

RÉUNION AND RODRIGUES, THE OTHER MASCARENES  
**THE FORGOTTEN ISLANDS**

Close to well-known Mauritius, two remote islands in the Indian Ocean are a secret haven for many endemic, fascinating species

## *A cluster of islands alive with fire and water*

TEXT AND PHOTOS  
BY OLIVIER ESNAULT

*R*éunion and Rodrigues islands belong to the Mascarene archipelago in the Indian Ocean. Both are a nature destination that should not to be missed under any circumstance! Let's discover these two islands characterized by wild nature and exceptional environments. The Mascarene archipelago consists of three islands: Réunion, Mauritius and Rodrigues island. They are a thousand kilometers away from the east coast of Madagascar, between the nineteenth parallel south and the Tropic of Capricorn. Mauritius is definitely the most popular destination of this archipelago for tourism. Its large white sand beaches, luxury hotels and mass tourism are particularly popular with tour operators. Unfortunately, on this island, the environment has been damaged due to economical development. Rodrigues island is small (108 sqkm), surrounded by a lagoon twice as big as its terrestrial surface. Rodrigues is part of the Republic of Mauritius but has benefited independence on some matters in 2002. The population is around 40,000 inhabitants and the capital is

Port Mathurin. It is located about 800 km East of Réunion island. Réunion island is a French overseas department, located about 700 kilometers East of Madagascar. It is 2,512 sqkm and its highest peak, the Piton des Neiges, is 3,075 meters high. Its growing population is of 800,000 inhabitants and is expected to reach 1 million by next decade. The volcanic islands of the Mascarene archipelago are all originated from the hotspot that feeds the Piton de la Fournaise in Réunion island. This volcano is the only active one in the region. Volcanism reliefs are omnipresent and may be seen in every landscape. Rodrigues was the first of the Mascarene islands to emerge, followed by Mauritius and then Réunion island, that emerged about three million years ago. Réunion Island being the youngest island of the archipelago, its relief is still very steep. The combination of volcanism, tectonic landslide events, heavy rainfalls and stream erosion have formed a rugged and dramatic landscape of striking beauty,

*continued on page 13* ➤



*A volcanic eruption on Réunion; on the opening spread, a Fairy Tern Gygis alba on Rodrigues.*

■ *The rugged coastline  
at Saint-Philippe, on Réunion.*





■ Nesting Brown Noddy *Anous stolidus*  
on the Ile aux Cocos, Rodrigues.

dominated by two towering volcanoes, the dormant Piton des Neiges and the very active Piton de la Fournaise. Other major landscape features include "remparts", steep rock walls of varying geological age and character, and so-called "cirques", which can be described as massive natural amphitheatres with an imposing height and verticality. There are also deep, partly forested gorges and escarpments, with subtropical rainforests, cloud forests and heathlands, thus creating a remarkable and visually appealing mosaic of

ecosystems and landscape features. In the Piton des Neiges massif, several peaks dominate above 2,200 meters: Cimendef, Roche Ecrite, Grand Bénare. "Pitons", "cirques" and "remparts" of Réunion island were integrated to the UNESCO world heritage sites on August 1st, 2011.

The last eruption of the Piton de la Fournaise took place on December 10th, 2010 and lasted about a day. Being a spectator of an eruption is a magical moment that remains etched in your memory. Eruptions from the Piton de la Fournaise are effusive, which

*continued on page 17* ➤



*A paradise for naturalists  
in search of endemics*



Lesser Noddy *Anous tenuirostris*,  
fishing in shallow water  
at the Ile aux Cocos, Rodrigues.



 The stunning, otherworldly landscape of the Plaine des Sables on Réunion.



Left, Réunion's Green Gecko *Phelsuma borbonica borbonica*; right, top, Green Gecko of Manapany *Phelsuma inexpectata*; right, bottom, another image of the same species.





