



# REEFDOCTOR

CREATING SUSTAINABLE FUTURES



## RESEARCH ASSISTANT PROGRAMME GUIDE



## Introduction to the Research Assistant Programme

Our Research Assistant programme trains volunteers to become integral members of our marine research team. It also provides the opportunity to get involved in a variety of marine conservation and management projects, and community development initiatives.

Research Assistants will receive professional training in scuba diving, species identification, and marine habitat surveying in order to assist us in our long term marine research programme. In doing so you will be directly contributing to the conservation of threatened marine ecosystems in the Bay of Ranobe and to the sustainable development of local Vezo communities.



To undertake our marine research surveys, all Research Assistants must be certified to PADI Advanced Open Water (or equivalent). If you have never dived before, we will train you from scratch and certify you to **PADI Advanced Open Water** in the first couple of weeks of your expedition. We can also provide **PADI Rescue Diver** (for 8+ week expeditions) and even the more intensive **PADI Divemaster** training (for 12 week expeditions)

This programme is also a great way for graduates and undergraduates to gain the essential field based work experience needed to help further a career in conservation and marine sciences. We can also provide the opportunity for BSc and MSc students in the field of environmental sciences and conservation to undertake their own research projects (please ask for further details).

Waking up to the sandy beaches in front of our project site provides an idyllic lifestyle, as does watching the sun set over the lagoon every evening. The conditions aren't five star, but living simply, next to a traditional Malagasy fishing community, is an incredible life experience.

Expeditions of 6, 7, 8, 9, 10, 11, and 12 weeks are available.

Expeditions run between January to December with spaces available for 4–6 people per expedition month.



## Who Joins?

We believe that everyone should have the opportunity to volunteer. We take people from all walks of life and from all over the world, as long as they are over the age of 18. All we ask is that you are reasonably fit and healthy; you will need to pass a diving medical before arrival.

No prior skills are required, just a general enthusiasm to learn more about the marine environment.



Our Research Assistant programme is suitable for a wide range of people including:

- Those completing a gap year.
- Those who wish to learn more about coral reefs and actively participate in marine research, management, and community development work.
- Marine and environmental science undergraduate and graduate students who wish to gain practical field based experience required for their studies (includes BSc and MSc thesis projects) and future career progression.
- Those who are on sabbatical leave.
- Those who are looking for a new career path.



**A good volunteer to staff ratio ensures that we are able to devote more time to you, allowing you to get the maximum experience possible out of your stay.**





## Research Assistant Training

Upon arrival, your initial training includes a short spell to get used to the life here. You will receive a background to Madagascar, its culture and customs, particularly the local Vezo fishing communities we work with. In addition, you will receive an orientation trip of the local village of Ifaty, and an introduction to our work and project site.

The core diving and science training usually covers the first 4 weeks of the expedition. However, science training can be ongoing throughout the expedition, especially for those wishing to progress to more advanced levels. As we say, the more you put in the more you get out!



The time taken to complete the core diving and science training will depend on the weather, individual dive training progression, number of other volunteers on site, progression of the individual in the science, and the occurrence of any external events and projects that may require volunteer participation.

The length of your expedition determines the level of scientific training you receive. All Research Assistants will be trained to a basic level, but those staying for 8 weeks or more (or any fast learners!) will have the opportunity to receive more advanced training.





## Dive Training

### *PADI Open Water Training Schedule*

- Open Water Book Work/Knowledge Reviews (x 5), Quizzes (x 4), and a final exam.
- Confined Water Dives (in the swimming pool of a local hotel).
- Confined Water Dive (lagoon dive).
- Open Water Dives x 4.

We usually aim to complete your Open Water course in the first week; however, this can vary depending on individual progression and external factors such as weather. The PADI Advanced Open Water course training will ideally start from the second week.





## Dive Training

### *PADI Advanced Open Water Training Schedule*

- Adventures in Diving Book Work/Knowledge Reviews (x 5).
- Checkout Dive (If Open Water Diver certification was not received at Reef Doctor).
- Naturalist Dive.
- Peak Performance Buoyancy Dive.
- Navigation Dive.
- Search and Recovery Dive.
- Deep Dive.
- Proficiency Dive(s) (Proficiency before certification).



