

# Reef & Rainforest



## **The Seychelles Aldabra Cruise**

Small Group Departure

Accompanied by Local Naturalist Guides  
When In Aldabra

18 March 2009



## The Seychelles Aldabra Cruise 2009 Small Group Departure

This exclusive and unique catamaran cruise is a round-trip charter taking you and a small number of fellow passengers (maximum of six total) to one of the most exciting and least visited locations in the Indian Ocean – legendary Aldabra.

The isolated Aldabra atoll is far from tourist pathways and thus offers a unique experience: remoteness, pristine scenery, inimitable beauty and unique wildlife, both above and below the sea.

The Aldabra atoll is the largest raised atoll in the world and often described as the Galapagos of the Indian Ocean. It is approximately 1150km southwest of Mahe and is a UNESCO Natural World Heritage site of huge importance.

Aldabra is a natural paradise and home to some 100,000 giant tortoises. The vast lagoon is marked by bizarre, mushroom-shaped coral formations and is a nesting place for large numbers of seabirds. The waters around Aldabra are extremely rich in fish and apart from various types of sharks you might even be lucky enough to encounter whales or dugongs.

This fabulous atoll is exclusively reached by boat – there is no airstrip. **PLEASE NOTE:** The boat will cross stretches of open ocean, which can be rough and stormy, or prolonged periods. Participants are warned of the very real possibility of severe seasickness and, if joining the cruise, to take precautions against it, or not to join.





## The Seychelles Aldabra Cruise 2009

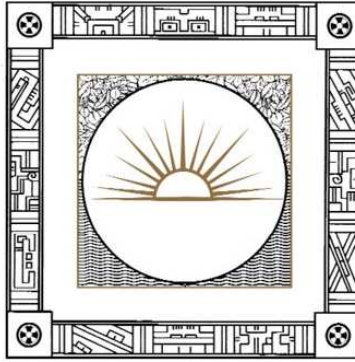
A Special Natural History Yacht Charter  
From Reef and Rainforest Tours

15 DAYS – ACCOMPANIED BY LOCAL NATURALIST GUIDES  
WHEN IN ALDABRA, 18<sup>TH</sup> MARCH to 01 APRIL, 2009

### ITINERARY IN BRIEF

- 18 March Fly into **MAHE** airport. Catch flight from Mahe to **DESROCHES** Island. Embark at Desroches and begin sailing to Aldabra.
- 19-22 March Cruising at sea with no stops. Various activities available (see itinerary).
- 23-27 March Five full days exploring **ALDABRA ATOLL**. Visit the research station – **PICARD ISLAND**. Guided walks to see flora and fauna and wildlife. Excursion include: Lagoon cruise to visit frigatebird colonies; snorkelling on shallow reef off research station using the boat's Zodiac RIB; Zodiac cruise and snorkeling in **WEST CHANNELS** and Zodiac cruise at **PASSE HOUAREAU**.
- 28-31 March Sail non-stop back to **DESROCHES**.
- 01 April Disembark and catch flight from **DESROCHES** to **MAHE**. Arrive Mahe.





## The Seychelles Aldabra Cruise, 2009

### DETAILED ITINERARY

18 March Arrive MAHE airport. Meet group at Mahe Domestic Terminal. Catch flight to DESROCHES ISLAND, in the Amirantes Group. Embark at Desroches and set sail in a south westerly direction for Aldabra Atoll.

Aldabra is the world's largest raised coral atoll (34x14.5km) and its geographical isolation; rough terrain and scarcity of fresh water have deterred large human populations from settling. Aldabra is a prime



example of a raised coral atoll and is significantly less disturbed than other atolls in the Indian Ocean and elsewhere in the world. Being mostly pristine, Aldabra is an outstanding example of ongoing ecological processes and offers a biological and ecological reference point for many species and habitats.

19-22 March Cruising at sea. The crew can show you how to sail and navigate. If you wish, you are welcome to try sailing yourself too. Or, you might want to try your luck catching some fish for dinner.