## *The supreme grace of the soaring Tropicbird*

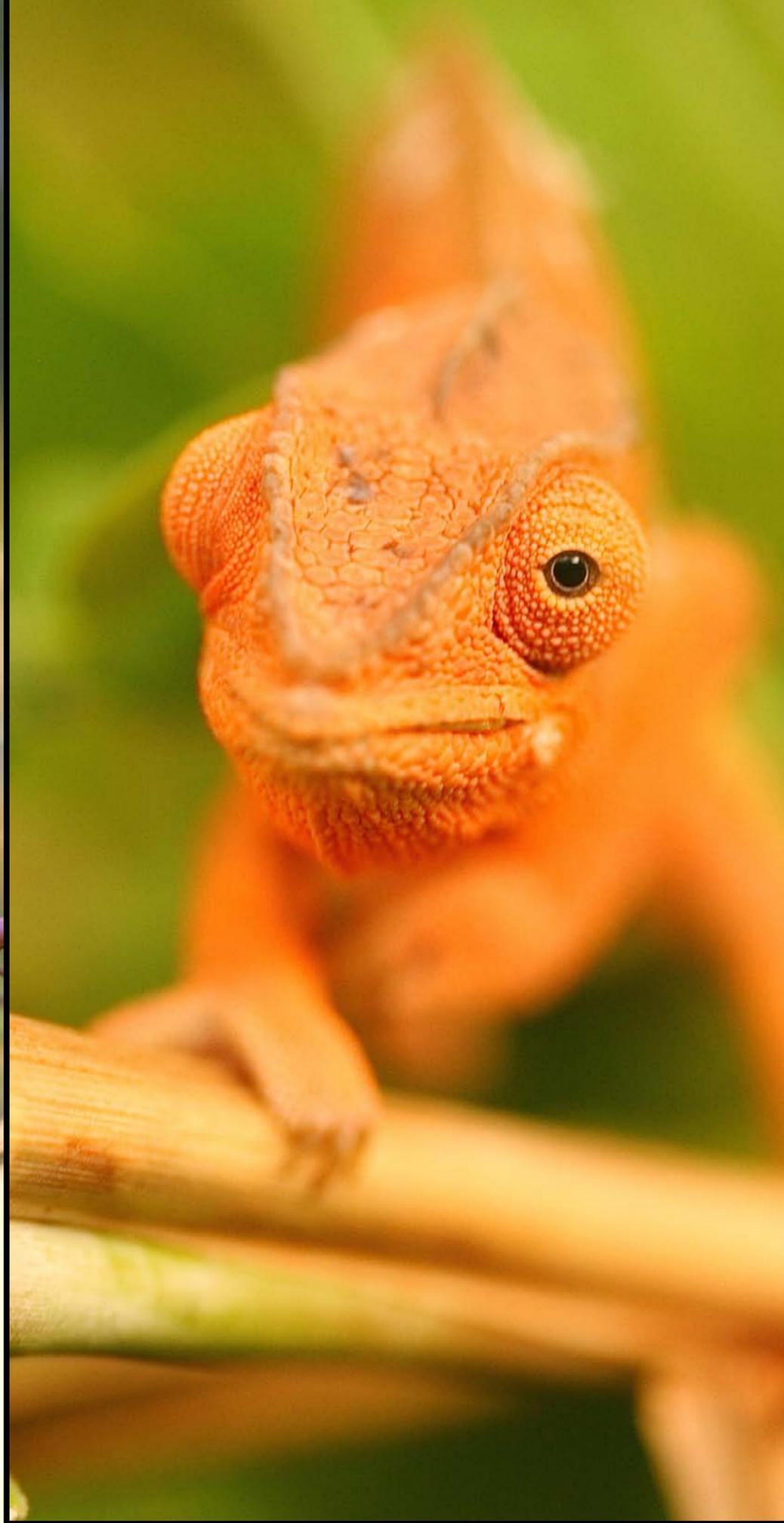


makes them relatively safe to watch from close distances. The many hiking trails on the slopes of the volcano are fully secured and clearly marked. The climate at such a high altitude (2,632 m) is very inconstant and it is not uncommon to suffer as much from heat as from cold. One must therefore be equipped appropriately and forget neither a windbreaker nor sunscreen ! On Rodrigues island, traces of volcanism are older and consequently harder to identify. A few basalt peaks are reminders of the presence of ancient magmatic chambers. Old lava flows are still distinct in the eastern part of the island, especially on the coast. The relief is much more attenuated than that

of Réunion island and the highest peak, Mont Limon is 398 meters high. These variable reliefs affect local climatology. Generally speaking, the climate is tropical humid, with a fairly strong seasonality. The dry season starts in April/May and ends in September. The rainy season lasts the rest of the year, when tropical storms and hurricanes occur.

