



CORAL COMMUNITIES IN THE SEYCHELLES

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Expedition Briefing 2012

EVERYTHING YOU NEED TO KNOW BEFORE YOU GO



Image © Dr. David Smith

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Timeline and Checklist

In preparing for your upcoming Earthwatch expedition, please ensure that you:

Immediately

- Read this Expedition Briefing and all enclosed materials thoroughly.
- Book an appointment with a doctor; you will need him or her to sign the Health section of your Earthwatch Participation Form.
- Make sure you understand and agree to Earthwatch policies and participant responsibilities.

At least 90 days prior to your expedition start date

Complete and return your volunteer forms. **Below are the specific forms required for this expedition:**

- Earthwatch Participation Form for Adults, including Water-Based Projects section
- Travel Form

European volunteers can download forms on: earthwatch.org/europe/volunteerforms

US/North American volunteers can download forms at: earthwatch.org/volunteerforms

Australian volunteers can download forms on: earthwatch.org/australia/expeditions/volunteer_forms/

Japanese volunteers can download forms on: earthwatch.jp/getinvolved/condition/formdownload-i.html

- Pay the final balance on your expedition (if applicable)
- Finalize your travel plans or work with Earthwatch to arrange travel details (see the *Rendezvous* section).
- If you plan to purchase additional travel insurance, note that some policies require purchase when your expedition is booked (see the *Insurance* section for more information).
- If traveling internationally, make sure your passport is current and obtain a visa for your destination country, if necessary (see the *Passports and Visas* section for more details).
- Make sure you have all the necessary vaccinations for your project site (see the *Health Information* section).
- Purchase a guide book for your destination country.
- Bring your level of fitness up to the standards required (see the *Project Conditions* section).

At least 60 days prior to your expedition start date

- Review the packing list to make sure you have all the clothing and any special equipment needed.
- Obtain any necessary prescription medications that will be needed for your travels

Up to 30 days before you leave for the expedition

- Read any required reading or websites recommended by the Earthwatch scientist(s) for your expedition.
- Make sure you have enough personal funds for your expedition (see the *Travel Planning* section).
- Leave the Earthwatch emergency contact number with a friend or relative (see the *Emergency Contacts* section).
- Leave a copy of your passport, visas and airline tickets with a friend or relative.
- Confirm your travel arrangements.

Note: If you have signed up for an expedition within 90 days of the start date, you must return your fully completed volunteer forms as soon as possible.

Coral Communities in the Seychelles

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General Information

Project title	Coral Communities in the Seychelles
Earthwatch scientists	David J. Smith , Director of the Coral Reef Research Unit, University of Essex David Suggett , Assistant Director of the Coral Reef Research Unit, University of Essex
Research site	Curieuse Marine Park, Curieuse Island, Seychelles
Rendezvous Location & Time	This information is available in the printed version of the briefing only.
Expedition Dates	Team 3: May 2, 2012 – May 13, 2012
Expedition length:	12 days
Team size max:	6 participants
Minimum age of participation:	18 years of age*
*Note: It may be possible for 16- and 17-year-olds to participate on standard teams if accompanied by a parent or guardian. Contact Earthwatch for more information and see <i>Volunteers Under 18 Years of Age</i> in the <i>Passports and Visas</i> section for traveling advice for minors.	

Emergency Contacts

Emergency contact number at Earthwatch in the UK:

+44 (0) 7900-895-752

A duty officer is available 24 hours a day, seven days a week to assist you. If you reach voicemail, state that you have an emergency communication and leave a clear message with the name of the field program, your name, the location from which you are calling, and, if possible, a phone number where you can be reached. An Earthwatch staff person will respond to your call within one hour.

You may also call Earthwatch in the US:

+1 (978) 461-0081

After business hours, leave your message with our live answering service who will contact an Earthwatch staff person who will respond to your call.

Medical and Security Assistance Helpline Numbers

When calling any of the helplines, please mention Earthwatch and policy reference number 560020011200.

CEGA Emergency Medical & Travel Assistance:

+44 (0)20 3059 8770

You may call this number collect or reverse charges if necessary in a medical emergency.

CEGA Non-Emergency Medical & Travel Advice (e.g. visa and vaccination requirements):

+44 (0)20 3059 8770

Henderson Risk Security Assistance and Advice:

+44 (0)20 3059 8772

axisenquiries@hendersonrisk.com



EXPEDITION UPDATE:
Coral Communities in the Seychelles
Team 3

April 26, 2012

Dear Earthwatch Volunteer,

We hope you are looking forward to your upcoming expedition, and would like to let you know that filmmaker Chris Scarffe will join you for three days. He has been commissioned by the Mitsubishi Corporation, which has provided financial support for the research on this project for a number of years, and he will be joined by two additional Mitsubishi visitors. His footage will be used to create a film profiling the impacts of the Earthwatch-supported research in the Seychelles, and may also become part of internal and external communications to Earthwatch and Mitsubishi audiences.

Chris will record footage of the research tasks, including underwater research, as well as interviews with team participants and researchers. If you do not wish to be included in the filming, please contact Earthwatch and we will, of course, respect your wishes.

Please rest assured that we will ensure that disruption to your experience and to the integrity of the research is kept to an absolute minimum. An additional Earthwatch staff member will be present to facilitate the videographer's stay.

If you have any questions or concerns, you can get in touch with our office or Earthwatch Media and Communications Manager Jo-Anne Croft at jcroft@earthwatch.org.uk.

Have a wonderful time on your expedition!

Best regards,

Earthwatch staff

If you have questions as you prepare for your expedition, contact the appropriate Earthwatch office:

Australia Office

T: +61 (0) 3-9682-6828

earth@earthwatch.org

Japan Office

T: +81 (0) 3-3511-3360

info@earthwatch.jp

UK Office

T: +44 (0) 1865-318-831

info@earthwatch.org.uk

US Office

T: +1 800-776-0188

info@earthwatch.org



Dear Earthwatcher,

Welcome to Earthwatch! We greatly appreciate your decision to contribute to hands-on environmental science and conservation. As an Earthwatch volunteer, you have the opportunity to create positive change. Each year we connect thousands of people just like you with research projects—approximately 65 projects in more than 35 countries—where they can participate in the fieldwork necessary to understand and help an array of species, habitats and cultures. These projects focus on: **climate change, cultural heritage, ecosystem services and oceans.**

We are committed to caring for the safety of all those involved in our activities anywhere in the world. Although risk is an inherent part of the environments in which we work, through careful risk management and diligent planning we believe that all participants can have educational and inspirational Earthwatch experiences. We've been providing volunteer field experiences **for 40 years**, so you're in good hands.

It is essential that you carefully read your Expedition Briefing and fully complete the volunteer forms so that you are prepared. Your Expedition Briefing includes important information such as instructions for reaching the rendezvous point, what risks are present on the research project and how to avoid them, what to pack, what immunizations you need, how to physically prepare for your expedition, and more. It also explains the research being conducted on the project, why it's important, and what role you'll play as an Earthwatch volunteer.

Well-prepared volunteers are better able to enjoy the unique and exciting experiences that an Earthwatch expedition offers and will be more helpful to the scientists' important work. Open-mindedness, the ability to work on a team, and a desire to learn are all keys to a successful and enjoyable Earthwatch experience. We hope this expedition will inspire you to get more involved in conservation and sustainable development priorities—not just out in the field but also when you return home. We encourage you to share your experiences with others, and to transfer your skills and enthusiasm to environmental conservation efforts in your workplace, community and home.

If you have questions as you prepare for your expedition, contact your Earthwatch office. Thank you for your support, and enjoy your expedition!

Sincerely,

A handwritten signature in black ink, appearing to read "Ed Wilson". The signature is fluid and cursive, with a large, sweeping "S" at the end.

Ed Wilson
President and CEO



Dear Earthwatch Team Members,

Greetings from the golden shores of Curieuse Island! Welcome to a spectacular place. Most of the land animals here occur nowhere else but the Seychelles, and the sea life is little studied—few marine scientists have been here.

In 2012, we will continue with our efforts to map all the major coral habitats within the marine park, assessing their biological richness and uniqueness, and carry out surveys at key monitoring stations that were first established during 2009. Annual monitoring of these sites will enable us to calculate the rates of change in habitat quality and, importantly, what factors influence these rates of change. The Seychelles have previously been impacted by environmental anomalies that resulted in elevated seawater temperatures, which caused mass corals mortality. Consequently, field studies will be combined with aquarium experiments back at the field base, where we will examine how and why some corals survive elevated temperatures whilst others appear to be much more vulnerable. Therefore, throughout your stay, you will encounter many different aspects of coral reef biology: you will learn how to identify animals, carry out in-water surveys, construct and maintain coral reef aquaria, and use scientific equipment to assess the health of reef building corals. You will have a busy but very rewarding time, and will need to be fit and healthy to keep up with all the work required. Through this expedition, you will help to increase our knowledge of how tropical reef systems will be affected by future anomalies and climate change whilst also having the opportunity to carry out primary research in the spectacular marine environments of the Seychelles.

We look forward to greeting you in Curieuse.

Sincerely,

Dr. David J. Smith and Dr. David Suggett

The Research

Coral Communities in the Seychelles

Tropical coral reef systems are one of the most biodiverse ecosystems in the world, and are heavily exploited for food and income generation. They also provide other key ecosystem services, such as coastal protection, and are culturally important. Maintenance of reef health is essential for the welfare of hundreds of millions of people, but despite this well-known benefit, reefs continue to be degraded through unsustainable exploitation, reduced coastal water quality, and land-use change. These threats add to the potentially devastating impacts of rapid climate change, which could alter the physical and biological structure of reefs to a point where they are no longer able to maintain service provision. Such changes to structure will have devastating effects on tropical marine biodiversity and on the many of millions of local dependents.

The overriding goal of this research program is, therefore, to provide managers and policymakers with the key information they need to mitigate these combined threats. The research that you will be a part of will identify key environmental drivers of reef degradation, which species are most likely to be negatively affected, and how changes to habitat quality will affect ecosystem biodiversity. The research focuses on reef-building corals, as these are the key ecosystem architects and their health and productivity largely dictate the overall biodiversity of a reef system. However, we will also include detailed surveys of coral reef fish so that the link between the characteristics of the fundamental reef builders can be directly related to key indicators of overall biodiversity and system health.