23-27 March Five full days to explore the fabulous Aldabra Atoll. In 1982, Aldabra gained World Heritage Status from UNESCO. The atoll is a refuge for many endangered and unique species and has been recognised as a biodiversity hotspot. It has one of the largest congregations of nesting green turtles in the Indian Ocean.



(2).../ THE SEYCHELLES ALDABRA CRUISE, 2009

It has around 100,000 giant tortoises, making it the world's largest population, and contains the world's second largest breeding populations of greater and lesser frigatebirds. It is also home to the last flightless bird in the Indian Ocean, the white-throated rail, and up to 12 land birds are endemic to species or sub-species level. Other animals on Aldabra include geckos, bats, birds, insects and land crabs, many of which are endemic to Aldabra.



The Aldabra vegetation is unusually rich and varied for an isolated atoll. Although dense *Pemphis* scrub covers large areas of the atoll and the lagoon is fringed with mangrove, the rest is covered by varied mixed scrub, with areas of grassland, scrubby wetland, coastal scrub and groves of taller shrubs and trees. Endemic species include the Aldabra lily and several species within 'tortoise turf', favoured as grazing by giant tortoises.

Excursions and guided walks include: A visit to the research station on PICARD ISLAND. Picard is home to a substantial population of giant tortoises, which are larger than those on other islands in the atoll, endemic flightless Aldabra rails and other land birds, robber crabs, endemic plants and upside-down jellyfish. Other attractions include the research station, the old settlement, the derelict cemetery and the impressive beach with abundant black tip reef sharks along the shore.

The excursion includes a walk on well-maintained existing trails to the Old Settlement, to La Gigi (facing the lagoon) and a short section of the 'back path'. Fundraising material can be purchased at the station. It is also possible to walk to Anse Var and Bassin Lebine.



A lagoon cruise to visit the frigatebird colonies. The main channel and Camp Frigate area are spectacular. The visit is timed so that the lagoon is entered on the rising tide and exited on the falling tide.

(3).../ THE SEYCHELLES ALDABRA CRUISE, 2009

Large ray and shark populations exist in the lagoon. The variety and abundance of sea life is unique here. Aldabra is also a turtle mecca, with up to 2100 turtles laying eggs on beaches annually. The lagoon is also a home to rare dugongs, a species similar to manatees and said to have given rise to the mermaid legend.



Take a snorkelling trip on shallow reef off the research station. This is best done at low tide using the boat's Zodiac RIB. Aldabra consists of mainly fossilised coral called champignon, eroded to form a brittle and dangerously sharp rock. The reefs and coral habitats here are in pristine condition.

A Zodiac cruise excursion and snorkelling in the WEST CHANNELS. The West Channels are scenic, with good views of the lagoon, red and white-tailed tropicbirds and excellent snorkelling. This can be done at high tide only. Entry is through channels, then between mangroves and exit out through channels.



A Zodiac cruise to PASSE HOUAREAU. Enter the lagoon shortly before low water and proceed along main channel for 1km as far as the sandbars. This is a good site for snorkelling during low tide. Cut engines and drift back towards the pass.

28-31 March Sail back to DESROCHES.

01 April Disembark at DESROCHES. Catch a flight back to MAHE.



(4).../ THE SEYCHELLES ALDABRA CRUISE, 2009

### **THE SEYCHELLES ALDABRA CRUISE 2009**

*Adult Price*  
£5,196

*Single Supplement*  
£2,598\*

All prices quoted per person in Pounds Sterling and include tax.

\*Persons travelling alone have the option of sharing a cabin with a fellow single passenger (subject to mutual agreement).

Minimum group size is 4, maximum 6.

NB: The price relates to the domestic return flights ex-Mahe and the cruise only and DOES NOT include international flights nor any hotel nights and other services on Mahe, Desroches, or any other islands in the Seychelles. Should you wish us to book international flights and make reservations for hotels and services either end of the cruise, please call 01803 866965 for a quotation.

