emmanuel Isoop	■ Xavier Piat
■ Nitish Bissoondoyal	■ Karishma Jankee	■ Lady Sarah Jane Prudence
■ Anne-Lise Blackburn	■ Zainal Kareemun	■ Tracey Ramburn
■ Steeves Jack Dany Buckland	■ Dee Keevan	■ Hadrian Ramdoyal
■ Nandita Mishka Bundhoo	■ Alan Clive Kong Kam Wa	■ Monesh Ramessur
■ Vincent Casse	■ Yannick Labonne	■ Bryan Ramma Naicken
■ Emmanuelle Charoux	■ Laetitia Lamoureux	■ Alexandre Ravanne
■ Nadine Chelin	■ Audrey Laroche-Coralie	■ Cedric Ravanne
■ Natasia Chong Lee Shin	■ Jean Noe Legoff	■ Elodie Ravanne
■ Kissoonduth Churrun	■ Jean Yves Legoff	■ Geerjanand Runjeetsing
■ Vishwanee Chuttoo	■ Jeremy Legoff	■ Jean Pascal Samois
■ Francette Clair	■ Julio Legoff	■ Jean Daniel Scott Sang Hue
■ Jules Florent Clair	■ Sylvette Legoff	■ Pavi Sawmy
■ Patrice Clair	■ Olivier Lisette	■ Vasisht Seetapah
■ Priscilla Coopen	■ Devendra Mahadeb	■ Diksha Soopal
■ Halimi Cornet	■ Marie-Noella Manikion	■ Christina Tracey Tang Wah
■ Marie Veronique Couttee	■ Stephanie Manuel	■ Desire Maeva Ternel
■ Mala Curroah	■ Fabio Marianne	■ Caryn Tin
■ Lionel Daugnette	■ Juninio Marianne	■ Anne-Lise Violette
■ Jacques de Spéville	■ Yann Merven	■ Julia Vitry
■ Arvind Dhawotal	■ Diya Bakshi Mohadeb	■ Warren Ludovic
■ Nadeem Durbarry	■ Fabiola Monty	■ Wan Pang Chung





## Our Staff continued...

### Expatriate Staff, Volunteers and Students

- |                       |                             |
|-----------------------|-----------------------------|
| ■ Manuella Ambrozo    | ■ Thomas Lewis              |
| ■ Laura Bambini       | ■ Kendra MacDonald          |
| ■ Patrick Banville    | ■ Gwendolyn Maggs           |
| ■ Alistair Baxter     | ■ Grace Mansfield           |
| ■ Richard Baxter      | ■ Rupert Masefield          |
| ■ Karen Booth         | ■ Mhairi McCready           |
| ■ Coralie Borreil     | ■ Alice Mercier             |
| ■ Richard Burger      | ■ Shankar Meyer             |
| ■ Lucy Carver         | ■ Saoirse Morgan            |
| ■ Ffion Cassidy       | ■ Karen Neech               |
| ■ Harriet Clark       | ■ Tegan Newman              |
| ■ Coline Closson      | ■ Vicki Norton              |
| ■ Julie Cole          | ■ Joshua Noseworthy         |
| ■ Lisa Cole           | ■ Peadar O'Connell          |
| ■ Nik Cole            | ■ Lucy Ormsby               |
| ■ Lianne Concannon    | ■ Edward Packshaw           |
| ■ Richard Dale        | ■ Alison Phillip            |
| ■ Rachel Davenport    | ■ Alexa Piggott             |
| ■ Zoe Deakin          | ■ Margaux Pizzo             |
| ■ Thomas Durcan       | ■ Unai Plaza Del Castillo   |
| ■ Johanna Engelhardt  | ■ Lee Madeleine Radford     |
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| ■ Alexander Fleming   | ■ Heather Richards          |
| ■ Claudia Fleuter     | ■ Hugo Sampson              |
| ■ Laura Gallagher     | ■ Sarah Scott               |
| ■ Helen Gath          | ■ Hannah Simms              |
| ■ Jennifer Godber     | ■ Andrew Skinner            |
| ■ Alexandra Gray      | ■ Donal Smith               |
| ■ James Groombridge   | ■ Georgina Smith            |
| ■ Maider Guiu         | ■ Cedric Soutif             |
| ■ Thalassa Hamilton   | ■ Clare Stalford            |
| ■ Amy Hardingham      | ■ Zoe Stevens               |
| ■ Sarah Havery        | ■ Paul Tinsley-Marshall     |
| ■ Katharina Hehn      | ■ Simon Tollington          |
| ■ Sion Henshaw        | ■ Priya Tuvell              |
| ■ Lydie Héré          | ■ Ella-Louise Vogel         |
| ■ Catherine Heugh     | ■ Amy Warham                |
| ■ Paquita Hoeck       | ■ Samuel Watson             |
| ■ Karen Hotopp        | ■ Elizabeth Weaver          |
| ■ Jennifer Jackson    | ■ Katja Weibrecht           |
| ■ Nina Jensen         | ■ Megan Whittaker           |
| ■ Lucy Jones          | ■ Lucy Williams             |
| ■ Victoria Kaldis     | ■ Leslie Wilmet             |
| ■ Ramona Kaltenmeier  | ■ Edward Winfield           |
| ■ James Kidd          | ■ Andrew Wolfenden          |
| ■ Christopher Kinnear | ■ Melissa Wynn              |
| ■ Eliane Kuepfer      | ■ Tobias Zuest              |