As an Earthwatch volunteer, you will help us research how coral species respond to environmental stress, focusing mostly on climate events and, in particular, why some coral species, and therefore ecosystem architects, are able to tolerate stress events while others are much more vulnerable. Our previous research has indicated that there is a stark difference in tolerance levels, although the tolerance of the most sensitive species may be enhanced under certain environmental growth conditions (so-called refuge environments). The research, therefore has clear application, and will enable us to start to predict the likely consequences of climate change, and, most importantly, mechanisms of direct management that may help protect corals of the future.

Our approach is unique to reef community research conducted in the Seychelles; previous investigations have provided insights of the reef response to environmental change but have largely relied on observational and sporadic analysis of the reef community, whereas we will use study-based approaches and non-invasive experimentation, as well as detailed physiological analysis. Your contribution to this project is very important, as limited knowledge exists as to the nature and underlying mechanisms with which Seychelles' reef communities are affected by climate change and other stresses. Most importantly, however, is that decisions made about management policy are based on resolute and robust data, including baseline surveys, rates of change in key reef based variables, and parameters (e.g. performance criteria), and on knowledge of what factors influence the change. This research is crucial because management decisions based on solid research, as well as an understanding of the socio-economic complexities, have the greatest chance of success.

In 2012, we will place a great emphasis on identification of high-priority areas for monitoring and management, either because they are very rich, contain rare species, are actively recovering from impact, or could act as ecological refuge environments buffering vulnerable species from future climatic events. The aim is to carry out detailed surveys of monitoring stations that were first established during 2009 and as yet have not been re-surveyed. Data obtained from these surveys will allow the research team to evaluate the current health and richness of the reef and reef-associated habitats, to determine rates of change in the system, and to identify possible drivers of change and protection.

SCUBA and snorkeling-based surveys will be our major tools to facilitate coral community surveys. Underwater video transects will be used to obtain data concerning the community and population structure of corals and the associated fish diversity. As our global climate is subjected to increasing change, understanding the environmental factors that drive growth and success of coral species present within the coral community is of key interest. Non-invasive, cutting-edge research techniques will also be used to assess coral eco-physiology, particularly the ability of corals to absorb and utilize light for photosynthesis (pulse amplitude modulation fluorometry) and the proportion of photosynthesis that contributes to coral growth (oxygen drift sensing). Data obtained from the field studies will inform aquarium based studies back at the field base. Here corals will be subjected to elevated temperatures and their physiological response recorded. A combination of aquarium experiments and the intensive field surveys will enable us to evaluate the vulnerability of key coral species to environment stress (e.g. climate change), and will help us identify what growth conditions enhance coral stress tolerance.

As an Earthwatch volunteer, you will be trained over the course of several days to help with coral videography, coral reef monitoring, coral reef fish surveys, and coral aquarium studies. You will be immersed in all aspects of the research and will be instrumental in generating material that we can use to engage the Seychelles government, the local community, and conservation groups to increase understanding of the status of reefs of the region, the combination of factors that influence reef biodiversity, and the levels of vulnerability of reef building species to climate change. Such detailed research is required if we are to ensure that future management of such important ecosystems is most appropriate and designed using the latest and most rigorous scientific evidence.

Research Objectives

1. ***To determine the key characteristics of reef and reef-associated communities within Curieuse Marine Park (CMP).***
 - a. Provide and continue to provide a baseline for patterns of richness of Curieuse Marine Park coral communities.
 - b. Survey coral monitoring stations established during 2009 and assess rates of change and coral growth.
 - c. Deploy long-term temperature data loggers, and use information collected to identify key scales of temporal variability of temperature experienced by reef systems for interpretation of the likely reef response to climate change scenarios.

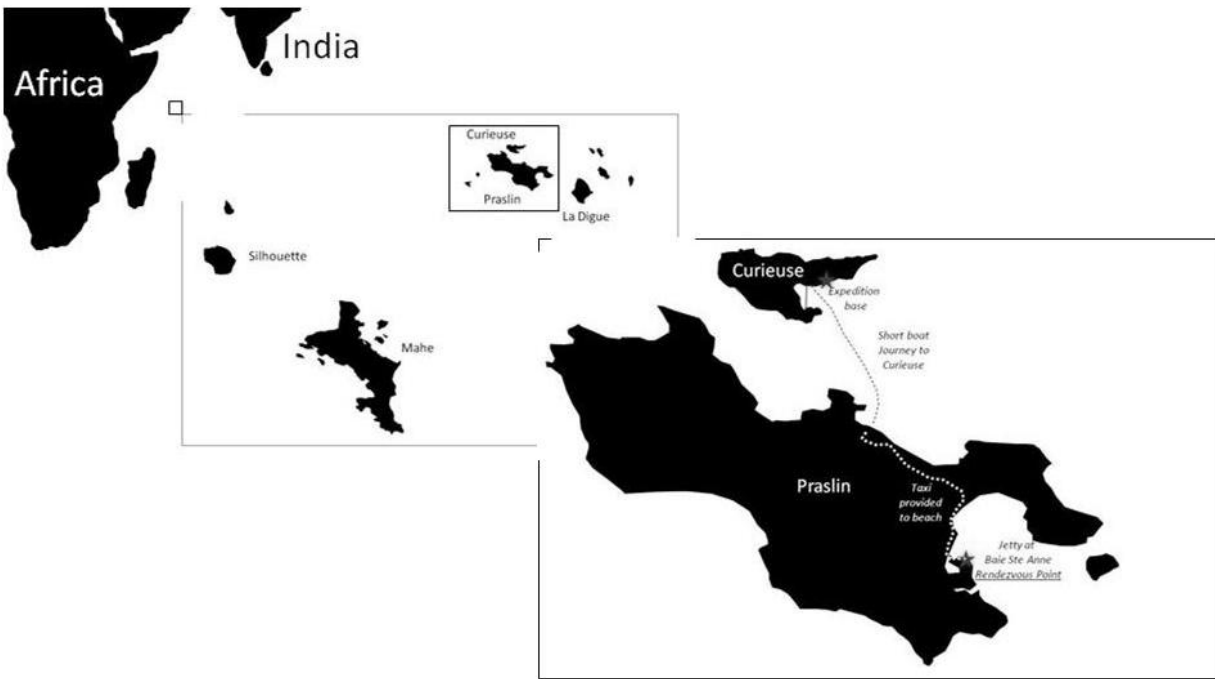
2. ***To determine how environmental conditions regulate the growth and viability of hard coral species.***
 - a. Examine the growth rate of key coral taxa existing under the range of environmental conditions that characterize CMP.
 - b. Examine the size frequency distribution of key coral species across a range of environments that characterize CMP and use size and growth rate data to estimate population age structure of different coral species. Examine the stress response of key coral species to elevated temperatures using aquarium experiments.
 - c. Examine how environmental growth conditions (e.g. ambient light conditions) influence the vulnerability of corals to elevated temperatures.
 - d. Identify possible refuge environments in which sensitive coral species are buffered or are otherwise better equipped to deal with environmental anomalies (e.g. elevated temperature events).

- e. Fully characterize the metabolism of corals existing in low-light environments (termed marginal systems) as compared to high-light environments.
- 3. Objective 3: To determine the nature of the association between habitat quality and key faunal taxa, focusing on fish, mollusks, and decapod crustaceans**
- a. Identify the nature of the association that links habitat quality to the abundance of key taxa (reef fish) and undertake ethological studies to examine the behavioural responses of cosmopolitan fish species as compared to species with a more restricted distribution.
 - b. Identify the key physical and biological drivers of change in fish community structure and compare to ethological studies to allude to the effects of further habitat degradation on the diversity productivity of coral reef fish.
- 4. Objective 5: To ensure that data obtained is placed within a management framework and is accessible by local user groups and authorities to maximise the benefit for local conservation**
- a. To undertake a pilot study to assess the possibility of implementing a socioeconomic-centered research study aimed at identifying key stakeholders, levels of ecological knowledge and environmental awareness, and dependency on marine resources, while also identifying possible areas of conflict between user groups and conservation managers.
 - b. Generate material to engage the Seychelles government, local community and conservation groups in understanding the importance of the coastal habitats of the Seychelles.

Research Area

Located approximately 1,600 kilometers east of the mainland of Africa, the Seychelles Islands amount to 455 square kilometers scattered over the Indian Ocean. There are about 115 islands in total, the central islands being granite and the outlying islands coral atolls. The Seychelles archipelago is just south of the equator in the west Indian Ocean.

The majority of people in the Seychelles are of African and European decent. Approximately 90 percent of the population of the Seychelles is Roman Catholic.



Curieuse Island

Curieuse is the fifth-largest granitic island of the Seychelles, and was discovered by the French mariner Lazare Picault in 1744. This tranquil island is best known in history as a place of confinement for leprosy sufferers until 1965, and the Doctor's House near Anse St. Jose, now a visitor centre, is a relic of these times.

The island and its surrounding waters form one of six national marine parks. The marine park boundaries extend 200 meters offshore, and as far as the neighboring island of Praslin to the west. The dominant coral formations are veneering, but there is a carbonaceous reef structure on the south-west side of the island, as well as an extensive mangrove stand in Baie Laraie. Despite its status as a National Marine Park, there have been a very limited number of studies carried out on the coral community, intertidal environment, and mangrove habitats of Curieuse Island.

Although a relatively small island (2.86 square kilometers), Curieuse hosts an array of habitats, including grasslands grazed by hundreds of giant tortoises, tall lush woodlands, coco-de-mer palms and takamaka trees,



scrubland, lowland freshwater marshes, and mangroves. Erosion and soil impoverishment on the exposed and sun-beaten upper slopes has left craggy boulders covered only with lichens. The first giant Aldabra tortoises were sent to the island on the advice of Charles Darwin, and they thrive on this sanctuary along with green gecko, Seychelles skink, hawksbill turtle, lizards, crabs, insect life, and many species of bird, including whimbrel, heron, and black parrot. Near the project accommodation, there is a tortoise nursery which is part of the conservation program, and several marked nature trails across the island will enable volunteers to explore the island during recreational days.