NB: The Air Seychelles flight schedules and fares for March/April 2009 are not known at the time of writing. As soon as they are published, we shall be able to book your flights and organise any pre or post-cruise extensions within the Seychelles for you.

NB: The above itinerary might vary according to weather/wind conditions.

NB: The price is based on current fuel costs, Aldabra landing fees, exchange rates and other costs which may rise; in which case, the price may need to be amended.

#### **Services included in the package:**

- Catamaran cruise
- Crew service
- Excursions and guided walks
- Accommodation in twin cabin with private bathroom, bed linen and hand towels
- Full board with drinking water/tea/coffee
- Use of sea kayaks
- Use of the on-board library (Books, DVDs, music)
- Transfers Desroches airport to boat and return
- Domestic flights Mahe-Desroches-Mahe
- Daily landing fees on Aldabra
- GST (Goods and Services Taxes)

#### **Yacht Specification:**

The yacht is a Bahia 46 catamaran, 14m long and 7.3m wide, with more than 100m square living and relaxing space available over two decks.

#### **On-board Equipment:**

Satellite phone  
Power generator with 220v sockets  
Dinghy with 60 HP engine  
Water treatment facility  
Safety and first aid equipment  
Snorkelling equipment  
Two sea kayaks  
On-board library (books, DVDs, music)

(5).../ THE SEYCHELLES ALDABRA CRUISE, 2009

**Seasickness:** The cruise is of an explorative type, sailing long distances in open ocean and thus not recommended for people who get seasick.

Please call 01803 866965 if you have any queries, would like to secure your place on the tour, and/or if you would like to extend the tour to include other locations.



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## Reef and Rainforest Tours Ltd.

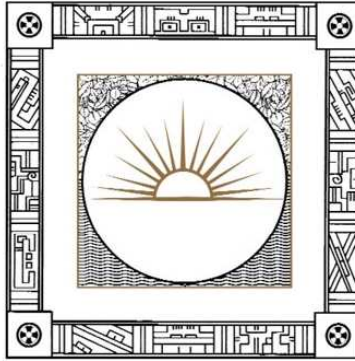
A7 Dart Marine Park, Steamer Quay, Totnes, Devon, TQ9 5AL, UK

Tel: ++ 44 (0)1803 866965 Fax: ++ 44 (0)1803 865916

Websites: [www.reefandrainforest.co.uk](http://www.reefandrainforest.co.uk) [www.familytours.co.uk](http://www.familytours.co.uk)

E-mail: [mail@reefandrainforest.co.uk](mailto:mail@reefandrainforest.co.uk)





## The Seychelles Aldabra Cruise, 2009

### BACKGROUND INFORMATION

Aldabra was designated a World Heritage Site by UNESCO in 1982 as a prime example of a raised coral atoll and is significantly less disturbed than most other atolls in the Indian Ocean and elsewhere in the world.

The site is classed under category Ia (Strict Nature Reserve) of the IUCN Management Category and designated as a Natural World Heritage Site for fulfilling the criteria ii, iii and iv.

The status of Strict Nature Reserve of Aldabra has been associated with the fact that the atoll fits the following criteria:

- It is an outstanding example representing significant on-going ecological and biological processes
- Aldabra contains superlative natural phenomena or areas of exceptional natural beauty
- Aldabra contains the most significant natural habitats for in-situ conservation of biological diversity

Aldabra's unique ecosystems and species make it ecologically and scientifically valuable. Aldabra is the largest raised coral atoll on Earth and is significantly less disturbed than most other atolls in the Indian Ocean and elsewhere in the world. Aldabra is a refuge for many endangered species. These include the giant tortoise (*Dipsochelys dussumieri*=*Geochelone gigantea*); one of the largest congregations of nesting green turtles (*Chelonia mydas*) in the Indian Ocean; the world's second largest breeding population of greater and lesser frigatebirds (*Fregata minor* and *Fregata ariel*); the last flightless bird species in the Indian Ocean - the white-throated flightless rail (*Dryolimnas cuvieri aldabranus*); and a number of endemic taxa of plants and animals.