The numerous microclimates in Réunion island (117 identified microclimates) are mainly due to the geography of the island. In the highest regions, frosts are not uncommon during the dry and cold season, and it may occasionally snow. The climate is also very different between the eastern windward shore

*continued on page 21* ➤



Far left, African Grass Blue *Zizeria knysna*; center, Panther Chameleon *Furcifer pardalis*; right, *Zisina antanossa* - all three species taken at Réunion.



■ Another far-ranging, stunning landscape of volcanic origin at the Rivière de l'Est on Réunion.



■ Left,  
Changeable  
Lizard *Calotes  
versicolor*;  
right, top,  
Rodrigues  
Yellow Fody  
*Foudia  
flavicans*;  
right, bottom,  
Common  
Waxbill  
*Estrilda astrild*  
on Rodrigues.



and the western lee shore. Due to a relatively low relief, the climate of Rodrigues island is much more uniform than that of Réunion island.

### ENDEMISM AND SPECIES

In the Mascarenes, indigenous species may be found on various islands whereas endemic species only exist on one of the islands, in specific habitats. Both indigenous and endemic species were present before man, who arrived with many exotic (and often invasive) animal and plants species. The main naturalistic attraction of Réunion and Rodrigues is their incredibly high endemism rate. For example, Réunion island is a paradise for botanists with over 200 species of indigenous and endemic ferns; over 150 orchid species

(mainly originary from Madagascar), are distributed in various ecosystems. Excluding a few bat species, there aren't any endemic mammals either in Réunion or Rodrigues island. On the other hand, there are endemic reptiles. These have all disappeared from Rodrigues island but three green diurnal gecko species remain in Réunion island (*Phelsuma inexpectata*, *Phelsuma borbonica borbonica* and *Phelsuma borbonica mater*). The green gecko of Manapany (*P. inexpectata*) is located in an area of a dozen square kilometers in the South of the island. Numerous other *Phelsuma* have been introduced from other islands (Madagascar, Mauritius, Seychelles, etc.) and proliferate, often to the detriment of endemic species. On Rodrigues Island, two endemic bird species may be seen: the Rodrigues

*continued on page 24* >

Fairy Tern *Gygis alba* with its single egg at the Ile aux Cocos on Rodrigues.





■ Rodrigues Flying Fox *Pteropus rodricensis* roosting during the day at Solitude, Rodrigues.

■ Left, the beach at Saint-Pierre;  
right, the lunar landscape  
of the Plaine des Sables -  
both on Réunion island.



warbler *Acrocephalus rodericanus* and the Rodrigues fody *Foudia flavicans*. The Réunion harrier *Circus maillardi* is the only endemic bird of prey of Réunion island. Other endemic bird species exist on the island, such as the Réunion Olive White-eye *Zosterops olivaceus* and the Réunion Grey White-eye *Z. borbonicus*. The Réunion stonechat, also called "tec-tec" in the creole language (*Saxicola tectes*) is a bird familiar to high regions. The Mascarene paradise flycatcher – locally called "zoizo la vierge" (*Terpsiphone*

*bourbonensis bourbonensis*) and the Réunion bulbul *Hypsipetes borbonicus* live in forests. Two seabirds are endemic to Réunion island: the Reunion petrel *Pseudobulweria aterrima* and the Barau's petrel *Pterodroma baraui*. Last but not least, the Réunion cuckooshrike or "tuit-tuit" *Coracina newtoni* is critically endangered, being a victim of the proliferation of rats. Where butterflies are concerned, many species can easily be observed on Rodrigues island, such as *Junonia rhadama*, although there isn't any

endemic species. There exist a few endemic butterflies and moths on Réunion island. One species, *Salamis augustina augustina*, is critically endangered due to the disappearance of its host-plant *Obetia ficifolia*. Some individuals are bred at the insectarium in the city of Le Port and may be observed there. As for Odonatas, there are almost 15 species in Reunion, including dragonflies and damselflies. One pretty endemic damselfly, *Coenagriocnemis reuniensis*, lives near water falls.

[continued on page 28](#) ➤

A Humpback Whale *Megaptera novaeangliae* breaches briefly at Saint-Gilles on Réunion.







■ Left, Brilliant Blue *Junonia rhadam* at the Etang Salé on Réunion; right, Reunion Grey White Eye *Zosterops borbonicus* at Le Tampon, again on Réunion.





 The atmospheric waterfall of the Bassin la Paix on Réunion.



Left, dawn on the coral reefs at Grands Bois on Réunion; right, top, Curlew Sandpiper *Calidris ferruginea* at the Rivière Saint-Etienne, Réunion; right, bottom, Grey Plover *Pluvialis squatarola* at the Etang du Gol on Réunion.