Research Achievements

The Earthwatch scientists on this project have worked at many locations around the Indian Ocean and have published high-quality work on seagrass beds, mangrove systems, and coral reefs. They have direct experience in identification and the ecological study of many of the major tropical coastal taxa, recognized expertise in the physiology of marine organisms, and experience in engaging stakeholders in conservation research, management, and policy. The breadth of experience in the team will facilitate the broad aims of this project to provide detailed knowledge of coral communities of the Curieuse Marine Park, how key species are likely to respond to environmental anomalies, and how best to manage the combined effects of climate change and other direct anthropogenic stressors.

Research Beneficiaries

Tropical coastal research communities engaged with coral physiology studies, climate change experiments, and tropical conservation programs will benefit from the project. Knowledge of the state of the least anthropogenically disturbed Seychelles coastal environments is important, as they are the bridge between East African reefs and those of Southeast Asia. Understanding coastal richness, diversity, and recruitment at such a location gives crucial input into how more impoverished offshore archipelagos withstand impacts on various scales. Our results will be reported in peer-reviewed international publications and at scientific conferences.

The Ministry of Environment Seychelles and the Seychelles National Park Authority (SNPA) will benefit from the detailed surveys of one of the least-studied of the granitic inner islands, and the resulting recommendations of high conservation priority areas.

The local and regional educational community will be exposed to our findings and methodology, increasing knowledge of how this coastal system is structured and how it fits into what has been more widely described, for example their response to climatic variability.

Tourism is very important to the Seychelles, and care has been taken to run it in ecologically responsible manner, as natural attractions are what many of the tourists are coming to see. A detailed study of the marine biology of Curieuse will enable informed current and future management decisions about the use and sustainability of different areas of the shoreline and shallow coast. The public and eco-tourists in particular are increasingly aware of the importance of coral reefs—information we can provide from Curieuse to put national policies into perspective. Our results can potentially help with fishing policies and advise on the impact of certain fisheries and tourist activities.

Why field research?

As an Earthwatch participant, you will spend a significant amount of time each day assisting scientists with data collection. Some of this work will be repetitive, but it is fundamental to our scientific understanding of human society and its interaction with the natural environment. The only way to begin to unravel this complexity is by designing good experiments, and carefully collecting as much data as possible. Without the work of thousands of dedicated scientists, we would know nothing about climate change, the effects of pollution, the thinning of the ozone layer, the extinction of species, or how to find cures for diseases or improve crops. Without science we would be blind to the world. This is your chance to be part of the scientific effort, to find solutions to pressing environmental and cultural problems, and to enjoy the beauty and diversity of nature as you work.

PROJECT STAFF

Earthwatch scientists

Dr. David J. Smith holds a B.Sc. and a Ph.D., and is currently a senior lecturer in marine biology at the University of Essex. He has also been a teaching fellow and a lecturer at the same university. He is the director of the Coral Reef Research Unit and of the Marine Research Operation Wallacea, as well as a senior advisor to the Institute of Marine Environmental Research in the Aegean Sea, and has been recently made a fellow of the Royal Geographic Society. He has supervised more than 100 undergraduate dissertations, mostly SCUBA-diving based, and has also supervised 19 Ph.D. students and four M.Sc. students. He is a PADI Dive Master and BSAC advanced diver (CMAS three-star) with 4,000 logged dives. Dr. Smith's research interests include spatial and temporal patterns in coral reef diversity, factors negatively impacting coral reef diversity and productivity, plasticity among scleractinian corals and coral reef fish, photo-physiology of scleractinian coral zooxanthellae and coral bleaching, photo-adaptation of the coral-zooxanthellae complex and consequences for coral distribution, the biological and economical value of coral reef systems, the role of social capital in biodiversity management, and the use of traditional ecological knowledge in sustainable biodiversity management.

Dr. David Suggett holds B.Sc., M.Sc., and Ph.D. degrees. He was a research fellow from 2004–2007 at the University of Essex, and has been a lecturer in marine and freshwater biogeochemistry from 2007 to the present at the University of Essex. He is currently the assistant director of the Coral Reef Research Unit and has been the scientific advisor for the Gulf of Mexico Ocean Observing System (GoMOOS) project "Primary productivity in near shore waters" since 2004. He was the scientific research coordinator for the Kefalonian Marine Turtle Project from 1995–2000; scientific adviser for the Mediterranean Association for Sea Turtles (MEDASSET) from 1998–2000; and manager and scientific director of Pacuare Nature Reserve, Limón Province, Costa Rica from 2000–2001. His research interests include: metabolism and productivity of tropical marine primary producers (microalgae including symbiotic zooxanthellae, macroalgae and seagrasses); regulation of the light environment of symbiotic algae by the host; response of the coral-zooxanthellae symbiosis (acclimation and species "shuffling") to environmental change; adaptive plasticity of zooxanthellae photosynthesis; benthic-pelagic coupling of reef community production; and sea turtle ecology and behavior. He is a PADI Advanced Diver.

Earthwatch field staff

Philippa Mansell, the expedition research officer, holds a B.Sc. (hons.) in marine biology and oceanography from the University of Plymouth. She is currently undertaking a NERC Knowledge Exchange Fellowship at the Coral Reef Research Unit (CRRU, University of Essex) establishing networks between coral reef researchers, industry, and education-focused organizations. She is the director of an Indonesian NGO that manages scientific expeditions at a research facility in the Wakatobi Marine National Park, and has been site manager and Indonesian coordinator for expeditions in this area for five years. She has also served as CoralWatch project manager at the University of Queensland and been a research officer at Lizard Island Research Station in the Great Barrier Reef. She is a PADI Divemaster, has attended 15 diving-based expeditions, 7 of which she led, and has logged over 1,000 scientific dives. Her key research interests include coral reef ecology and conservation.

Sarah-Jane Walsh is currently undertaking a Ph.D. in coral biology, supervised by Dr. David Smith and Dr. David Suggett at the Coral Reef Research Unit (CRRU, University of Essex). Her previous experience includes a B.Sc. in marine and freshwater biology (University of Essex) and an M.Sc. in climatic science (University of East Anglia). Her current research includes the impacts of climate change on the survival of coral reefs and focuses on the protection and management of these in the future. Sarah-Jane has experience overseeing coral bleaching projects with Operation Wallacea at their marine station in Indonesia, training with the Reef Systems Unit in

Mexico (UNAM), and has several months experience working within the fisheries division of the Department of Environment, Food, and Agriculture (DEFA) in the Isle of Man. Sarah-Jane is a PADI Divesmaster, has 10 years' diving experience in both temperate and tropical waters, and has logged over 150 dives.

A staff member from the Seychelles National Park Authority will also join the team to provide logistics support. He/she will be confirmed closer to the expedition.

Staffing Schedule

Staff Member Present	Team 3
David Smith	x
David Suggett	x
Philippa Mansell	x
Sarah-Jane Walsh	x

Daily Life in the Field

VOLUNTEER TRAINING AND ASSIGNMENTS

Training

Field skills training will begin on Day 1. On arrival, the team will be given a general talk on the coastal ecology of the Seychelles, coral reef ecosystems, and climate change. This will include a basic introduction to the sorts of animals which are likely to be encountered. We will show images of the common species and go into the field to examine some. Volunteers will be introduced to all aspects of the research, including field survey techniques, experimental design, and use of analytical equipment. In each case, individuals will be shown how to most effectively work in groups of 2 or 3 and take turns with activities.

Dr. Smith will train volunteers with regard to utilizing SCUBA diving and snorkeling techniques. Volunteers qualified to participate in the diving element of the research will be introduced to the diving regulations, dangerous marine animals, and the risks associated with coral research diving. All diving volunteers, regardless of level of qualification or experience, will have to complete a check dive with one of the dive masters. This check dive will include basic diving practices, buoyancy checks, and rescue skill scenarios. Those volunteers wishing to snorkel will be introduced to best and safe snorkeling practices, and will have to demonstrate in-water proficiency. The second day will involve a series of seminars describing the ecology of reef systems, the biology of corals, an introduction to species identification, and the specifics of in-water survey techniques including practice sessions on land. A series of training dives and snorkel sessions will be undertaken to provide volunteers with the training necessary to safely deploy transect lines and quadrats. Practice survey dives and snorkels will be carried out over transect lines and post activities briefings held to identify any problems and best practices.

The Earthwatch scientist will give the team a more detailed onsite project briefing when you arrive.

Assignments

Earthwatch volunteers will perform the majority of the science and survey of this project, from field measurements and aquarium studies to data entry and analysis. The number and types of assignments will depend heavily on the experience and interests of the team, as well as weather and findings. It will be important to be flexible. Specifically, volunteers will be involved with the coral and fish surveys (SCUBA and snorkeling) as well as non-invasive experimental work. Finally, volunteers will also be expected to be involved with group discussions, project development and project planning.

TEAM ITINERARY AND DAILY SCHEDULE

Please be aware that weather and research needs can lead to changes in the daily schedule. Should this situation arise, your cooperation and understanding are appreciated.

Days 1 and 2: Arrival at Praslin Island and transfer to Curieuse; introduction to field methods and data input; identification skills; if appropriate, test diving supervised by an Earthwatch scientist; planning for next day.

DAY 1

Time of Day	Activity
1–3 p.m.	Arrival and introduction to the field base, the research team and key research aims
Afternoon	<ul style="list-style-type: none"> • Lecture: Introduction to corals reefs • Lecture: Introduction to reef organisms • Lecture: Introduction to survey techniques • In-water activity: snorkel to reef front
6:30 p.m.	Dinner
Early Evening	Lecture: Coral reefs and climate change Brief: Planning for the next day and overview of days activities

DAY 2

Time of Day	Activity
7:30 a.m.	Breakfast
8:30 a.m.	Introduction to the day
9:00 a.m.	Land-based survey practice
10:00 a.m.	In-water activity: Practice SCUBA (Check Dive) and snorkel
12 noon	Activity debrief
Afternoon	In-water activity: practice survey Debrief Workshop: aquarium experiments and set-up
6:30 p.m.	Dinner
Early Evening	Workshop: division of tasks and planning for next day

Days 3–5: Surveys of coral communities; data input; evening discussions.

Time of Day	Activity
7:30 a.m.	Breakfast
8:30 a.m.	Prepare equipment (if needed)
9:00 a.m.	Start science and survey, eating lunch around midday
6:00 p.m.	End field or laboratory work; clean and put away all equipment
6:30 p.m.	Dinner
8:30 p.m.	Briefing for the next day's session

Day 6: Recreational day to explore the island; visit the island of Praslin or the stunning beaches of Curieuse.

