PROJECT SUMMARY

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Coral Communities in the Seychelles: Coral Reef Research Programme</th>
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<tbody>
<tr>
<td>Lead Scientist</td>
<td>Professor David Smith, University of Essex, Coral Reef Research Unit</td>
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<tr>
<td>Field Dates</td>
<td>April 2018 [exact dates to be confirmed] 12 days duration</td>
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<tr>
<td>Location</td>
<td>Curieuse Island, Seychelles</td>
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<tr>
<td>Team Type</td>
<td>Mixed group of early career researchers/scientists/divers and corporate employees</td>
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<td>Geographic restrictions</td>
<td>Indian Ocean region, and links to projects and organisations working on or in intertidal / coastal, marine and mangrove habitats.</td>
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<td>Prerequisites</td>
<td>Experienced Scuba Divers only – see eligibility requirements on page two for more details.</td>
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ABOUT THE RESEARCH PROGRAMME

Tropical coral reef systems are some of the most biodiverse ecosystems in the world. They also serve as a buffer between coastal land and ocean waves, have cultural importance for the communities around them and are a key resource for food and income generation. But, though many recognize that maintaining reef health is essential to the welfare of hundreds of millions of people, humans continue to degrade reefs by unsustainably exploiting their resources, polluting coastal waters, and changes in land use (e.g. coastal development). These threats add to the potentially devastating impacts of climate change, which could alter the physical and biological structure of reefs to a point where they can no longer provide us with the services we depend on—and where the diversity of life they support no longer exists.

The Coral Reef Research programme is led by Professor David Smith, a senior lecturer in Marine Biology at the University of Essex in partnership with Earthwatch, the Seychelles National Parks Authority and funded by Mitsubishi Corporation. The project, established in 2006, maps all the major coral reef habitats within the Curieuse National Marine Park, assessing their biological richness and uniqueness and annually carrying out surveys at key monitoring stations and conducting aquarium experiments. Currently the research focuses on determining which environmental conditions most drive reef degradation, which factors effect coral reef resilience and tolerance to thermal stress, which species will face the most negative effects and how changes in habitat quality may impact ecosystem biodiversity.

The data collection and analysis enables David and his team to calculate the rates of change in habitat quality, what factors influence these rates of change and the tolerance and resilience of coral reefs under changing climatic conditions. The aim of the research is to provide managers and policymakers with the key information they need to counteract the threats to coral reefs.

Each year a small team of volunteers travels to Curieuse Island to assist the research team in their field study activities. The team works alongside world renowned scientists carrying out the majority of field research activities including field measurements, data entry, data analysis and aquarium studies, in addition to engaging in learning sessions about coral reef biology and wider environmental issues. The programme is designed to give participants hands on experience of working on a research project and opportunities to network with scientists and researchers from around the world.

The successful candidates will go on to join a team of corporate employees from Mitsubishi Corporation and early career scientists and divers from within the Indian Ocean region. The diverse mix of participants brings together a rich blend of different backgrounds, cultures and experiences. A key part of the programme is about exchanging and sharing different views and perspectives, particularly during group discussion sessions, which will take place in the evenings.

PROJECT COMPONENTS

- Introduction to the field base, research team and key research aims.
- Series of introductory lectures looking at coral reefs, reef organisms and the effects of climate change.
- In-water survey and data collection techniques training and activity.
• Developing research dive techniques
• Aquarium experiments workshops
• Laboratory based data analysis
• Evening lectures or skills workshops relating to the research and topical discussions with the research team and fellow participants.
• Networking with a diverse team of scientists, corporate employees and early career conservationists.

Please be aware that some scheduled items may change or be adapted to suit the needs of the research and the needs of those participating in the programme, therefore please allow for a degree of flexibility with the scheduling.

**BENEFITS OF THIS TRAINING OPPORTUNITY**

Some of the key benefits of this rare training opportunity include;
• Enhancing your existing dive skills and experience through developing research specific dive techniques from world renowned marine biologists;
• Gaining a more in-depth understanding and knowledge about coral reef habitats, species and the effects of climate change;
• Participating in and contributing to a highly relevant, innovative and exciting long-term conservation research project;
• Learning about local and global environmental challenges and how these relate to coral reef habitats;
• Learning about field research study techniques and implementation;
• Connecting with an international team of volunteers and engaging in dynamic group discussions and exchanges;
• Getting feedback and guidance from expert scientists on your performance;

**SCUBA DIVING REQUIREMENTS**

• Provide proof of diving certification and DAN (or equivalent) insurance.
• Meet the minimum dive certification level for this project, which is CMAS 2 star = PADI Rescue, BASC Sports or equivalent. Or, have at least 30 dives, of which five were in the past year.
• Have logged at least ten 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 ten 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 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.

*If any of the above requirements are not clear or you have questions regarding your suitability for the programme please get in contact with Katherine McGavin at kmcgavin@earthwatch.org.uk.

**LOGISTICS & TRAVEL**

The research will take place on Curieuse Island. This Fellowship includes funding for: accommodation, food, comprehensive travel and medical insurance, research training and equipment. Travel and accommodation arrangements will be made for participants by Earthwatch. International participants may need to add an additional day before and after the project, to allow for travel. Participants will be given a full project briefing, which includes the details of the project rendezvous and where they will meet the research staff on arrival and details of departure.