## Management Committee

### President

■ Tim Taylor  
*Economist*  
*Company Chairman and retired*  
*Chief Executive (Mauritius)*

### Vice President

■ Deborah de Chazal  
*Chartered Accountant*  
*Executive Director (Mauritius)*

### Secretary

■ Jacques Jullienne  
*Retired Sugar Estates Administrator*  
*Retired Executive Director (Mauritius)*

### Assistant Secretary

■ Philippe la Hausse de la Louvière  
(to March 2012)  
*Scientist & Managing Director (Mauritius)*

■ Feerdaus Bundhun  
(from March 2012)  
*Barrister In-house Lawyer (Mauritius)*

### Treasurer

■ Damien Mamet  
*Chartered Accountant*  
*Director (Mauritius)*

### Assistant Treasurer

■ Gerard Pascal  
*Certified Accountant*  
*Retired Chief Finance Executive*  
(Mauritius)

### Scientific Director

■ Prof. Carl G. Jones MBE  
*Scientist*  
*International Conservation Fellow*  
(Mauritius/UK)

### Members

■ Christian Dalais  
*Businessman*  
*Company Chairman and*  
*retired Chief Executive (Mauritius)*

■ Georges André Robert  
*Retired Solicitor*  
*Senior Counsel (Mauritius)*

■ Feerdaus Bundhun  
(to March 2012)

■ Dr Andrew Greenwood  
*Veterinary Surgeon*  
*Specialist in Zoo and Endangered Species,*  
*International Zoo Veterinary Group (UK)*

■ Philippe la Hausse de la Louvière  
(from March 2012)

■ Paul Masterton  
*Chief Executive Officer,*  
*Durrell Wildlife Conservation Trust (UK)*

■ Dr Vikash Tatayah  
(from March 2012)  
*Scientist*  
*Conservation Director (Mauritius)*

■ Dr Roger Wilkinson  
*Head of Field Programmes and Research,*  
*North of England Zoological Society*  
(Chester Zoo) (UK)

■ Manickchand Puttoo  
*Director, National Parks and*  
*Conservation Service,*  
*Ministry of Agro Industry*  
(Mauritius)

## Management Team

### Executive Director

■ Deborah de Chazal

### Conservation Director

■ Dr Vikash Tatayah  
(from December 2012)

### Conservation Manager

■ Dr Vikash Tatayah  
(to November 2012)

### Finance Manager

■ Aruna Rookny

### Fundraising Manager

■ Jean Hugues Gardenne  
(from July 2011)

### Fundraising Manager/ Fundraising Executive

■ Lone Raffray  
(to June 2011/to June 2012)

### Flora Manager

■ Dr Asha Poonyth  
(to October 2012)

### Fauna Manager

■ Dr Nicolas Zuel

### Ecotours Manager

■ Danny Thisbé

### Rodrigues Administrator

■ Andrea Waterstone

### Project Manager

■ Frederique Koenig  
(to July 2011)

### Reptile Translocation Manager

■ Dr Nik Cole

### Islet Plant Restoration Manager

■ Ashok Khadun

### Rare Plant Conservation Officer

■ Jean Claude Sevathian

### HR Manager & PA to Executive Director

■ Nadine Armelle

### Accountant

■ Martine Gebert

### IT Officer

■ Riad Rujad

### Rodrigues Environment Educator

■ Liliana Meunier



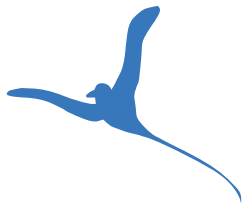
## Congratulations!

On 1 June 2011, MWF's then-Conservation Manager, **Vikash Tatayah**, received a PhD for his work on the Round Island Petrel, graduating at the University of Mauritius on 11 October. This was a well-deserved achievement, particularly because Vikash did not have the luxury of undertaking full-time study, having to balance his research with a demanding role at MWF. Well done, Vikash!