Days 7–10: Field data collection; data input; evening discussion.

Time	Activity
7:30 a.m.	Breakfast
8:30 a.m.	Prepare equipment (if needed)
9:00 a.m.	Start science and survey, eating lunch around midday
6:00 p.m.	End field or laboratory work; clean and put away all equipment
6:30 p.m.	Dinner
8:30 p.m.	Briefing for the next day's session

Day 11: Wrap up field measurements; data input; clean up; possible recreational time.

Day 12: Breakfast, boat ride to Praslin and ferry to Mahé for afternoon or next-day departures. Volunteers should consult a travel guidebook for information on local attractions. See the *Helpful Resources* section for suggested guidebooks.

Recreational Time:

Your time on the island will be very full, but there will be daily opportunities to enjoy the surroundings. Volunteers must check with the Earthwatch scientists before leaving the research base, and must sign in and out if they leave. If time allows, the Earthwatch scientists will lead a walk to other parts of the island as a group excursion. Recreational activities may also include swimming or snorkeling in the lagoon (if conditions are deemed suitable by the Earthwatch scientists).

Note on Diving/Snorkeling:

On some days, a single dive or snorkel will take place, rather than two, allowing, allowing for volunteers to input data in the afternoon or work on other projects. Diving and snorkeling will be dependent on local sea state and weather. Although every effort will be made to ensure diving is possible, there may be times when we are not able to conduct marine surveys for safety reasons.

Note on Language:

While English is widely spoken, Creole is still spoken by many. Some of the volunteers will be Seychellois and can provide translation when necessary, but we always recommend that you know a few phrases in the local language to assist in the initial stages of each interview; not only will you be seen as being very polite, but it will also increase your confidence. Unfortunately, there are no easily available Seychellois Creole phrasebooks. Some websites (seychelles.travel/en/about_seychelles/language.php and wiki.travel.com/en/Seychellois_Creole_phrasebook) provide useful phrases and translations. Please ensure that you take the time to learn some of these before you travel.

Earthwatch Recreational Time Policy

Earthwatch will generally accompany participants from the rendezvous to the end of the expedition with the exception of recreation time.

- For days when no research activities are scheduled, referred to as recreational days, Earthwatch scientists will offer either a planned team activity or a range of recreational activities that have been vetted and comply with Earthwatch standards. Participants will also have the option of remaining at camp or project accommodations to rest.
- Participants who are determined to pursue options other than those recommended by the project staff will be required to sign a release before doing so. If there is a period of time during a regular research day when no research activities are scheduled, adult participants may have the opportunity to leave the project site on their own; they will be asked to sign out of the project giving their intended destination. Not appearing for the next scheduled activity will trigger the Emergency Response Plan (ERP) regarding missing people. Earthwatch will assess the general risks of adult participants leaving the project site on their own at night after work hours, but cannot guarantee participant safety or an awareness of all issues.
- In some cases, due to local conditions, it may be advisable to restrict adult participants to the project camp or accommodation after dark. This will be clearly communicated in the on-site safety briefing. However, if the local conditions are such that adult participants can go out at night under their own accord, there will be a sign-out process through which participants should state their proposed destination and estimated return time. Participants will be given twenty-four-hour contact information for project staff should assistance be needed. The sign-out is informational only and will not be used to enforce a curfew on adult participants. Adult participants should understand that unless contacted for help, project staff will not start a search for a missing participant unless he or she fails to appear the following morning or for the next scheduled research activity.

ACCOMMODATIONS

Sleeping

On Curieuse Island, you will stay in a traditional guesthouse just 20 meters from the sea. The guesthouse has two bedrooms, a bathroom, a kitchen, and a sitting room.

We would like to remind you that your accommodations and food will be very simple, and you should be prepared for basic living conditions. As is common for tropical environments, you should expect that there will be yellow flies, ants, wasps, and mosquitoes, and you may see rats.

Participants will sleep in bunk beds (two bunks in each bedroom), and therefore you will share a room with three or four others depending on total team size. Rooms will be split by gender. There are no single or couples rooms. Due to the tropical climate, you should only need bed sheets for sleeping. Sheets will be provided, but you may wish to bring your own. We also strongly recommend that you bring mosquito nets for your beds.

Bathrooms

The bathroom is within the guesthouse and consists of one shower, basin, and flush toilet. The shower provides cool to warm water, which is most refreshing after a day spent in the sun. You will need to bring your own towel for washing, and you may wish to bring another for beach use.

Electricity

There is 24-hour electricity. You are strongly advised to bring a personal computer for data recording and analysis purposes. A digital camera will also help record information. Please be aware that all such items are carried at your own risk. Be certain to prepare for any difference in electrical supply or plugs (local supply is 240 volts AC, three-square-pin, as in the UK). Also, you should take into consideration the possible effects of sand and salt on any equipment you bring.

Internet and Communications

There is neither a phone line nor Internet access in the guesthouse, but there is mobile coverage.

Facilities and Amenities

There are no laundry facilities available at the guest house, but participants can hand-wash clothes in the bathroom. The kitchen is equipped with a sink, gas stove top, and shared refrigerator, but all cooking is done by designated staff. Food should be kept away from bedrooms and general living areas so as not to attract rats.



Guesthouse rooms on Curieuse

Distance to Field Site

The accommodations are located at the field base. There is a 100-meter walk to the boat bay.

Services and Restaurants in Walking Distance

There are no services/restaurants on Curieuse. The nearest facilities are on the island of Praslin, which can be visited for a short time to buy snacks or supplies at the end of each day.

FOOD

At the guesthouse breakfast, lunch and dinner will be provided, all prepared by a cook. At the guesthouse, breakfast and dinner will be provided. Basic special diets, e.g. vegetarianism, can be accommodated, but appropriate supplements and vitamins should be brought, as the range of vegetables can be limited.

Below are examples of the foods you might expect in the field. Please bear in mind that variety depends on availability. This list is intended to provide a general idea of food types, but it is very important that volunteers be flexible.

Breakfast:	Continental style
Lunch:	Packed lunch (sandwiches)
Dinner:	Typically fish, rice, and vegetables; vegetarian meals; occasionally beef
Water:	Water will be boiled before drinking or bottled water will be provided

Special Dietary Requirements

Please alert Earthwatch to any special dietary requirements (e.g. diabetes, lactose intolerance, nut or other serious food allergies) as soon as possible, and note them in the space provided on your volunteer forms. Accommodating special diets is not guaranteed and can be very difficult due to availability of food, location of field sites, and other local conditions.

Special note to vegans: Strict vegan diets may be difficult to accommodate.

Travel Planning

You are encouraged to register your travel itinerary with your embassy. For information on embassies around the world, see embassyworld.com.

- Citizens of Australia may register online at: orao.dfat.gov.au.
- British citizens may register online at: fco.gov.uk/en/travel-and-living-abroad/staying-safe.
- Citizens of the United States may register online at: travelregistration.state.gov.
- Citizens of other countries are encouraged to check with their appropriate embassy or consulate regarding registration.

RENDEZVOUS

The rendezvous information for this project has been removed from this web version of the expedition briefing. It is only available in the printed version of the briefing. Please do not make any travel arrangements to join an expedition without having full and up-to-date rendezvous information from Earthwatch. Full rendezvous details, including places and times are available from Earthwatch upon request prior to registration for an expedition. Please use the “Contact Us” button on the top right-hand corner of the website to get in touch with an Earthwatch representative, who will be very happy to help you.

PASSPORTS AND VISAS

Passport Information

Participants traveling from outside the Seychelles will require a passport valid for at least six months beyond the dates of travel.

Visa Information

Citizens of the US, EU, Australia, Canada and Japan do need a tourist visa for entry. Citizens of other countries should check with their travel agent or a visa agency for specific visa and entry requirements. Travelers are advised to check visa regulations well in advance of traveling.

Note: The purpose of your visit is for vacation, holiday or travel. Foreign immigration officials do not always understand the concept of a “working vacation” or “volunteering.” Words such as “working,” “volunteering,” “research,” or “scientific expedition” can raise questions concerning the country’s foreign labor laws and/or prompt questions about official scientific research permits and credentials, etc., to which volunteers on their own will not be equipped to respond. All required research permits for the project are in place and have been approved by the proper authorities.

For Volunteers Requiring Visas ONLY: Essential Information

Type of Visa	Volunteers requiring a visa must get a TOURIST VISA .
Where to Get	Contact the nearest Seychellois embassy or consulate to find out how to apply for your visa.

a Visa	Please note that this process can take weeks or more. We strongly recommend using a visa agency , which can both expedite and simplify the process. See below for a list of visa agencies.
Required Information	You will need to send your passport (valid for at least six months beyond your stay), a Visa Application and Immigration Form, 2-4 passport-size photos, and payment to the embassy or visa agency (if applicable). Please be sure that your passport is valid for at least six months beyond your stay.
Contact Information	You may be required to list the following contact information on your Visa Application and Immigration Form: Mr. Rodney Quatre Seychelles National Park Authority, P.O. Box 1240, Victoria, Mahé +248 225-114
Cost of a Visa	Generally between US\$40-100, but varies from country to country and can potentially cost up to US\$180 . A visa agency will charge an additional fee.

Visa Agencies

In the United States	In Europe	In Australia
Trivisa* 290 5th Avenue, 4th Floor New York, NY 10001 Tel: (212) 613-2223 Fax: (212) 613-2287 Hours: 9:00 AM to 5:00 PM EST Web: trivisa.com (*See the website for additional offices)	CIBT, Inc.-UK 25 Wilton Road Lower Ground Floor Victoria SW1V 1LW Tel: 0844-736-0211 Fax: +44 (0) 207-828-5411 Calling from Europe outside UK: +44 (0) 207-802-1000 Email: info@uk.cibt.com Web: uk.cibt.com (has alternate address for urgent requests)	Ask your travel agency if it can send your visa application on your behalf.

INSURANCE

MedEvac assistance, advice, and insurance are included in the contribution you pay to Earthwatch. This covers trip cancellation and your travel medical risks, including medical expenses and emergency medical evacuation, while you are traveling. This coverage is valid in the country of your Earthwatch expedition (**Note:** For US volunteers, as long as the expedition is over 100 miles from your place of residence) and during travel to and from your expedition. Please see the Earthwatch website for more information on insurance provision.