Aldabra atoll is 400 km from the nearest mainland. There is little soil, practically no fresh water, no guano, no phosphate, no deep-water anchorage. The jagged coral can quickly tear shoes, and feet, to ribbons. The atoll is an inhospitable and even dangerous place: and therein lies its value to science. Over the centuries, Aldabra has proved unattractive to sailors, fishermen, settlers and commercial interests. No other Indian Ocean island - and few islands anywhere in the world - has been spared human interference for so long.

## (2).../ BACKGROUND INFORMATION

Aldabra harbours a colony of 100,000 giant tortoises, endemic birds, insects, plants, coral reefs and fish that have survived as part of a unique ecological system, undistorted by Man. This system was threatened with destruction in 1966, when Aldabra was still part of the British Indian Ocean Territory. Plans to build an airstrip for use by the British and American military were only abandoned after worldwide protests from conservation and research organisations, led in Great Britain by the Royal Society and in the United States by the Smithsonian Institution. As soon as the atoll came under threat, the Royal Society mounted a systematic programme of research in Aldabra and this continued when the atoll became part of the independent Republic of the Seychelles in 1976.

***"An ideal location for the scientific study of evolutionary processes in a relatively closed biotic environment."***

U.S. NATIONAL ACADEMY OF SCIENCES, 1967

The preservation of Aldabra's unique ecosystem depends on international support. The atoll and its research station are managed by the Seychelles Islands Foundation, a public trust established to safeguard the treasures of Aldabra and promote its use purely for research and education.

### **The Policy**

Aldabra is a strict nature reserve and visitors to the atoll must receive authorisation from the SIF. The SIF's policy on tourism to Aldabra is to increase the revenue raised in order to support the protection and conservation of the atoll through limited and strictly controlled tourism with a focus on nature tourism and education. This is yet another good example of "Preservation Through Visitation", Reef and Rainforest's company ethos.

Tourism activities are limited to the following operations:

- Small to medium size cruise ship tourism.
- Live-aboard charter boats and private yachts.
- Live-aboard dive boats.
- Land-based educational and scientific visits limited to 12 persons at any one time.

Access by a visitor to various parts of Aldabra is limited to the areas defined in the zoning policy and is conducted in a sustainable manner with impact being continually assessed.

Visitors are not allowed to collect shells or to damage or interfere with the plants and animals. No biological or geological specimen can be collected by any visitor. Visitors are also required to abide by strict sanitary measures to avoid introducing alien plant seeds.

All visitors to Aldabra must at all times be accompanied by an Aldabra staff member. It is not permitted to wander about unsupervised.

### (3).../ BACKGROUND INFORMATION

#### **TOURISM REGULATIONS FOR ALDABRA**

1. All vessels must have clearance in writing from SIF head office and the Seychelles Port Authority before visiting Aldabra. Vessels approaching Aldabra must identify themselves and within one kilometre of the shore will be answerable to the Island Management of Aldabra. The vessel should select its anchorage or mooring within view of the research station and do so in an environmentally responsible way. Vessels should use mooring buoys if these are available. Access to the lagoon and landing on any part of the atoll other than in designated tourism areas is prohibited.
2. Visiting vessels must remove all rubbish occasioned by their visit.
3. All visitors must be accompanied by SIF staff at all times, except within the station grounds. Tour operator guides who are familiar with Aldabra and SIF policies, and have been vetted by SIF, may be allowed to lead small groups on permitted trails on Picard.
4. Visitors are to remain on designated trails or when in open areas, within the limits set by their guide.
5. Visitors, particularly film crews, must comply with their guide's instructions regarding approaches to and viewing of animals and plants.
6. Aldabra is a strict nature reserve. It is prohibited to remove shells or pieces of coral from any area visited. No biological or geological specimen, alive or dead, may be collected by any visitor.
7. Fishing is not permitted within one kilometre from the shoreline. All boat operators should ensure that this restriction is conveyed to all their crew.
8. Accidental introductions of alien species are a major problem in wilderness areas like Aldabra. Passengers and crew of cruise ships and charter boats are asked to assist in the prevention of this problem by always ensuring that they wear freshly laundered trousers and socks, and that their shoes have clean treads.
9. Diving and snorkelling groups shall use only those areas designated and shall be in groups of five or less per guide, except when snorkelling along the reef off the research station where the expedition leader should decide on the safe number per guide.
10. Standing on or handling coral or any other marine life is strictly prohibited.
11. All expedition leaders must conduct a short course for their clients on low impact snorkelling before they enter Aldabra's coral reefs, marine and lagoon system.
12. Boats and zodiacs entering the lagoon to visit the frigatebird colonies must stay in close contact with the SIF lead boat. Zodiac drivers must at all times endeavour to keep outboard engine noise to a minimum when within the bird colonies. Mufflers should be used if possible. No-one is allowed to leave the boat.
13. It is prohibited to approach closer than ten metres to birds roosting or nesting.
14. Giant tortoises should not be stroked, patted or otherwise disturbed except at the research station where one or two individual tortoises are used to humans. It is strictly forbidden to sit on or ride any tortoise.