MWF Scientific Director, **Prof. Carl Jones**, was nominated as one of the six contenders for the prestigious Indianapolis Prize 2012 celebrating outstanding achievement in animal conservation. Although Carl didn't emerge as the winner, we are very proud that his work was recognized in a world context.

**Richard Payendee** joined MWF Rodrigues in 1998 and became Rodrigues Conservation Manager, running our projects there until 2007 when he left to pursue a career in politics. In March 2012, he was elected to the Rodrigues Regional Assembly and was made Commissioner for Environment, Forestry, Tourism, Marine Parks and Fisheries, giving him the opportunity to continue his commitment to conservation issues on Rodrigues.





## Getting in Contact

### How can you help or become involved?

#### Become a donor

MWF is a non-profit organization and can only carry out its work with the support of donations. Whether you are an individual, a university, a foundation or a company, please take the opportunity to become one of our donors and support vital conservation work. Various activities linked to corporate social responsibility can be arranged with MWF, please contact us for more information on: [fundraising@mauritian-wildlife.org](mailto:fundraising@mauritian-wildlife.org)

#### Adopt an animal

MWF has introduced a concept to raise funds for its conservation projects whereby individuals now have the chance to adopt an animal. (Please note, it is only a symbolic adoption and gives no right to the species.) Five animal species are available for adoption namely the Pink Pigeon, Aldabra Giant Tortoise, Mauritius Fody, Ornate Day Gecko and Olive White-eye.

Please email [adoption@mauritian-wildlife.org](mailto:adoption@mauritian-wildlife.org) for more information.

#### Visit Ile aux Aigrettes

Ile aux Aigrettes is open for guided tours seven days a week.

Book your ticket by phone on (230) 6312396

or email: [reservation@mauritian-wildlife.org](mailto:reservation@mauritian-wildlife.org)

#### To make a donation

■ Send a cheque or postal order, made payable to Mauritian Wildlife Foundation (see address below)

■ Make a donation through our website, select donation on [www.mauritian-wildlife.org](http://www.mauritian-wildlife.org)

■ Make a bank transfer. MWF's bank details are as follows:

The Mauritius Commercial Bank, Port Louis, Mauritius

IBAN Number: MU52MCBL0901000000204792000MUR

Swift BIC: MCBLMUMU / Account Number: 010204792

Account currency: Mauritian rupees

Please include your full name and contact details, including an email address, with each donation.

Address your correspondence or questions regarding donations to:

The Fundraising Manager - Mauritian Wildlife Foundation

Grannum Road - Vacoas - Mauritius

Tel: (230) 6976097

Email: [fundraising@mauritian-wildlife.org](mailto:fundraising@mauritian-wildlife.org)

## Volunteer for Us

The Mauritian Wildlife Foundation is always keen to hear from university graduates who would like to gain practical experience and pursue a conservation career working within our organization. We accept volunteers throughout the year to work on a range of our projects.

The work may involve endemic bird nest location and monitoring, radio tracking, population monitoring, report writing, animal handling of Pink Pigeons, Echo Parakeets, Mauritius Kestrels and passerines, and conservation of rare plants. Projects are located on mainland Mauritius and Rodrigues, as well as on offshore islets such as Round Island and Ile aux Aigrettes. MWF may also require volunteers in a range of other disciplines such as translation, journalism, IT, accounting, photography, education, guiding, etc.

Working for MWF gives you the opportunity to gain valuable experience of conservation work in the recovery of endangered species, for which we are world-renowned.

If you require further information, please refer to our website at:

[www.mauritian-wildlife.org](http://www.mauritian-wildlife.org) or contact [volunteer@mauritian-wildlife.org](mailto:volunteer@mauritian-wildlife.org)

To apply, send your CV and personal details to [volunteer@mauritian-wildlife.org](mailto:volunteer@mauritian-wildlife.org)

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Thanks to all photographers and also to the staff/students/volunteers of MWF (past and present) for their contributions to this report.

This report is also available for download from our website at

<http://www.mauritian-wildlife.org>

#### Information and contact details

For queries, suggestions and comments, please contact

The Executive Director, [executive@mauritian-wildlife.org](mailto:executive@mauritian-wildlife.org)

For correspondence or questions concerning donations and adoptions, please contact The Fundraising Manager, [fundraising@mauritian-wildlife.org](mailto:fundraising@mauritian-wildlife.org)

For matters concerning visiting Ile aux Aigrettes or ecotour activities, please contact The Ecotour Manager, [reservation@mauritian-wildlife.org](mailto:reservation@mauritian-wildlife.org)

## Thank you for your support

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Website: [www.mauritian-wildlife.org](http://www.mauritian-wildlife.org)