If you have additional vacation time before and/or after your Earthwatch expedition that forms part of your overall time away from your place of residence, this additional vacation time is not covered under this policy. If you are in any doubt as to whether your travel plans before and/or after your Earthwatch expedition constitute additional vacation time, please contact the insurance provider.

This insurance policy is secondary to your existing health insurance policy (e.g. the NHS in the UK).

If you signed up through Earthwatch UK/Europe, or Earthwatch Japan:

Details of the included insurance policy can be found at earthwatch.org/europe/insuranceinfo.

Please refer any queries regarding this policy to **Philipp Seel** at Willis, who can be reached at +44 20 70889182 or seelp@willis.com.

You can find information about additional insurance available to UK residents for coverage before or after your Earthwatch project at earthwatch.org/europe/insuranceinfo. Should you have any questions about whether you require coverage for your travel plans, please contact the policy provider. Earthwatch is not authorized by the FSA to give advice on any additional travel insurance you might require.

If you signed up through Earthwatch US:

Details of the US insurance policy can be found at earthwatch.org/insurance.

Please refer any queries regarding this policy to **Michael Smith** at Willis, who can be reached at +1 973 829 6397 or michael.smith@willis.com.

You can find information about additional insurance available for coverage before or after your Earthwatch project at earthwatch.org/insurance. Should you have any questions about whether you require coverage for your travel plans, please contact the policy provider. Earthwatch is not authorized by the FSA to give advice on any additional travel insurance you might require.

Emergency Medical and Evacuation Assistance (For All Volunteers)

Emergency medical and evacuation assistance is available for all Earthwatch participants from CEGA Medical, a twenty-four-hour international emergency medical and evacuation service. Please see the contact information on the *General Information* page.

ADDITIONAL TRAVEL INFORMATION

Luggage

- *General considerations:* Do not bring more luggage than you can carry and handle on your own. If traveling by air and checking your luggage, you are advised to pack an extra set of field clothing and personal essentials in your carry-on bag in case your luggage is lost and/or takes several days to catch up with you. Many airlines have strict baggage policies. Please check with your airline(s) on baggage weight limits, liquid restrictions, fees for checked baggage, etc.
- *Checking luggage:* Please note that if you will be taking an international flight that has one or more connections within the country of your destination, it will be necessary to collect any checked bags at the airport where you first arrive in the destination country. After proceeding through customs, you will have to recheck your luggage before flying on to your final destination.

Money Matters

- *Local currency:* Seychelles rupee. US dollars and Euros are accepted in some hotels, restaurants, and shops. See xe.com/ucc for currency information and exchange rates.
- *Personal funds:* On Mahé, money will be needed to cover food, accommodations, and miscellaneous costs before and after the team (minimum of two nights in a hotel, which can be paid for by credit card). A taxi to a hotel in Mahé will cost around 200 Seychelles rupees depending on the location. It is recommended to ask the price before entering the taxi. **Most payments in the Seychelles have to be made in foreign exchange (typically US Dollars or Euros).** There are ATMs available in Victoria and other locations around Mahé and on Praslin, but none on Curieuse. It is possible to exchange money (US dollars, Euros, GBP) at the airport. When staying on Curieuse, money will only be needed to buy snacks and drinks if/when a visit is made to Praslin. US\$100 is recommended for miscellaneous expenses.
- *Tipping:* Tips (restaurants, hotels, taxis, porters, etc.) and so on are usually already included as 5–10 percent of the bill or fare. All hotel and restaurant tariffs include a service charge, but payment is not obligatory.

Your Destination

- *Language:* English and French are the official languages, but most Seychellois speak Creole, a derivative of French. The project will be conducted in English, and for safety reasons, volunteers must be fluent in English to participate. It is recommended that all volunteers try to learn a few phrases of Creole before joining the project. See *Additional Policies* for more information.
- *Cultural considerations:* Volunteers are expected to dress appropriately, avoiding tight or revealing clothing. Please bring at least one pair of comfortable long trousers (cotton or similar—not jeans) and a plain long-sleeved shirt for events such as meeting government officials. Women should note that topless sunbathing is illegal in the Seychelles. Additionally, please be aware that the Seychelles government prohibits the wearing of any camouflage apparel in the country unless participating in a sanctioned military activity.
- *Electricity:* 240 volts, three-square-pin plug (as in UK). For additional information, see kropla.com/electric2.htm.



- *Time zone:* GMT/UTC +4 hrs. For time worldwide with GMT/UTC, see worldtimeserver.com.
- *Telephone Dialing codes:* When calling the Seychelles from another country, dial the country's international dialing code, followed by 248 and the number. When calling within the Seychelles, omit the 248. When calling another country from the Seychelles, dial 00, followed by the other country's country code and the number. Please note: you should check with your cell phone provider to obtain any carrier-specific dialing codes you may need; many providers have dialing procedures that may differ in whole or in part from these directions. See kropla.com/dialcode.htm.

Country Information

- UK Foreign and Commonwealth Office: fco.gov.uk/en/travel-and-living-abroad/
- Country information from around the world: countryreports.org
- National Geographic Map Machine: plasma.nationalgeographic.com/mapmachine
- US State Department: state.gov
- Online unit conversions: onlineconversion.com
- Worldwide weather: wunderground.com or tutiempo.net/en

- ATM locator: visa.via.infonow.net/locator/global/ or mastercard.com/atmlocator/index.jsp

RECOMMENDED READING

Below are additional recommended materials for those interested in further preparing for the expedition. Some may be purchased online through popular vendors. See the *Helpful Resources* section for links to suggested vendor websites.

Scientific Media

Books

- McClanahan T.R., Sheppard C.R.C. and Obura D.O. 2000. *Coral Reefs of the Indian Ocean: Their Ecology and Conservation*. Oxford University Press.
- Sapp J. 1999. *What is Natural? Coral Reef Crisis*. Oxford University Press.
- Stoddart D.R. (Ed.) 1984. *Biogeography and Ecology of the Seychelles Islands*. Junk, Hague.
- Wilkinson, C. (Ed.). 2002. *Status of coral reefs of the world*. AIMS, Townsville, Australia.

Journal Articles

- Suggett, D.J. and D.J. Smith. 2010. "Interpreting the signs of coral bleaching as friend of foe." *Global Change Biology*.

Popular Media

Books

- Gillham M.E. 2000. *Islands of the Trade Winds: An Indian Ocean Odyssey*. Minerva, London.
- Mair L. and Beckley L. 2001. *Seychelles*. Bradt, Chalfont St. Peter

Field Guides and Travel Books

- Lieske, E. and Myers, R. 2001. *Coral reef Fishes: Indo-Pacific and Caribbean*. Collins Pocket Guide Revised Edition. HarperCollins Publishers.
- Richmond M.D. (Ed.) 1997. *A Guide to the Seashores of Eastern Africa and the Western Indian Ocean Islands*. Sida/SAREC, Sweden.

Project-related Websites

- CARN: carnuk.org/
- CRRU: essex.ac.uk/bs/crru/
- Reefs at Risk: wri.org/project/reefs-at-risk
- Seychelles National Park Authority: scmrt-mpa.sc/

HELPFUL RESOURCES

Please see Earthwatch's Volunteer Resources pages for additional information on:

- Travel agencies with whom Earthwatch volunteers can get preferential rates
- Recommended kit and clothing providers
- Recommended travel booksellers

Volunteers who sign up through our US office, visit: earthwatch.org/volunteerresources

Volunteers who sign up through our UK office, visit: earthwatch.org/europe/volunteerresources

Project Conditions

Please show this section to a doctor when he/she is completing the Health section of your Earthwatch Participation Form. Be sure to discuss vaccination requirements with the doctor well in advance of your departure date. See the Health Information section for vaccination information.

To the doctor:

This patient has volunteered to join a field research team that has specific physical demands of which you and the patient should be aware. **We need your accurate evaluation of this patient's ability to meet the conditions detailed below in order to care for his/her health and safety, and to assess that he/she can participate fully and effectively.**

General Conditions

The weather will be warmer than at other times of year, but slightly less humid. The climate of this island chain is tropical (temperature range of 27°–32°C (80°–90°F), with average humidity of 70–90 percent, three meters of annual rainfall). The islands essentially experience two seasons: from May to October, the southeast trade winds bring cooler dry weather, and from December to March, the northwest trade winds bring calm but hot and rainy weather. The terrain of Curieuse around the research base is mostly very flat, but the interior of the island rises to 172 meters and consists of many granitic boulders.

The weather is expected to vary within the limits below.

April	
Humidity	74%
Temperature range	26–32°C (79–90°F)
Altitude	0–172 m (562 ft)
Rainfall	178 mm (7 in) per month

Eligibility Criteria

All participants must be able, independently or with the assistance of a companion, to:

- Follow verbal and or visual instructions.
- Enjoy spending several hours per day outdoors.
- Tolerate over 35°C (85°F) heat and exposure to strong sun for up to 2 hrs at a time.
- Traverse distances of up to 5 km per day over moderate terrain to move between and around village residences. This distance will be broken up, not covered all at one time.
- Remain in one place to conduct multiple interviews and discussions for periods that could total up to 8 hrs per day.
- Have a basic level of swimming for safety reasons, since the research will involve traveling by boat between some project sites (however, you are not required to be able to swim long distances).
- Get oneself up down into and up out of the boat, approximately 0.5 m from the jetty.
- Get oneself up into and down out of a car and ride, seated with seatbelt fastened, for a total of about 20 minutes once to twice a day.

- Remain seated in an upright seated position in a rigid hull inflatable boat for up to 30 minutes per day, with the possibility of choppy seas and an unbalanced boat.
- Divers only:** Meet all SCUBA requirements listed on the next page, and be prepared for 2-3 shallow (less than 20 m/65 ft) dives per day.

Please note: Please note that the snorkel activities may be more intense than the SCUBA given local weather conditions and waves.