#### (4).../ BACKGROUND INFORMATION

### **Long Term Monitoring Programmes**

#### **Rainfall monitoring**

Records of rainfall are extremely important for all aspects of science and conservation on Aldabra. Complete rainfall records can help explain population cycles, animal behavioural patterns and many other dynamics that occur on Aldabra. Nearly all aspects of Aldabra are somehow affected by the amount of precipitation, making the regular recording of rain gauge readings a top monitoring priority.

**Tortoise monitoring** The status of the tortoise monitoring programme was reviewed during the tortoise population study conducted by ERGO (Environmental Research Group Oxford) at the end of 1997. The review concluded that the basic method of transect sampling is the most appropriate means of monitoring the various sub-populations of tortoise on Aldabra.

A total of twelve transects are monitored on a monthly basis. Three of these transects were established in the late 1970s in the Cinq Cases region, and the other nine were established in 1995 at various sites on Grande Terre, Malabar and Picard.

The primary objective of the tortoise monitoring programme is to provide information required for better understanding, management and conservation of Aldabra's giant tortoise population. Regular assessments of the tortoise population, including the sub-populations on Grande Terre, Malabar and Picard, together with maintenance of long-term records and a computer database, will allow for identification and examination of major changes and trends in population size and structure. This in turn allows periodic review of management implications and options.

#### **Turtle monitoring**

The nesting of Green Turtles (*Chelonia mydas*) was monitored sporadically on Aldabra between 1968 and 1981, and more consistently using standard methodologies for morning beach surveys and nightly turtle tagging since 1981 (Mortimer 1988). Studies of growth rates and migrations in foraging populations of immature hawksbill turtles (*Eretmochelys imbricata*) have been ongoing since 1987.



Three types of turtle monitoring are conducted on Aldabra: a) morning beach surveys to count turtle tracks; b) nightly tagging of turtles; and c) tagging and measuring of immature foraging populations within the lagoon. Beach surveys give us an overview of various aspects of nesting activity on Aldabra including: its spatial distribution around the atoll; the seasonality of nesting within the calendar year; and how nesting activity fluctuates from one year to another. With these data we can better understand the status of the nesting population - whether it is increasing, decreasing or stable.

## (5).../ BACKGROUND INFORMATION

By tagging nesting females we learn about aspects of turtle behaviour that include: nesting site fidelity; nesting frequency within a nesting season (how many clutches laid and how many days between nestings); how many years separate the nesting seasons of individual turtles; and locations of distant foraging grounds for the population. International tag returns provide an index of the rates at which turtles are slaughtered at these foraging grounds.

Monitoring the foraging populations of immature turtles in the lagoon reveals information on the size and distribution of the population, growth rates, and migrations.