## IMPACTS ON BIODIVERSITY

Man has had - and still has - direct or indirect disastrous impacts on the biodiversity of both islands. In the past, Réunion and Rodrigues islands were supply stops for ships sailing through the Indian Ocean. In order to refill fresh meat, hundreds of giant turtles were loaded aboard the ships. It was a good way to avoid deficiencies of vitamins or proteins. Furthermore, turtles were able to survive quite a long time on a boat. The populations were thus very quickly reduced to almost nothing before disappearing from both islands. The same sad story has happened to numerous endemic flightless birds, such as the Rodrigues solitaire *Pezophaps solitaria*. The development of human settlements made the populations of introduced rats and cats increase. These

two species have a huge impact on breeding seabirds like the Barau's petrel. Rats, for example, are responsible for the near extinction of the "tuit-tuit" and the extinction of the Réunion owl *Mascarenotus grucheti*. Noddies and tropic birds are quite common in Rodrigues. A small island North-West of the lagoon, l'Île aux Cocos, is worth the detour. One side of the sandy islet is open to visitors where huge populations of Brown Noddies *Anous stolidus* and Lesser Noddies *A. tenuirostris* can be seen. In the high season, there are over 50,000 thousand noddies on the island – more than the inhabitants of Rodrigues! Sooty Terns *Onychoprion fuscatus* have established their colony in the area closed to visitors. Finally, the delicate and subtle Fairy Tern *Gygis alba* lays its single egg in the hollow of unstable

*continued on page 33* ➤



■ A Réunion Harrier  
Circus maillardi soars above  
the forest at Tévelave on Réunion.



Top left, Red Fody *Foudia madagascariensis* at Le Tampon, Réunion; bottom left, Common Waxbill *Estrilda astrild* again at Le Tampon; left, Village Weaver *Ploceus cucullatus* at Petite Ile, Réunion.

*Secret glimpses  
of a forgotten Eden*



■ Rainforest landscape with waterfalls and rocky stream at Grand Galet on Réunion.



Left, Red-Whiskered Bulbul *Pycnonotus jocosus* at Le Tampon; right, Reunion Stonechat *Saxicola textes* at the Plaine des Cafres on Réunion.





Pounding surf at the  
Pointe au Sel on Réunion.





■ Top, Whimbrel *Numenius phaeopus* at the Rivière Saint-Etienne, Réunion; right, Reunion Stonechat *Saxicola textes* at the Plaine des Palmistes; far right, Mascarene Paradise Flycatcher *Terpsiphone bourbonnensis*.

branches. Réunion and Rodrigues islands are salutary migratory halts for numerous species, especially shorebirds. Species present in the summer are practically the same on both islands. The Eurasian Curlew *Numenius phaeopus* is certainly the most common shorebird. Although Rodrigues is much smaller than Réunion island, it is host to a higher species diversity and to a greater quantity of individuals. Encountered species are: Curlew Sandpiper *Calidris ferruginea*, Sanderling *Calidris alba*, Common Sandpiper *Actitis hypoleucos*, Common Greenshank *Tringa nebularia*, Grey Plover *Pluvialis squatarola*, Common Ringed Plover *Charadrius hiaticula*, Greater Sandplover *Charadrius leschenaultii*, Bart-tailed Godwit *Limosa lapponica*, Lesser Sandplover *Charadrius mongolus*, Crab Plover *Droma ardeola*. I am always amazed at the capacity of migratory birds to

Curlew Sandpiper ■  
*Calidris ferruginea*,  
 Rivière Saint-Etienne, Réunion.



cross oceans to spend the summer in the lagoons of tiny islands. In 2010, I was lucky to watch Terek Sandpipers *Xenus cinereus* in the estuary of Saint Etienne river (Réunion island). And these birds reproduce in northern Scandinavia! The two individuals I observed stayed for two days before flying off to an unknown destination. Two migratory falcon species, Eleonora's Falcon *Falco eleonora* and

Sooty Falcon *Falco concolor* also stop on Réunion island.

#### CONSERVATION PROGRAMS

All of these frail insular ecosystems are protected on both islands. In 2007, a National Park was created in Réunion island. It covers a large area of the island and its main goal is to preserve endemism. In Rodrigues island, the

Mauritian Wildlife Foundation manages a nature reserve of about fifteen acres. A big restoration program has been established and many endemic plants are being reintroduced. This environment allows the survival of the two endemic birds and the endemic Rodrigues flying fox *Pteropus rodricensis*.