Water Conditions

Typical water temperature at working depths	27°C (80°F)	to	32°C (90°F)
Typical water visibility	10m (33ft)	to	20m (66ft)
Typical maximum water depth in area	Over 500m (1,640ft)		
Site type	Granitic and lagoon diving		
Timing of activity	Day		
Egress into water	Ladder and/or over edge of boat and from shore		

Diving Conditions

A certified dive master or instructor will be present on all Earthwatch projects that involve SCUBA. The dive master/instructor is responsible for all aspects of safe diving. He/she will also inform divers about safety procedures, environmental rules and regulations, and safe diving limits. The dive master/instructor has the right to exclude anyone from participating in SCUBA activities if he/she fails the check-out dive, dives unsafely, or places him/herself or others in a situation of undue risk. The dive master/instructor may limit or modify the planned diving activities if he/she determines that a volunteer does not have suitable abilities to participate safely. If the dive master/instructor determines that the conditions are not suitable for diving, he/she may halt SCUBA or other in-water activities at any time.

To participate as a SCUBA diver on this project, a volunteer must:

- Provide proof of diving certification and DAN (or equivalent) insurance.
- Meet the minimum dive certification level of all Earthwatch dive projects, which is NAUI SCUBA Diver or PADI or SSI Open Water Diver or equivalent.
- Have logged at least 10 dives post certification.
- Have completed at least five dives within a year prior to the project, or completed a refresher course or skills check-out from a certifying agency or instructor (divers with 100+ logged dives may have a skills check-out, divers with under 100 dives must take a refresher course).
- Have good buoyancy control and be completely comfortable under water.
- Be able to swim at least 200 meters unaided by buoyancy devices.
- Send Earthwatch the most recent 10 dives from his/her dive log (NOT the entire log), and bring the log to the field for the project dive master to check.
- Undergo a medical exam and have the Earthwatch SCUBA participation form signed by a diving doctor prior to the expedition.
- Undergo a check-out dive by the project dive master, who will have the right to modify activities if needed.
- Bring his/her own mask, snorkel, fins, BC, weight belt (not weights), wetsuit/dive skin, regulator, computer, booties, light, etc.
- Have his/her regulator serviced within a year prior to the expedition, and dive with that equipment immediately prior to the expedition in order to test its use.

Marine Information

- Divers Alert Network: diversalertnetwork.org
- Dive Master Insurance Consultants Ltd.: dive-master.net
- South Pacific Underwater Medicine Society: spums.org.au

POTENTIAL HAZARDS

If you feel ill once you return from your trip, make sure you inform your doctor that you have recently returned from a tropical region.

Hazard Type	Associated Risks and Precautions
Transportation (road and boat)	Participants will be transported from the main port of Baie St. Anne (Praslin) to Cote d'Or by taxi or minivan. All volunteers must wear seatbelts and have their own seat during road transport. Some of the field sites will require transportation by boat. Volunteers should take care when entering and exiting the boats, as surfaces may be slippery and access may require a step up or down from the beach. Volunteers will be given a full safety briefing and must ensure that they comply with all briefings given by the project staff relating to safety. If you suffer from motion or seasickness and intend to treat this with either over-the-counter or prescribed medication, please discuss the use and side effects with your physician. Boarding and stepping out of an inflatable craft and/or sitting onboard a boat or in a vehicle when the sea is choppy or road surfaces bumpy may result in physical threat for those with mobility or spinal problems. These volunteers should carefully consider participation on the project. In addition, volunteers with back, knee, or hip problems, or pregnant women may face difficulty or discomfort not only when they board and exit the boat, but also during navigation under choppy sea conditions. There will be no smoking while on board vessels or within vehicles to avoid the risk of fire.
Terrain	On all terrain types, you should walk carefully and wear appropriate footwear. Watch in particular for potholes or unstable sections of road, which can easily cause falls or ankle sprains. The beach on the south side of Curieuse Island, for example, consists of coral sand, which could cause cuts to the feet. There are also some risks associated with walking through intertidal habitats. You should never enter the water without adequate footwear or without permission from project staff.
Plants	There is potential for contact with irritating plants while working on the island. Participants will be briefed on how to identify these plants, and warned of the risks. Any contact with the sap should be washed away immediately, and an eye bath used, if necessary. Encounter with these plants is unlikely. Participants may also encounter low-lying tree branches or falling coconuts, which could cause injury. Please be careful to avoid these and look where you are going when walking along coastal paths.
Marine Animals/Plants	Tropical marine environments have a number of potentially hazardous animals, and on-site training will be given in safe identification and avoidance techniques. Best practice is not to touch any animal. Most of these potentially dangerous animals are passive and will only represent a significant hazard if they are in some way harassed. Hazardous marine animals that may be encountered include hydroids, jellyfish, sea urchins, fire coral, grey reef sharks, whitetip reef sharks, rays, lion fish, scorpion fish, stone fish, rabbit fish, sturgeons, barracuda, and trigger fish. Stingrays commonly frequent the shallows immediately adjacent to the accommodations, and appropriate footwear should be worn and care taken even when paddling at the waters' edge.

Scorpions	A small species of scorpion is also present on Curieuse Island, though it is rarely encountered and only gives a mild sting. Volunteers should shake out footwear before putting on and be careful of where they step.
Rats	Rats can be seen on the islands and present a risk of leptospirosis or rabies. To reduce the chance of rats entering the accommodations, participants should not leave any food out. All food should be stored in closed containers and not left exposed.
Insects	Yellow wasps are found in low-level vegetation on the islands. They can give a nasty sting, which should be treated with antihistamine ointment. Other stinging and biting insects include ants, mosquitoes, bees, and wasps. Volunteers who experience allergic reactions or anaphylactic shock when stung should bring appropriate treatment with them. Additionally, chikungunya is currently present in Mahé. This is an infection that is spread by mosquitoes, causes flu-like symptoms, joint swelling, aches, and stomach pain. These symptoms can last from a few days to a couple months. Volunteers should protect themselves from being bitten by mosquitoes by wearing strong insect repellent (50% DEET) and wearing trousers and long-sleeved shirts at dawn and dusk.
Climate/Weather	The major hazards when working in this type of environment are climate related, specifically heatstroke, dehydration, and sunburn. Volunteers should keep out of the sun whenever possible, wear protective clothing and high-factor sun block, and drink plenty of water to keep hydrated (up to six liters a day). Because of the high humidity, persons using a hearing aid device may find it doesn't work properly. You should consider purchasing a hearing aid dehumidifier. For an example, see: shopmash.com/AIDS_TO_DAILY_LIVING/HEARING_ASSIST_DEVICES/HEI400587/product.aspx
Swimming/ Wading/ Snorkeling	Swimming may be a possibility as a recreational activity. Two fatal shark attacks took place in the waters off Praslin in 2011. Volunteers should follow safety instructions given by the Earthwatch scientists, which will take into consideration local guidance on whether swimming will be permitted or not. Currents and swells caused by the southeast monsoon may be a common occurrence during the project, should swimming be possible participants must be mindful of water conditions before entering. No volunteer should enter the water before talking to, and getting permission from, the Earthwatch scientists. Volunteers cannot swim alone, at night, or after consuming alcohol.
SCUBA Diving	SCUBA diving activities have inherent risk and qualified volunteers who intend to SCUBA dive will receive training in safe diving practices as it relates to remote tropical diving. If you intend to dive, you must be in good physical condition and must have undergone a recent physical examination by a physician (preferably one familiar with diving). Restrictive dive profiles will be used and checks will continually take place. As with all diving activities there is a risk of a de-compression illness (DCI). There isn't a recompression chamber on the island; therefore, there will be strict diving restrictions imposed. Volunteers must follow the Earthwatch scientists' instruction, as failure to do so could result in not being allowed to participate in diving activities. All volunteers undertaking SCUBA activities will also be required to participate in test dives. Should the Earthwatch scientists not be satisfied with your competence, you will not be able to participate further in these activities.
Project Tasks/ Equipment	Lab work will involve sharp tools. Care should be taken not to cut oneself. SCUBA participants will be using heavy equipment, such as oxygen cylinders and weights. Care should be taken not to drop equipment and to avoid back strain when lifting.
Personal Security	Volunteers should be careful with personal belongings, especially when staying in busy areas of Mahé. We advise against walking alone along deserted beaches. Participants will be working closely with local people conducting interviews and discussions, which may cover sensitive topics. To reduce the chance of upsetting or causing distress to interviewees and/or participants, the Earthwatch scientists will ensure that they have full permission to conduct these interviews before they take place and brief all participants fully

	on appropriate questioning techniques and cultural sensitivity. All interviews will be conducted in open environments.
Political/Social/ Cultural	Swimwear should only be worn on the beach; normal clothes are required in towns. Topless and nude bathing are unacceptable. Wearing camouflage clothing is prohibited. Homosexuality is illegal. Piracy has also been a threat in the region in recent years, although there has been no trouble close to or within the Seychelles Islands. Project staff is aware of the threat, and the Seychelles government remains on high alert. Because participants work close to shore, they are exposed to a (very low) piracy threat.
Traveler's Diarrhea	Traveler's diarrhea affects 20–50% of all international travelers. Always wash your hands with soap and water or a hand sanitizer before eating, and drink filtered, boiled, or bottled water. You should also carry an over-the-counter anti-diarrheal medication in your personal first aid kit. Speak to your doctor about other options for treating traveler's diarrhea and see the CDC website for advice on avoiding this condition.

HEALTH INFORMATION

Routine Immunizations

All volunteers should make sure to have the following up-to-date immunizations: DPT (diphtheria, pertussis, tetanus), polio, MMR (measles, mumps, rubella) and varicella (if you have not already had chicken pox). Please be sure your tetanus shot is current.

Project Vaccinations

Medical decisions are the responsibility of each volunteer and the following are recommendations only. While Earthwatch can provide details regarding suggested vaccinations, we are not a medical organization and decisions about which vaccinations to receive should be made between you and a doctor. Health conditions around the world are constantly changing, so keep informed and consult your physician, a local travel health clinic, the US Center for Disease Control (cdc.gov), and the World Health Organization (who.int) for the latest health information for travelers. Please consult a physician for guidance on vaccinations if you intend to travel to other parts of the country.

	Required for Entry	Recommended for Health Reasons
Typhoid		X
Yellow fever	X - if traveling from countries or region where it is endemic, a Certificate of Vaccination is required.	
Hepatitis A		X
Hepatitis B		X
Rabies		X

Advice Regarding Diseases

Diseases found in tropical regions include dengue fever, filariasis, leishmaniasis, schistosomiasis, hepatitis, and typhoid. Most diseases are prevented with basic safety cautions. Please see the CDC (cdc.gov) or WHO (who.int) websites for more information. Many of these diseases are spread by insect bites, so volunteers must ensure that they cover up at dawn and dusk and wear strong insect repellent at all times (50% DEET).