Those certified to PADI Advanced Open Water or above will only need to do a few refresher dives (includes a basic underwater skills test and our own buoyancy test) before they begin science training.



For 8 weeks + expeditions, volunteers may also undertake the **PADI Rescue Diver certification** (includes the PADI EFR first aid course) for an additional fee.

For 12 week expeditions, **PADI Divemaster certification** is also available to those who are interested. This is performed under a tailored program incorporating core Research Assistant

programme science training. However, please note due to the amount of course skills to cover and course diving, the volunteer will be concentrating more of their time on the PADI Divemaster course compared with marine research diving. Spaces are limited per expedition so this option is based on a first-come, first-served basis. Due to the specific manuals required for this course, volunteers need to pre-book this programme before departure.

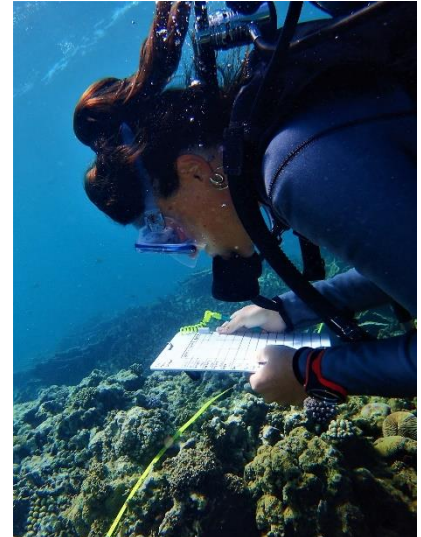




## Science Training

Research Assistants will receive the following core training:

- Introductory lectures on our various conservation, education, management, and development programmes.
- General overview of coral reef biology and ecology, and conservation.
- A series of marine species identification lectures. We train you in the underwater identification of commercially important reef species (fish and invertebrates), coral reef health indicator species (fish and invertebrates), and benthic substrata, this training ranges from basic to a more advanced level (time and individual progression permitting).
- Theoretical and practical training on coral reef surveying techniques.
- Fish length and biomass estimate training.
- Theoretical and practical training on seagrass habitats and their monitoring.
- Field excursion to visit mangroves and learn about their conservation.



The science training commences from the start of dive certification to PADI Advanced Open Water level (or straight away for those already dive qualified). It begins on land (with computer and literature based learning) and, as your identification skills develop, you'll go on snorkel and scuba trips with our science staff to practice species identification and coral reef surveying techniques.

All volunteers will be given marine identification and survey methods study guides a month (or earlier if you wish) before departure. This allows learning to begin in advance of the expedition in order to speed up the progression of training on site and maximising time spent as qualified reef surveyors!

Research Assistants **MUST** pass computer based species identification exams and assessed underwater surveys 'mimic survey dives' before they can take part in Reef Doctor's surveying programme. This ensures that we are collecting scientifically accurate data for our long-term research goals.

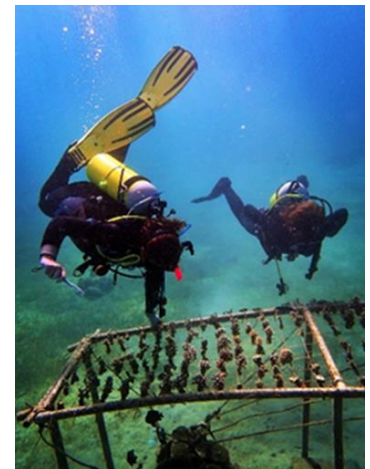


## Following Your Training

Once you have completed your training and passed our exams, you will be qualified to participate in our long-term coral reef monitoring programme, becoming a vital member of our surveying team. The role you will play (either fish, invertebrate, or benthic surveyor) will rotate as you gain experience. You will have the chance to participate in fun dives every Saturday. In addition, night dives can also be arranged along with other PADI specialty dives (e.g., deep dive), though these do come at an extra cost (please ask for details).

