



CONSERVATION: CORAL REEF PROJECT IN BRUNEI

ADDITIONAL INFORMATION

BRUNEI IS THE GATEWAY TO BORNEO ... AND ABSOLUTELY GORGEOUS!

Locally known by its full name **Brunei Darussalam**, it is here that you can get from city to rainforest by boat in less than two hours.

You may not have heard of Brunei before (...it's *not* in the Middle East, as many people think!). This tiny country is situated on the wonderful island of Borneo amid rainforest, tropical beaches and other areas of outstanding beauty



The capital, **Bandar Seri Begawan**, is a modernised centre with large public buildings. The rest of the country: 70% of beautiful, untouched jungle.

SET IN A MARINE PARADISE OFF THE COAST OF BRUNEI DARUSSALAM!

Because they are not commercially exploited, Brunei's coral reefs remain in relatively good condition and are among the least threatened in this region. Only about 21 % of Brunei's coral reefs are at risk from human activities, particularly from sedimentation as a result of upland activities. Recent surveys have found coral reefs in Brunei to be relatively undamaged and have a high diversity. The stony corals discovered to date number 185 species, in 72 genera. It is also home to a variety of attractive and unique soft corals. The surrounding waters are also a habitat for three turtle species - the Hawksbill turtle, Green Sea Turtle and the Olive Ridley sea turtle.

YOUR WORK

You will take part in a research project run by the University of Brunei, the objective of which is to map the coral diversity of several reef locations within the southern part of the South China Sea. You will go out on a University boat and will dive with a marine biologist and crew. During each field trip you will collect and photograph specimens for taxonomic identification. The waters are shallow and an entry level diving qualification (e.g. PADI Open Water Diver) is sufficient to undertake field trips. Field trips take place once or twice per week to various reefs and islands, just off the coast of Brunei such as **Little Dale Shoal, Abana Rock, Pelong Rocks** and **Two Fathom Rock**. This is a beautiful location on the island of Borneo.

After the trip, you will work in the university Laboratory to identify the specimens using taxonomic identification keys using a CDROM and/or comparison with slides. You will of course receive prior instruction on how to do this. Results will be recorded in order to update the survey. Occasionally you may prepare some specimens for display in the museum.

You will need to be a qualified SCUBA diver to take part in this project, but if you don't already have this qualification then we can arrange for you to take an Open Water PADI course on your arrival into Brunei (subject to additional cost).

The Principal duties that you will take part in are:

- Assist with field trips
- Collect and/or photograph specimens



- Identify specimens
- Record research data and update the existing survey results
- Prepare specimens for display

Other duties:

- Assist marine biologist generally
- Prepare boat and dive equipment for field trips
- Wash and put away boat and dive equipment after trips

Other information:

- In order to dive you must arrange prior diving insurance e.g. DAN (Divers Alert Network www.daneurope.org) SCUBA diving equipment is supplied.
- You should be comfortable going out in small boats.
- The South China Sea is usually mild in the diving months and field trips are done when sea conditions are favourable but choppy seas are a possibility.

Induction:

You'll be given an Induction before you start work on your project, and some of this will include a tour of the town and the area, plus in-depth information about the local culture. You'll also be guided on what to do, what not to do, how to dress, how to behave, as well as useful local information like banking hours, etc. Before starting work on this project you will be taken on several assessment dives to ensure that you are a competent diver and capable of doing the work involved.

ACCOMMODATION: Most volunteers in Brunei are accommodated together in an apartment close to the centre of Bandar Seri Begawan, which makes for a sociable placement. Alternatively, you can be accommodation with a local expatriate family, one of whom may be a teacher. Your accommodation in Brunei will be very nice and of a relatively luxurious standard, usually with air conditioning and all other modern amenities. There are about 10,000 expatriates in Brunei most of whom live there because the lifestyle is so enjoyable.

Climate: The climate is hot with high humidity and heavy rainfall. There is no distinct wet season, rainfall occurs throughout the year, but is heaviest between September and January. Temperatures are constantly between 24 and 31 degrees Celsius and with the average humidity at 79% this tropical country is a pretty warm and sticky place to be!!

General Information on Coral Reefs in Brunei Darussalam:

Reefs around Brunei are generally quite shallow, have excellent fish and coral life, and are good for training and open water dives. Brunei also has a number of diving clubs and dive operators offering some of the cheapest diving in Borneo. Brunei Bay and the waters outside are sites of some excellent wreck diving (WW2 and recent) if you want to try something a bit different! There are three different types of things to explore:

Reefs: Out to sea towards the Malaysian island of Labuan, **Abana Reef** is often used as a second dive site for a shallow dive after a deeper wreck dive. Once again this site is very much alive with whip corals and Anemones, but the visibility is generally only average so you don't really get an overall view of the beauty of the reef, which is a shame.