- *Rabies*: Rabies vaccinations are generally recommended for this expedition given the potential contact with wildlife (rats) and the prevalence of loose and stray dogs. The rabies pre-exposure vaccination consists of three doses over a 28-day period. Please be sure to consult your physician or travel health clinic well in advance to ensure you have time for the full vaccination series. If you have previously been vaccinated, you must have a medical professional check your antibody levels; a booster shot may be required. Rabies is a fatal disease. Treatment after rabies exposure requires immediate care (within 24 hours), and this type of rapid response will not be available to volunteers on this project due to the remote locations. Pre-exposure vaccination does not eliminate the need for post-exposure medical attention and treatment, but it does provide additional protection against the disease in event of a delay in treatment. In addition, any bites or scratches should be immediately and thoroughly washed with soap and clean water and a topical povidone-iodine solution or ethanol.
- *Tuberculosis*: The WHO estimates that one-third of the world's population is infected with the bacterium (*M.tuberculosis*) that causes tuberculosis (TB). Incidence of tuberculosis is higher in developing countries, particularly in Asia, Africa, the Caribbean and Latin America. In general, approximately 10% of persons infected with *M. tuberculosis* are at risk for developing active TB during their lifetimes. TB is considered highly treatable with medications that are of relatively low toxicity and cost. Volunteers returning from developing countries are encouraged to have a (PPD)-tuberculin skin-test to screen for potential infection.
- *Dengue fever*: Dengue fever is endemic in more than 100 countries in Africa, the Americas, the Eastern Mediterranean, Southeast Asia and the Western Pacific, and can occur throughout the year. Globally there has been a 30-fold increase in the number of reported cases of dengue fever. Dengue fever is a flu-like virus spread primarily by day-biting mosquitoes. It is characterized by fever, headache, rash, vomiting and severe muscle pains. There is no vaccine and mosquito bites should be avoided whenever possible. Insect repellent and long sleeves and pants are highly recommended. There is no treatment for standard dengue fever other than acetaminophen (avoid aspirin), fluids and rest. It is usually resolved after about two weeks. However, hemorrhagic dengue fever, characterized by bleeding and shock, can occasionally occur and requires medical care.

Additional Health Information Resources

- Travel health website: mdtravelhealth.com
- The Travel Doctor: tmvc.com.au
- Australian Department of Health and Aging: health.gov.au
- Hospital for Tropical Diseases: thehtd.org
- Traveller's Healthline Advisory Service Tel: (020) 7950-7799
- MASTA Travelers' Healthline (UK) Tel: (0906) 8-224100 (within the UK)

EMERGENCIES IN THE FIELD

Minor injuries can likely be treated on site. Dr. Smith is certified in emergency first aid and water safety, and is also a qualified dive master. Dr. David Barnes has a HSE certification in first aid. Minor injuries can likely be treated onsite. A well appointed hospital is located within one hour from the project site, at Baie St. Anne on Praslin.

Proximity to Medical Care

Physician, nurse or EMT on staff	Project staff are not medical professionals
Staff certified in safety training	CPR (Cardiopulmonary Resuscitation): Dr. Dave Smith, Dr. Dave Suggett, Pippa Mansell First Aid: Dr. Dave Suggett Wilderness First Responder: Dr. Dave Smith, Pippa Mansell Water Safety: Dr. Dave Smith, Dr. Dave Suggett
Nearest medical center	Baie St. Anne, Praslin (tel +248 232333)
Nearest hospital and/or clinic	<ul style="list-style-type: none">Baie St. Anne, Praslin (tel +248 232333)Victoria Hospital on Mahé (tel: +248 388000)
Distance	Baie St. Anne is around 3 mi (5 km) from the research base, approximately 10 mins' travel time by car

COMMUNICATIONS

Emergency Communications in the Field

There is mobile network coverage on Curieuse Island. The project boat is also equipped with boat-to-shore communication, and radios can be used on land if required.

The emergency contact number at Earthwatch headquarters in the UK is +44 (0) 7900-895-752 (see *Emergency Contacts* for calling instructions). You may also call Earthwatch in the US at +1 (978) 461-0081.

Personal Communications

Family and friends of Earthwatch volunteers should be aware that personal communication with outsiders is not always possible while participating in an expedition. Earthwatch encourages volunteers to minimize outgoing calls; likewise, family and friends should restrict calls to urgent messages only. Measures have been taken to ensure that appropriate communication tools are available in cases of emergency.

All volunteers are asked to remember that Earthwatch expeditions offer a rare chance to escape from hearing ringing phones and others' phone conversations, and to regulate their cell-phone use with respect for fellow volunteers and staff accordingly.

If necessary, volunteers can be reached via the contact information:

Address	Mr. Rodney Quatre Seychelles National Park Authority, P.O. Box 1240, Victoria, Mahé (Please note that post is unlikely to arrive in the time participants are in the field. If anything is sent, it should be clearly labeled for the recipient c/o Earthwatch Teams)
Phone	Project mobile phone: +248 529492 Please note this is for emergency use only . If families need to contact participants they should go through Earthwatch on the number above first. Participants will be able to use personal mobile phones if they are connected to a GSM roaming network.
Email	Volunteers will likely be able to make use of Internet cafés or hotel internet on Mahé before and after the expedition only. There is no Internet communication available on Curieuse.

Earthwatch Institute Policies & Participant Rights and Responsibilities

This document contains important information concerning Earthwatch Institute policies and participant rights and responsibilities for inclusion on an Earthwatch expedition. Please read this document thoroughly and sign the Liability Release section of your Earthwatch Participation Form to indicate that you understand and accept the risks inherent to your expedition and the policies, rights, and responsibilities enumerated in this document. Participants will not be permitted to partake in an expedition until Earthwatch has received the signed release form.

Intellectual Property Rights

It is permissible to share photos, videos, and stories of your expedition with family, friends, local media, and in a public forum. Sharing your new perspectives and experiences is welcomed and encouraged.

However, please recognize that all information, data, and images shared or gathered in the course of your expedition's field work become the intellectual property of the Earthwatch scientist (ES). Co-opting or plagiarism of data, images or information gathered during an expedition for use in a scientific thesis, masters or PhD work, or for profit or for the academic or business use of a third party without the permission of the ES is strictly prohibited. Please be aware that data gathered during the interviewing of local people becomes the intellectual property of the ES. Earthwatch scientists have the right to place additional restrictions on your ability to share data or certain research-related images.

Conversely, an Earthwatch scientist may give written permission to use data and images for academic or profitable activity. Please be sure to ask what is acceptable to the Earthwatch scientist.

Fellows or scholarship recipients are sometimes required to submit a written report reflecting what they have learned on a project, sometimes as a step toward developing a curriculum. Earthwatch scientists have the right but not obligation to review and edit materials involving information gathered on one of their expeditions.

Discrimination

Earthwatch does not discriminate on the basis of race, religion, ethnicity, national origin, gender, sexual orientation, or any other reason prohibited by applicable law and respects participants' right to privacy. However, you must be aware that local laws in countries in which Earthwatch operates may not be anti-discriminatory and that the possibilities exist that local residents may not have an awareness of best practice regarding discrimination.

Discrimination on the basis of race, religion, ethnicity, or sexual orientation will not be tolerated on Earthwatch teams. Disruptive behavior, or verbal, physical or any other type of abuse or harassment will also not be tolerated. Violation of Earthwatch's non-discrimination policy is grounds for expulsion from the program without a refund.

Intimate relationships

Earthwatch scientists, their staff, their colleagues, and their associates are prohibited from becoming romantically involved with participants during the entire duration of the period that the team is in the field. Romantic relationships that may otherwise seem permissible may eventually create an unpleasant or unproductive work environment and are therefore strongly discouraged for the duration of an Earthwatch project.

Sexual Harassment

Please recognize that the relationship that exists between Earthwatch scientists and staff and participants is analogous to the student-teacher relationship. Therefore, please be aware of the following policies.

Sexual harassment of participants by the Earthwatch scientist or Earthwatch staff is prohibited. Likewise, sexual harassment of other participants, Earthwatch field staff, or local people by participants is also prohibited.

Sexual harassment infringes on an individual's right to an environment free from unsolicited and unwelcome sexual overtones of conduct either verbal or physical. Sexual harassment does not mean occasional compliments of a socially acceptable nature.

Sexual harassment refers to conduct which is offensive, which harms morale, or which interferes with the effectiveness of Earthwatch expedition teams; such conduct is prohibited. Lewd or vulgar remarks, suggestive comments, displaying derogatory posters, cartoons or drawings, pressure for dates or sexual favors and unacceptable physical contact or exposure are examples of what can constitute harassment. No one should be touched in areas that otherwise would be covered by a bathing suit. It is important to realize that what may not be offensive to you, may be offensive to participants, the local population, and Earthwatch field staff.

Any individual who feels subjected to sexual harassment or has any knowledge of such behavior should report it at once to his or her PI or to Earthwatch staff members. All Earthwatch scientists and Field Team Leaders (FTLs) will notify Earthwatch immediately when an accusation of sexual harassment or abuse is made or witnessed.

All reports of sexual harassment will be handled with discretion and will be promptly and thoroughly investigated. Any participant who is found to have engaged in conduct constituting sexual harassment will be immediately removed from the expedition at his or her own expense. If a minor is immediately involved in allegations of sexual harassment, his or her parents will be contacted.

Drugs

Laws on drug use in most countries are severe and may carry lengthy imprisonment or death penalties. I understand and accept that the manufacture, possession, use, purchase and/or sale of illegal drugs or other illegal substances while on an Earthwatch expedition is strictly prohibited. Prescription drugs may only be purchased and used by the individual indicated on the prescription in keeping with their intended use guidelines.