We will introduce you to ecological data entry and you will be responsible for logging the data you collect onto our database. You will also have the opportunity to assist our team in a variety of our core research, management, and conservation projects. Research Assistants undertake regular diving, **though this is only one aspect of the programme.** Additional activities may include the following (some are subject to season):

- Monitoring and maintenance work on our coral nursery and artificial reefs.
- Seagrass surveys and mangrove replanting.
- Participate in local community aquaculture initiatives e.g., help maintain algal farms and/or assist in sea cucumber monitoring (with the opportunity to stay in a fishing village for 1–2 days to help with sea cucumber harvesting/monitoring).
- Assist staff in turtle tagging and release as part of our turtle conservation project.
- Fisheries catch monitoring alongside our fisheries team.
- Environmental education: get involved with our Junior Reef Doctor's initiative and Kids Club.
- Assist in our English-language lessons for local villagers.
- Take part in our tree nursery and reforestation project.
- Learn the local language through our weekly Malagasy classes.



**Further information can be found in the programme schedule provided upon application.**





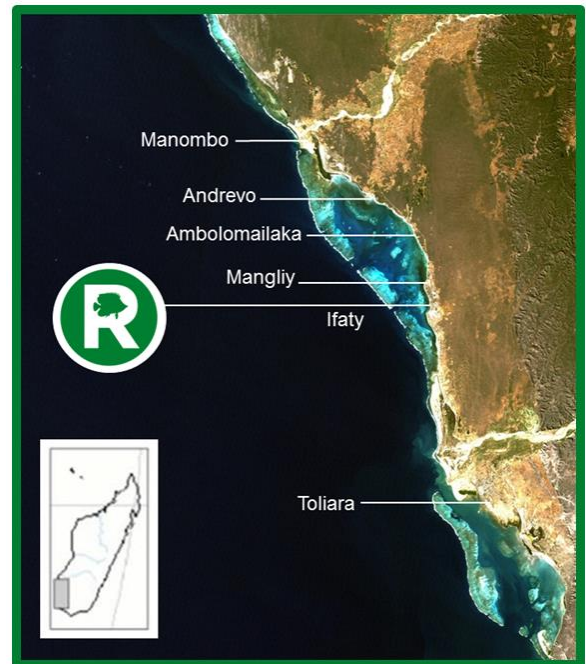
The more you put in the more you get out, we want you to use your enthusiasm, experiences, and qualifications to become involved in our diverse array of projects.

**The longer you stay, the more you can achieve!**



## Where We Work

We work in the Bay of Ranobe, South West Madagascar, a semi-enclosed lagoon extending from Morombe in the north to Toliara in the south. The bay is protected from the open ocean by an extensive fringing/barrier reef system creating a shallow lagoon, 32 km long and 8 km at its widest point. It consists of a diverse range of marine and coastal habitats including barrier reefs, patch reefs, reef flats, extensive seagrass beds, and mangroves. The coral reefs in this region form part of one of the world's largest barrier reef systems, the Toliara Barrier Reef Complex.



These ecosystems, however, are under enormous pressure from a variety of anthropogenic stressors such as over-exploitation, climate change, and sedimentation. Collectively, these stressors are causing widespread degradation to the marine habitats within the Bay of Ranobe and compromising resource availability for the local communities. This is why we are here; please do not expect world class diving on pristine reefs (although the exterior dive sites where we go fun diving are relatively healthy and offer a great diving experience), instead you will be actively contributing to researching, conserving, and restoring degraded reefs.







The Reef Doctor site is located on the periphery of Ifaty village in the south of the bay, 27 km north of the main provincial town of Toliara. Ifaty is a small and traditional Malagasy fishing village; there is no mains electricity or running water, and, like in the other 12 fishing villages in the bay, life there is very basic.