Rodrigues is also a diving paradise with a lagoon that is rather well preserved. One may also bask on the numerous great

white sand beaches. On Réunion island, the so-called lagoons are actually fringing reefs. However, they are full of fish and very nice for scuba diving. During winter, these islands are on the humpback whales' migration route. It's a magical show to observe whales, but this must be done in good conditions, with respect towards the animals. One may see mothers with their new-born calves, mating males and impressive jumps. ●



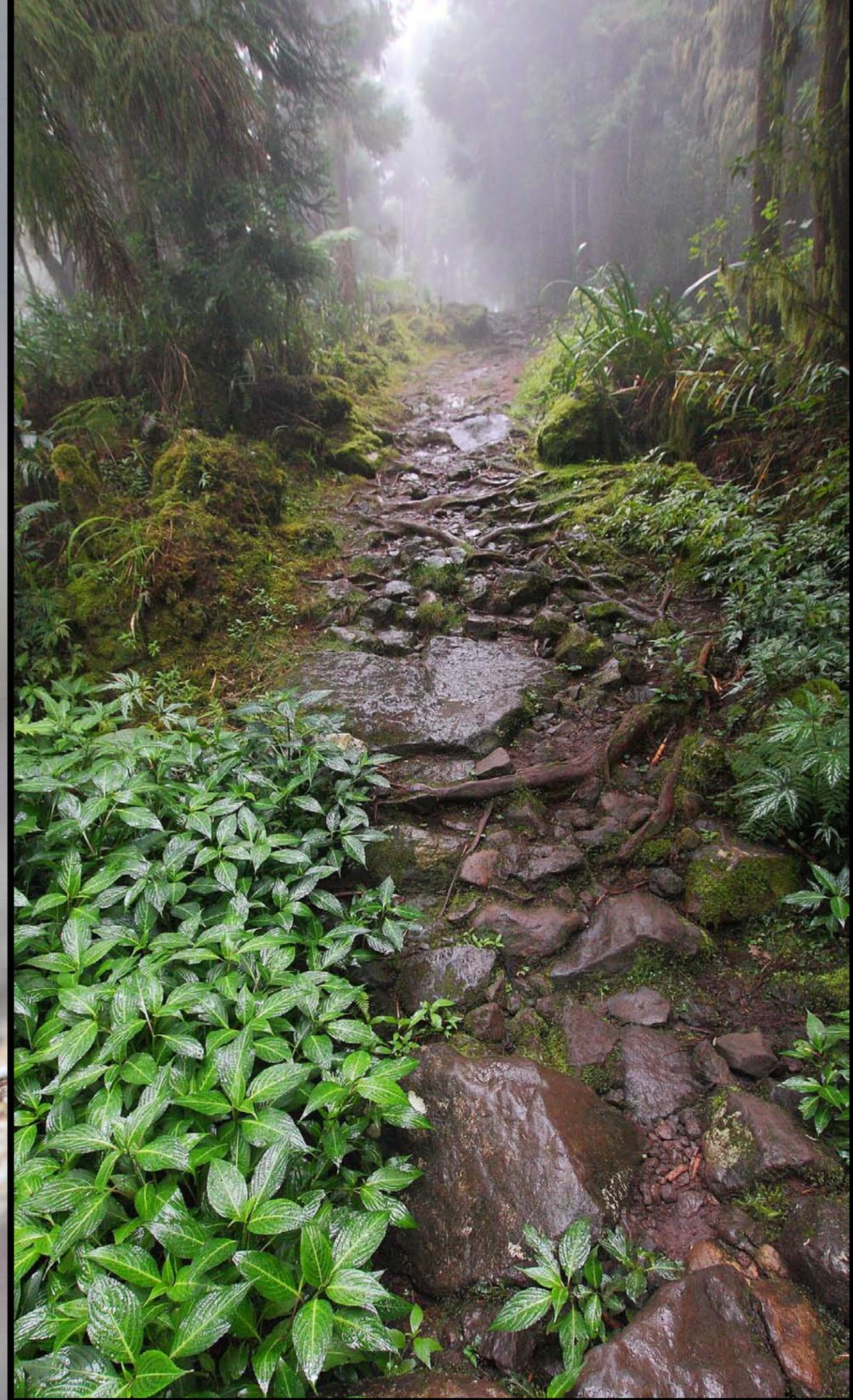
The spectacular, ■ far-ranging view at Piton des Neiges on Réunion.