Alcohol

Local statutes, customs, practices, ordinances, and regulations with regard to the use, possession, sale, or purchase of alcohol are applicable to all participants and project staff in Earthwatch expeditions. Participants and project staff on Earthwatch expeditions must comply with the law of the country in which a project is located regarding the minimum age required to consume alcohol. In addition, restriction on the use, possession, sale, or purchase of alcohol may be set by the Earthwatch scientist. Any restrictions on the consumption of alcohol should be clearly outlined by the project staff in the briefing to participants at the start of the project, and in the Expedition Briefing.

Consumption or possession of alcohol or smoking is not permitted on any Earthwatch Teen Team, regardless of local law.

Excessive consumption of alcohol by staff or participants is not acceptable on any Earthwatch project. Intoxication can jeopardize personal safety, in addition to the safety of the team. It can also cause delay, and hinder response in the event of a crisis or emergency situation.

Earthwatch staff and the Earthwatch scientist have the discretion to remove individuals from the project who consume alcohol in a time and manner that endanger the safety and/or productivity of the expedition.

Minors

Earthwatch considers participants under eighteen (18) years of age to be minors. Minors are not permitted to participate on any of Earthwatch's standard teams unless accompanied by a parent or legal guardian in which case the minimum age is sixteen (16). Minors on regular teams do not receive additional guidance or supervision from Earthwatch beyond what is offered to the adult participants. The number of minors on regular teams is limited to two (2) per team. Earthwatch has developed teams specifically for 16 and 17 year olds ("Teen Teams") as well as teams specifically for families ("Family Teams") with children as young as 10 years old. These teams focus on the same research activities and have the same expectations as our regular teams, but with more facilitation and support. Exceptions for some projects are made at the discretion of Earthwatch and the Earthwatch scientist. Due to a more in-depth screening process for certain programs that select candidates based on school year rather than age, there may be 18 year olds fielding on the same team as 16 and 17 year olds. Please be aware that some Earthwatch projects do not allow participation by minors in any circumstance.

Participants and Driving

Participants are not allowed to drive project vehicles or aircraft during an expedition. In select circumstances, participants may be able to drive boats under the direct supervision by project staff. These circumstances are pre-determined by project staff in collaboration with Earthwatch. Participants must respect the restrictions for boat driving in place for each project.

If a project environment is such that participants can drive their own vehicles to the rendezvous, those who have driven themselves to the project may not drive their own vehicles to, from or for project activities, including the transport of project equipment after arriving at the site.

Participants who have driven themselves to the project may choose to utilize their own vehicle during recreational time, but project staff will brief them on the driving restrictions. All driving during recreational time is done at your own risk.

Please be advised that the only exception to the above driving restrictions is emergency situations.

Riding in other participants' vehicles is not covered under the participants' insurance policy for the expedition. Riding in another participant's vehicle is done at a participant's own risk.

In the Event of an Emergency

In the event of emergencies, judgments must be made by Earthwatch field staff and participants. While Earthwatch makes an effort to ensure that qualified people make the most informed decisions possible, occasionally first aid may be administered and other immediate steps taken by expedition participants who are not licensed medical providers.

Each Earthwatch expedition has safety protocols and emergency procedures in place. Earthwatch encourages team members (the field staff and participants) to exercise their best judgment with regard to their own safety and the safety of other team members. Other participants may perform "Good Samaritan" actions, or actions taken to assist fellow participants during emergency situations in the field. However, Earthwatch does not encourage or expect you to jeopardize your own safety or that of others in attempting to rescue or assist your fellow team members.

Right of Refusal

Earthwatch reserves the right to refuse an applicant's participation on Earthwatch projects at any time and to terminate any work being done by a participant and require the participant to vacate the project site if any of the Earthwatch Expedition Team in his or her absolute discretion considers it appropriate. In this event, the participant (and his/ her parent/ guardian, if appropriate) will be responsible for arranging and paying for any accommodation, travel or other arrangements which may be necessary following the termination of a participant's involvement in a project, for whatever reason and may not be eligible for a refund.

Earthwatch and the project staff may not refuse a participant for discriminatory reasons (race, religion, ethnicity, national origin, sexual orientation, or any other reason prohibited by applicable law). However, participants may be denied in the interest of team compatibility. Earthwatch will make reasonable efforts to accommodate participants with disabilities and the organization endeavors to find appropriate expeditions for those participants that have physical limitations. Refusal of a participant is an unusual event and is generally due to either an applicant's failure to meet the essential eligibility requirements of a particular project, or in the interest of team compatibility. In the event that an applicant is refused participation for health reasons, Earthwatch will refund in full any deposit or payment made toward the expedition.

Earthwatch scientists have the right to refuse special requests, such as media visits (film, photography or print), special groups or teams (students, donors, etc.), if they conflict with Earthwatch scientist schedules, safety, research objectives or general performance of the team.

Any participant found in violation of any of the policies described in this document ("Earthwatch Institute Policies & Participant Rights and Responsibilities") is subject to removal from the team at their own expense. By signing the Liability Release section of your Earthwatch Participation Form, participants are indicating that they have read and understand the policies in this document. Removal of a participant from a team is at the discretion of the Earthwatch scientist or Field Team Leader and Earthwatch staff. In addition, Earthwatch will support the right of the scientist to send participants away from a project once in the field should their behavior compromise the safety, research objectives or general performance of the team, or if the participant has violated a stated policy. In the event that a minor is dismissed from a project, Earthwatch will contact the participant's parents or legal guardian prior to their dismissal. Should a participant be removed from a team, he/she is responsible for any or all costs associated with departure from the team and will receive no refund of the share of costs of the expedition nor any expenses incurred in participation on the expedition.

(November 2010)

Expedition Packing Checklist

Required Items

- This Expedition Briefing
- Photocopies of your passport, flight itinerary and credit cards in case the originals are lost or stolen; the copies should be packed separately from the original documents
- Passport and/or visa (if necessary)
- Certification of vaccination (if necessary)
- Calling card/mobile phone (with international calling capabilities if applicable)
- Credit card that may be used (internationally, if applicable) in the event of an emergency (travel delays, etc.)

Clothing/Footwear for Fieldwork

- Be sure to bring your Earthwatch T-shirt and remember to wear it, as appropriate, throughout your expedition
- Lightweight, quick-drying, long-sleeved shirts and pants/trousers
- Good footwear: trainers/sneakers or sturdy sandals
- Bathing suit/swimwear (at least two suggested)
- Sandals for casual wear
- Water shoes/booties
- Flashlight or headlamp with extra batteries and extra bulb

Clothing/Footwear for Leisure

- One set of clothing to keep clean for end of expedition

Field Supplies

- Small daypack/rucksack
- Dry bag or plastic sealable bags (good for protecting equipment such as camera from dust, humidity, and water)
- Insect repellent spray
- Two one-liter water bottle(s)
- Pens and paper for data recording
- Memory stick of 2-4GB for exchanging data
- In addition, a personal laptop computer (or similar for data recording and analysis), a sound recording device, and digital camera are highly recommended.

(Please note: if you are bringing expensive equipment ensure that it is covered under your own personal insurance or Earthwatch insurance. You must also ensure that you store your valuable items safely and securely at all times.)

Required Items for Scuba Volunteers

ALL EQUIPMENT with the exception of

- Air tanks with air refills (as needed)
- Buoyancy compensator (BC) and regulator
- Weights to fit on standard webbing belt

MUST be brought with you on your expedition. **There is no facility to rent these on Curieuse Island.**

This has the advantage of ensuring that the equipment you are using will be familiar and comfortable, as well as the added benefit of assisting the scientific research finances. It is important that your mask fits well, so if you borrow equipment from someone, ensure that the size and shape of the face seal is appropriate.

- Certification card and dive-log showing at least last five dives
- DAN Insurance card
- Buoyancy compensator (BC)
- Regulator with octopus and compass
- Depth and pressure gauge(s) (minimum required, though a dive computer is optional)
- Webbing style weight belt (weights provided at site) with buckle and clips
- Emergency whistle
- Safety sausage
- Dive tables
- Dive watch
- Dive light
- Wetsuit
- Spare batteries for dive computer and other equipment
- Repair kit with extra parts for all scuba gear (O rings, fin and mask straps, BC patch kit)
- Mesh bag to keep all of your gear together

Bedding and Bathing

- Bed sheets will be provided, but you may wish to bring your own sheets, or a lightweight sleeping bag
- Towel
- We strongly recommend that you bring mosquito nets for your bed.

Personal Supplies

- Personal toiletries (biodegradable soaps and shampoos are encouraged)
- Roll of toilet paper
- Antibacterial wipes or lotion (good for cleaning hands while in the field)
- Personal first aid kit (e.g. anti-diarrhea pills, antibiotics, antiseptic, itch-relief, pain reliever, bandages, blister covers, etc.) and personal medications
- Sunscreen lotion with SPF 30 or higher
- Insect repellent (50% DEET)

Miscellaneous

- Spending money
- Camera, film/memory card(s), extra camera battery
- Good coffee and/or tea, dried fruit for snacks, or other goodies

Optional Items

- Beach towel
- Eye and ear drops (recommended)
- Earplugs
- Hardware for sharing digital photographs at the end of the expedition
- Travel guidebook
- Books, games, journal, art supplies, etc. for recreational/rest time and travel
- Binoculars: the Seychelles are world-renowned for birds
- Duct tape—always handy!
- Charging plugs for mobile phones, cameras, and other devices with appropriate current conversion and plug adaptors
- Gifts for locals, e.g. blank exercise books for schoolchildren, stationery, pens, pencils, rulers, crayons, painting kits, solar-powered calculators, and so on, as well as any other educational items which you may have (atlases, English language teaching books, etc).

For Recreational Snorkeling

Snorkeling is an optional recreational activity – it is not compulsory on this research project. However, if you plan on snorkeling during your stay, please note that **ALL EQUIPMENT** MUST be brought with you on your expedition.

There is no facility to rent these on Curieuse Island.

- Mask
- Fins
- Water shoes/booties
- Exposure protection: a 3–5mm wetsuit should be fine, though you may also prefer to cover your legs and arms, as jellyfish are present.

Note: *Required and Optional Items lists are accurate to the best of Earthwatch's knowledge at the time of publication.*



Our Mission

Earthwatch engages people worldwide in scientific field research and education to promote the understanding and action necessary for a sustainable environment.

We believe that achieving a sustainable future requires objective scientific data from the field—and that the scientific process must engage the general public if it is to change the world. To that end, we involve people from all walks of life directly in global field research.

We invite you to join us.

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