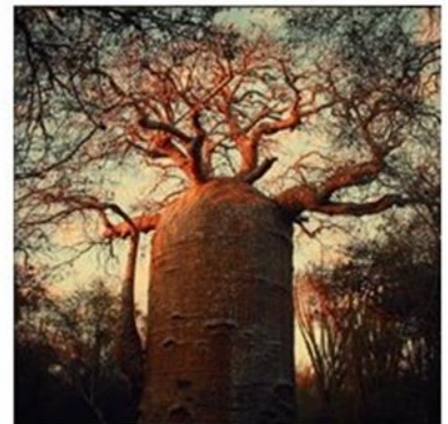
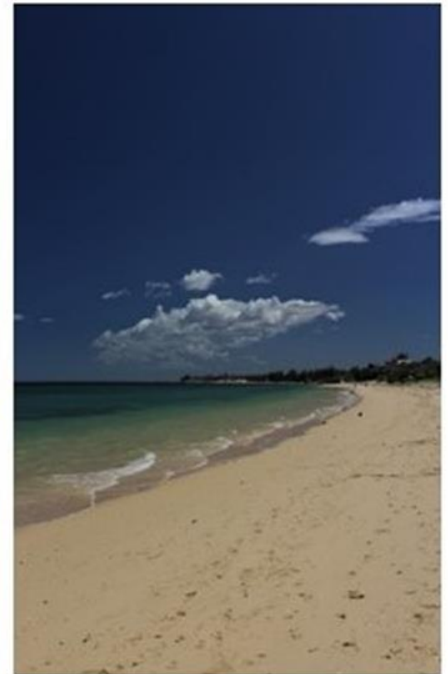
The region we are located in is very arid and desert-like. Behind Ifaty village is the Spiny Forest, considered one of the most unique and endangered habitats worldwide. The Spiny Forest is known for its high rate of endemism; 95% of its plant species are found nowhere else on Earth! It contains a wide range of desert plants such as cacti, shrubs, baobab trees, tamarind trees, and the infamous spiny octopus tree. This habitat also supports many animals including regionally endemic lemurs and tortoises.



The sandy beach outside the Reef Doctor site stretches northwards for miles. After an hour's walk you'll reach Mangily the main beach and diving tourist destination in the region. This region is also an important area for Humpback Whales. Every year (July–Sept), approximately 7000 of these majestic mammals migrate from the Antarctic to breed in the coastal waters off southern Madagascar.









## ReefDoctor Site & Facilities



Our compound is situated on a sandy beach with beautiful views of the Bay of Ranobe. This enclosed area is made up of one main house, eight brick bungalows, eight interconnected single volunteer huts, one dormitory, kitchen/dining area, dive shed, and utility room for the dive compressor and generator. The main house is used as a work area for all volunteers. A generator provides electricity for the compressor, pumping water to the house and bungalows, lighting, charging appliances, and computer/internet use.

Next door to this compound is land belonging to the University of Toliara. Here there are three interconnected single huts (to sleep 6 people in total) and two double huts. This is usually the main staff and intern accommodation. Our newly-refurbished community classroom from which we run all our community education programmes, is also located on this site. Our aquaculture offices are located on the opposite side of our compound on a separate property.







Volunteers sleep in the huts or in the dormitory in the compound. All huts are built from locally-sourced wood and reeds with a cement floor. The dormitory hut has dividers for privacy and plenty of windows for staying cool. Showers are taken in enclosed wooden shower stalls using water from the on-site well. There are two wooden stalls housing hygienic drop toilets.



For an additional cost (£200 per month, £6.66 a day), volunteers may upgrade to one of the beach front brick bungalows complete with en-suite shower and toilet.

We provide meals three times a day, seven days a week. All of our meals are cooked by our Malagasy chefs who serve up a mix of Western/Malagasy cuisine, consisting of the staple Malagasy diet of rice and beans, fresh vegetables, fish, meat, and fruit. We source all of our food locally to generate revenue for local communities. Our drinking water is locally sourced, delivered via traditional zebu cart, and treated on site.









## Daily Life

Our working week runs from Monday to Friday. We offer a 'fun dive' on Saturday, while Sunday is a non-diving day.