### **Coccid monitoring**

The coccid (mealy bug), *Icerya seychellarum*, was introduced accidentally sometime in the 1960s and impacted the vegetation extensively, threatening the survival of some woody species. Surveys and research were conducted during the late 1970s by Newbery and Hill, and a monitoring programme was set up in 1980. In the late 1980s a coccinellid (ladybird) *Rodolia chermesina* was introduced as a biological control agent.

The main purpose of the coccid monitoring program has been to assess the level of infestation of *Icerya* on various woody plant species and to reveal any coccid population fluctuations which might occur. It also aimed to assess the effectiveness of *Rodolia* as a biological control agent on Aldabra.

These assessments were needed for management purposes. Scientifically it has also been an unusual study of an insect pest invasion in a relatively undisturbed environment where other factors are also being monitored. The ongoing has been curtailed and the accumulated data now require full analysis.

### **White-throated rail monitoring**

The white-throated rail (*Dryolimnas cuvieri aldabranus*) is the last “flightless” avian species in the Indian Ocean. Populations currently occur on Malabar and Polymnie islands, as well as a newly introduced population on Picard. In 1995 a monitoring programme was set up by Augeri and Pierce to census some of the main sub-populations. The collected data formed a useful baseline assessment of the rail population on Aldabra prior to a full scale scientific study of the rail which resulted in the successful reintroduction of the bird on Picard.



### **Vegetation monitoring**

The monitoring of vegetation is important because so many terrestrial organisms depend on plants and their productivity, either directly or indirectly. “The dominant factors explaining the species composition of Aldabra’s vegetation are the degree of influence from salty ground water and the degree of shelter from the salt laden south-east trade winds, which blow for a significant proportion of the year” (ERGO 1997). Vegetation transects were established by Gibson and Phillipson (1983) in the Cinq Cases area, but they represent only a small sub-set of the mixed scrub vegetation in that part of the atoll. Some of these transects were re-sampled in 1988 by Scoones et al. (1989) and again in 1997 by the ERGO group (1997).

## (6).../ BACKGROUND INFORMATION

Although the 1983 field studies were carried out in the rainy season, the 1988 and 1997 surveys were undertaken in the dry season, when many ground flora species are not detectable and some woody species lose their leaves and are difficult to identify.

There is a need, therefore, to repeat the four transects which were surveyed in 1997 during the rainy season. Vegetation monitoring generally only needs to be undertaken every five to ten years, preferably in the wet season.

### **Subsistence fishing monitoring**

The purpose of the fish monitoring programme is to obtain information on the types, numbers and weight of fish caught around Aldabra for consumption purposes. Petrol consumption, the number of people fishing and the number of hours spent fishing are recorded so that an indication of "fishing effort" can be gained for different sites and different months of the year.

The results can also be analysed to reveal spatial and temporal trends in, for example, relative densities and size ranges of different edible fish species. Such information can be used for management purposes (for example, reducing the pressure on certain target species) as well as providing useful information for the scientific understanding of edible fish populations.



### **Beach erosion and accretion**

A new programme was established by Augeri and Pierce in 1995 to quantify beach loss and accretion. The study began by focusing primarily on key turtle nesting beaches to help researchers quantify any correlation or causal relationships with seasonal and long-term shifts in nesting activity around the atoll.

In addition to quantitative measurements one of the best methods for evaluating and monitoring beach loss is through photographic benchmarks.

The main purpose of monitoring of beach erosion and accretion is:

1. To help quantify any long-term changes in coastal zone habitats.
2. To quantify beach dynamics relative to critical turtle nesting habitat.
3. Photographic benchmarks will provide reliable references for both management actions and scientific studies.



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Reef and Rainforest Tours Ltd.  
A7 Dart Marine Park, Steamer Quay, Totnes, Devon, TQ9 5AL, UK  
Tel: ++ 44 (0)1803 866965 Fax: ++ 44 (0)1803 865916  
Websites: [www.reefandrainforest.co.uk](http://www.reefandrainforest.co.uk) [www.familytours.co.uk](http://www.familytours.co.uk)  
E-mail: [mail@reefandrainforest.co.uk](mailto:mail@reefandrainforest.co.uk)