■ *Hovering  
Fairy Tern  
Gygis alba  
at the Ile aux  
Cocos on  
Rodrigues.*



Rocky shore  
at Saint-Philippe, Réunion.



■ Far left, the endemic Réunion damselfly *Coenagriocnemis reuniensis*; center, a forest trail at Hell Bourg on Réunion; right, Barau's Petrel *Pterodroma baraui* at Saint-Étienne, Réunion.



Common  
Greenshank  
*Tringa nebularia*  
at the Rivière  
Saint-Etienne;  
right, dawn on  
the coral reef  
lagoon at Grands  
Bois on Réunion.



*Clouds at dawn  
set afire by sunlight*

*Sunlight and clouds at the  
Plaine des Cafres on Réunion.*

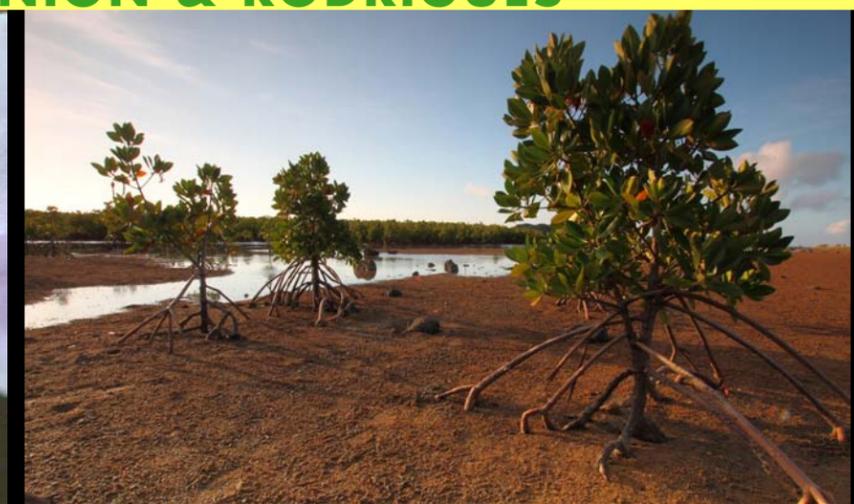
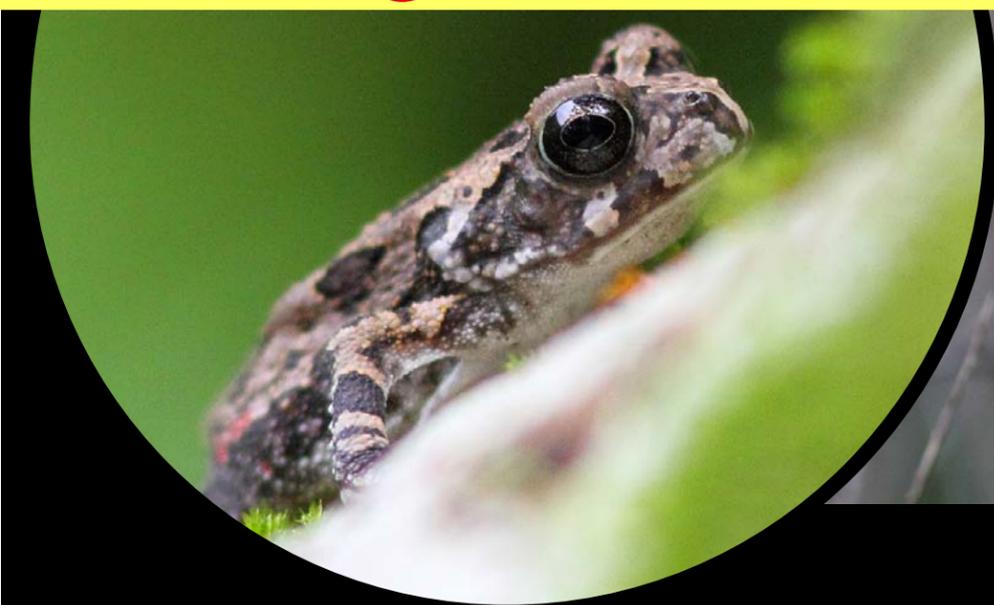




■ Ghost Crab *Ocypode saratan*  
at the Grande Anse beach  
on Réunion island.