The working day can start early (between 5–7 am) because we are dependent on the tides for taking the dive boat out, typically diving takes place in the morning, and then again in the afternoon. We break for lunch at noon, after which we take a break for the hottest time of the day. We start again at 1.30 pm with land based project work or diving.



The working day finishes at around 5 pm. Dinner is at 6 pm before the sun sets - a sight that'll have you running for your camera every night and then it's time to rest and relax under the stars. In addition to diving and other Reef Doctor project activities, you will be expected to get involved with the day to day running of the camp.

Diving, work, and play are our main mainstays. Our schedules have plenty of time for work, fun and relaxation. After all there is no point visiting such a unique place as Madagascar without taking some time to enjoy it!

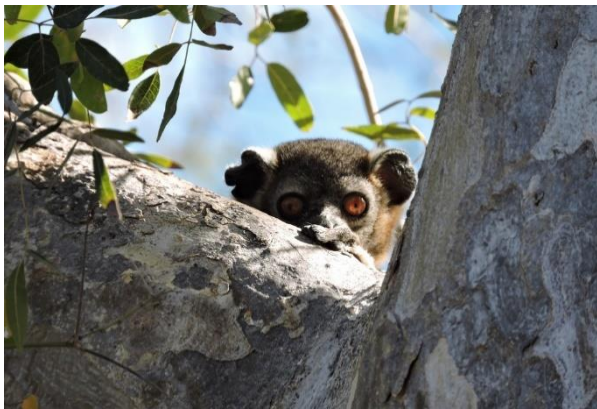






## Weekends

You are free to do as you wish at the weekend; simply relax in the peaceful surroundings on site, go into town for shopping, take a pirogue trip, walk to the popular beach resort of Mangily, visit local parks such as the Spiny Forest, or take a long weekend to go further afield in order to visit one of the regional national parks.







## Exploring Madagascar

Madagascar is an island of contrasts, the landscape, nature, and people change dramatically across the country; there are so many unique places to visit! Therefore, we strongly recommend to schedule in extra time and budget to explore this amazing country after your time with us.





## Safety

Ensuring your safety at Reef Doctor is our top priority. There have been no serious incidents at Reef Doctor during the 13 years it has been operating in Madagascar. Whilst our project site is in a semi-remote location, hospital care is readily available in Toliara which can be accessed under an hour. We focus heavily on accident prevention; providing safety information, training, and advice to all volunteers and staff when they arrive.

We have conducted a full risk assessment of our Ifaty site, and created rules and procedures designed to promote safety and good hygiene in all aspects of our daily life. We keep standard first aid and diving medical supplies on site, and all of our staff are trained in the provision of emergency first aid and what to do in diving emergencies.

Due to our semi-remote location, we have introduced a series of safety procedures designed to minimise risk at all times. All of our diving is run under the strict guidelines laid down by PADI International, with additional specific rules and regulations created by ourselves for operating in this area. All rules and regulations are enforced at all times by the dive officers and boat captains. A copy of our dive regulations is given to each person entering our camp, and training in our emergency procedures is completed before working diving commences.







All of our diving equipment is serviced regularly and meets the necessary diving safety standards. Oxygen and first aid equipment is taken on every dive with emergency drill practices conducted monthly for staff and volunteers. We keep a 75 L and 15 L oxygen cylinder on camp and have two 5 L tanks for use on our dive boats.

Reef Doctor's main buildings and facilities are enclosed within a compound which is guarded at night by three local security personnel.

Working in a remote location means that we need to ensure that when help is needed we can contact the right people quickly. We keep the following ready for emergency use at all times:

- VHF radios, one base station in camp and one on each dive boat.
- Mobile phones, one in camp and one in each boat.
- Emergency first aid materials (neck and leg braces, spine board, bandages etc.).

For our emergency plan and evacuation procedures, we liaise with the Divers Alert Network (DAN) in Europe and South Africa. Our evacuation plan is reviewed monthly to ensure that information is correct and training is up-to-date. All volunteers and staff receive training on the plan on arrival.





## South West Madagascar Climate

Month	Season (according to European season)	Malaria Risk	Average Day Temp °C	Average Night Temp °C
<b>January</b>	Summer (cyclones)	High	36	33
<b>February</b>	Summer (cyclones)	High	40	35
<b>March</b>	Summer	High	38	30
<b>April</b>	Autumn	Medium	35	28
<b>May</b>	Autumn	Medium	30	20
<b>June</b>	Winter	Low	26	17
<b>July</b>	Winter	Low	23	15
<b>August</b>	Winter	Low	23	15
<b>September</b>	Spring	Low	25	20
<b>October</b>	Spring	Low	25	25
<b>November</b>	Spring	Medium	30	28
<b>December</b>	Summer	Medium	32	28





## Research Assistant Expedition Start Dates 2020

Unqualified divers	PADI Open Water and Advanced (or equivalent) qualified divers
13 <sup>th</sup> January	20 <sup>th</sup> January
2 <sup>nd</sup> March	9 <sup>th</sup> March
6 <sup>th</sup> April	13 <sup>th</sup> April
4 <sup>th</sup> May	11 <sup>th</sup> May
8 <sup>th</sup> June	15 <sup>th</sup> June
6 <sup>th</sup> July	13 <sup>th</sup> July
3 <sup>rd</sup> August	10 <sup>th</sup> August
7 <sup>th</sup> September	14 <sup>th</sup> September
5 <sup>th</sup> October	12 <sup>th</sup> October
2 <sup>nd</sup> November	9 <sup>th</sup> November
7 <sup>th</sup> December	14 <sup>th</sup> December

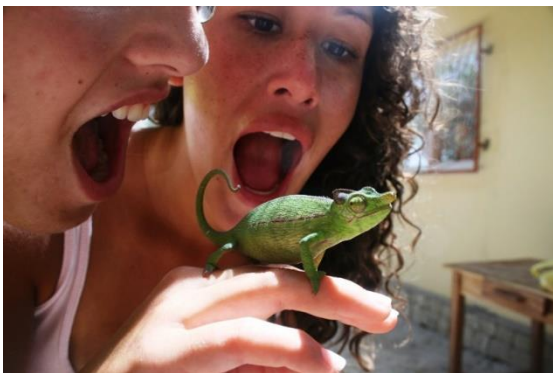


**N.B.** These dates are when the programme commences so you need to arrive at our site ideally the day before. This means arriving at the capital Antananarivo two days before the start date.



## Research Assistant Expedition Fees 2020

Duration	Non-Certified Divers	PADI Open Water Certified	PADI Advanced Certified
<b>6 weeks</b>	£2100	£2000	£1900
<b>8 weeks</b>	£2500	£2400	£2300
<b>12 weeks</b>	£3000	£2900	£2800



**N.B.** £350/wk for 6 weeks, £312.50/wk up to 8 weeks, and only £300/wk for stays up to the full 12-week expedition; so the longer you stay the cheaper each week gets!

7, 9, 10, and 11 week expeditions are also on offer, prices can be given upon request.

PADI Rescue Diver and EFR (first aid) certification costs £250 extra (includes PIC cards for both courses) for all those wishing to do this and staying for 8+ weeks.

The total cost of a **12-week tailored Research Assistant PADI Divemaster programme** is **£3600**. This fee includes the PADI Rescue and EFR courses, and PIC certification cards. **N.B.** This cost **DOES NOT** include the cost of the PADI Divemaster manual (£120 avg.), Rescue and EFR manuals, or the PADI Divemaster certification PIC card/membership (£100). Costs for manuals and PIC/membership fees do differ between countries. Volunteers must be already PADI Advanced Open Water certified before joining this tailored programme.