# At-a-glance travel guide

COUNTRY OF DESTINATION: RÉUNION & RODRIGUES



## USEFUL TIPS FOR YOUR EXPEDITION

Some simple, common sense, field-tested advice and information to make the best out of your trip and avoid hassles, worries and problems

**ROUTE:** La Réunion is served by three airlines (Air Austral, Air France and CorsairFly) with departures from France. You can also fly with Air Mauritius, via Mauritius. There are two international airports on the island: Saint-Denis (Roland Garros) and Saint-Pierre (Pierrefonds).

Contacts:  
Saint-Denis: +262 262 48 80 00  
<http://www.reunion.aeroport.fr/>  
Saint-Pierre: +262 262 96 80 00  
<http://www.grandsudreunion.org/>

Best time to travel: each season has its own charm but the best periods, climatewise, are April/May and October/November. In December and January,

you will be able to gorge yourself on lychees and mangoes. Summer is also the best moment to observe numerous migrating birds and insects. During winter, in July and August, you will definitely see humpback whales.

Rodrigues is served by two airlines (Air Austral and Air Mauritius), with a compulsory stop in Mauritius. Sir Gaëtan Duval airport is located in Pointe Corail, South West of the island.  
Contact: +230 832 78 88

<http://www.airportofrodrigues.com/>  
Best time to travel: all year round, with maybe a recommendation for April/May and September/November.

**MEANS OF TRANSPORT:** Local car and scooter rentals possible and suggested, many offers both in Réunion and Rodrigues. Wildlife photographers should be prepared for long - although very pleasant - walks in a tropical climate.

**CURRENCY:** Mauritian Rupee for Mauritius and Rodrigues, French Franc in Réunion.

**ACCOMODATION:** In Réunion many local guest houses, a few luxury hotels. In Rodrigues many local guest houses. We suggest to avoid staying in luxury hotels, because that's really not the best way to discover Rodrigues and its inhabitants.

## Indian Ocean islands with an amazing incidence of endemisms



**FOOD:** Typically Indian Ocean/Creole food with fresh vegetables, rice and fish dishes - a lovely (and occasionally hot!) fusion between Indian, Chinese, Malay, African and European cuisine. The main local specialty is curry, a savory stew of meats, fish or shellfish, simmered with garlic, onions, ginger, cloves, turmeric, and other local spices. Curry is served with white rice, legumes (beans or lentils) and a spicy condiment called *rougail* made with tomatoes, lemon, and pistachios. Don't miss the local fruit such as mangoes or lychees when in season.

**LANGUAGE:** French and Creole, plus Chinese Hakka and Malay in a few areas.

**WORRIES:** None worth mentioning, but like in so many other places it's definitely better avoiding late night walks alone, especially if carrying expensive camera or video equipment.

**HEALTH:** No serious risks of dangerous tropical diseases. However it is worth mentioning that in 2005 and 2006, Réunion was hit by a crippling epidemic of chikungunya, a disease spread by mosquitoes. 255.000 people on Réunion had contracted the disease as of 26 April 2006. French Prime Minister Dominique de Villepin sent an emergency aid package worth 36 million Euro (57.6 million U.S. dollars) and deployed approximately five hundred French troops in an effort to eradicate mosquitoes.

**CLIMATE:** All the islands experience a humid tropical climate with monsoon rains from November to April. It might be worth noting that between 15 and 16 March 1952, Cilaos at the centre of Réunion received 1,869.9 millimetres (73.62 in) of rainfall. This is the greatest 24-hour precipitation total ever recorded on Earth. The island also holds the record

for most rainfall in 72 hours, 3,929 millimetres (154.7 in) at Commerson's Crater in March 2007, from Cyclone Gamede. Commerson also holds the record for most rainfall over all periods ranging from 4 to 15 days from a storm in 1980.

**BESIDES:** Given the warm and humid climate, we strongly recommend to travel light when visiting these islands. A good reflex camera, a medium focal length (a multipurpose 300mm f/4 is really useful), a wide-angle and a trans-standard zoom are enough. The fauna is not that wild, so very long focal lengths are not necessary and possibly not even useful. In certain cases, like in primary forests, a luminous lense, such as a 300mm f/2.8 is really adapted. Don't forget a tripod for landscapes. ●

(Special thanks to Hélène Deglaire and Zoé Glénard for the help).