## Services Included in the Expedition Fees

- Airport pick-up in Toliara and transport to the Reef Doctor site in Ifaty.
- Arrangement of hotel in the capital city Antananarivo, if required.
- All meals, Monday–Sunday.
- Filtered water, brewed local coffee and tea.
- Lodging: with bed sheets, pillows, and mosquito net provided.
- Standard first aid medical care.
- Electricity for charging cell phones, laptops, etc. (limited to weekdays).
- Internet access on site (limited to weekday lunch times for personal use).
- Dive training: PADI Open Water and Advanced dive certification included in the costs for all expeditions.
- Project equipment and educational materials: dive slates, paper, pens etc., all required for your working activities.
- Dive equipment, including: BCD, full regulator set, weights and tanks.
- Occasional excursions to help some of our conservation partners in the area, such as HONKO (mangrove conservation and re-plantation).
- Science training: level of training will vary according to the expedition duration, dive certification, and progression of the individual.
- Pre-departure support and pre-departure guides: advice on flights, equipment, Madagascar, medicals, vaccines, insurance etc.
- UK based support/communication throughout the expedition for the volunteers' friends and family.
- Fuel, equipment, and staff (international and local) to make this all happen!



**Your financial contribution not only funds your own living and work activities with us, it also contributes to our conservation projects and allows us to employ local staff to support our work.**



## Services Not Included in the Expedition Fees

- Round-trip airfare (your flight ticket must be a return ticket; you cannot enter the country on a single flight ticket!).
- Visa (visa bought on arrival at Madagascar International airport).
- Hotel stay and food in the capital (and in Toliara if required) on arrival and departing from Madagascar.
- Taxi between hotel and airport in the capital for flight to Toliara.
- Diving medical Insurance.
- Travel insurance.
- Vaccinations.
- Completion of Reef Doctor standard recreational dive medicals (forms provided by us to be filled in by a medical professional which may incur a fee. However, we recommend trying your family doctor who may agree to do this for free).
- PADI dive instruction manuals and PIC cards: all participants in the dive training courses **MUST** purchase their own manuals, as per PADI International Rulings May 2006, and bring these materials with them. PADI PIC-cards are required to process each level of the PADI courses we offer - for all volunteers doing these courses PIC cards cost £30 (33 Euros) per course and this will be added to your expedition invoice.
- Basic dive gear - all volunteers must bring their own wetsuit, mask/snorkel, fins and booties, time piece and/or dive computer.
- Personal leisure activities and excursions (often groups of volunteers plan excursions to nearby national parks or other areas of interest).
- Anti-malaria drugs.
- Extra PADI dive courses (e.g., night dives, deep dive).



**Further breakdown of the additional costs will be provided upon application.**





## Why Choose Reef Doctor?

- On average, **80%–90%** of your expedition contribution goes directly into our conservation work and the local economy in Madagascar.
- Our core staff are professionals in their respective fields, their knowledge and experience will be passed on to you throughout your expedition.
- Malagasy culture is vibrant and memorable. During your stay you'll experience it first hand; through getting to know our local Malagasy staff members, visits to Ifaty village and surrounding areas, and from participating in our education, research, and development projects.
- A Reef Doctor expedition attracts people from all walks of life and all over the world. You will make new friends with whom you will share memorable life experiences.
- Our work is part of a larger, global effort. It helps develop an understanding of marine resource management in developing countries and contributes scientific information to a much wider conservation community.
- Our programmes are designed with the community at their heart; our work is directed at helping local communities develop and grow while conserving their culture and resources. A Reef Doctor expedition is all about making a difference and you'll be contributing to helping us fulfil our long term ecological and social objectives in the Bay of Ranobe.
- As a Reef Doctor volunteer you'll learn new skills, walk away with new experiences and a whole new level of scientific knowledge, and ultimately, you'll have contributed to helping protect threatened marine ecosystems and the future livelihoods of the local Vezo people.





## Application & Contact Details



To apply for the Research Assistant programme please visit our website:

**[www.reefdoctor.org](http://www.reefdoctor.org)**

For further information or if you have any questions please contact us:

**Email:** [volunteer@reefdoctor.org](mailto:volunteer@reefdoctor.org)

**Speak directly to someone from our UK headquarters:**

+44 (0)7866 250 740

+44 (0)1756 380 198

**Skype username:** reefdoctor