A tiny outcrop of rocks just offshore of Brunei called **Pelong Rocks**, is home to a light beacon and nesting Sea Eagles on the surface, and plentiful corals and fish below. There is a surprising amount of life here, especially Anemones and various kinds of Clown Anemone fish. Unfortunately, being so close to shore it is subject to bad visibility, fairly strong currents and a fair bit of surge in the shallows. But, if you time your tides correctly, it is not a bad site for a first dive experience.

Rigs: As oil is the main source of income for Brunei, there are quite a few offshore oil rigs and quite a few of them are accessible to divers. They are rich in marine life, acting as man-made reefs and giving homes to many hard and soft corals.



Through rig diving, one can discover new dimensions to diving. These approximately 50 metre long triangular oil rig jackets were placed strategically on the seabed at **Two Fathom Rock** to foster marine life. The

result is a breathtaking sight of soft corals, Groupers, Sponges, Featherstars and other colourful organisms. Schnapper, Barracuda, Sweetlips and schools of Jacks are among the inhabitants of these man made reefs. Whale sharks can sometimes be seen on the reef.

Wrecks: These are Brunei's major attraction. There are three wrecks dived regularly, including two Second World War wrecks, an American minesweeper and one of the infamous "hellships". The third, known locally as the "Cement " wreck is a veritable underwater garden of soft corals, anemones and the like. The wrecks are not affected by river run-off and generally have excellent visibility.

Feedback from a volunteer on a Typical Work Day:

The first thing to say is that each day can be different from the next. Basically we have two types of days – boat days and lab days. On boat days we put in or maintain equipment or do research work on one or more of the research sites and most of the day is spent outdoors. On lab days, we identify and catalogue the specimens we collected on boat days and enter the data in the projects records among other things. Each boat day generates a few lab days worth of work. We then get ready for the next boat day.

A day in the life of a Marine Research Assistant on the coral reef project

- Wake up at about 7.30, have breakfast and collect or make a packed lunch.
- Get picked up to go to the research store to collect diving gear and research tools like baskets, tags, ID cards, ropes, floats, GPS etc. Load it up in the University 4WD. Normally we'd help the technician hitch up the boat trailer to the car but as the boat was in for repairs we went to the Royal Brunei yacht Club to meet the TWW manager who would take us in another boat. When we got there we unloaded the gear onto the jetty and put it on board the boat
- We left at about 9.40 to go Abana Rock. As we went out through the channel we came upon the *Shenzen* a Chinese destroyer leaving after a goodwill visit to Bandar. A pretty impressive sight it was too with its helicopter, deck guns and 16 missile tubes. We took photos of them and they returned the compliment clicking away at us!!
- We then raced off to Abana but a heavy rain shower and wind persuaded us to divert to Pelong Rocks a more sheltered site. We thought we were in for a wet day's work but the old hands told us that the rest of the day was probably going to be lovely and sunny.
- Twenty minutes after anchoring off Pelong we were sitting in warm sunshine and Matt decided to sun bake on the foredeck to work on his tan. The rest of us tucked into a very early lunch of sandwiches and Pringles crisps – the staple snack of research assistants.
- We were not collecting, photographing or tagging any specimens today. Instead we were putting in permanent quadrants– 2x2 squares within which we would later identify all the species by taking small specimens and photograph. This data is compared with other quadrants at the same location and with other locations on different reefs to show the biodiversity, rates of growth and coral cover. This will enable the project to assess the health and condition of the reefs and sound an alert if they are endangered.
- While we got our diving gear ready, David the marine biologist went for a quick snorkel to select the sites for the quadrants. When he returned we kitted up and rolled off the boat. The boatman then passed us the tools of our trade – a mallet, steel uprights with clothes pegs and plastic tags to mark the sides of the quadrants.
- The water was clear all the way to the bottom and visibility was about 20 meters. We swam over to the sites and after deciding where to place the uprights began hammering them into the seabed. This was quite funny as we had no experience in being underwater tradesmen. David said afterward that we looked like we were in outer space – every time we struck the upright with the hammer we shot off upwards as Newton's Third Law of motion took effect. Getting the upright in was a slow process this way. More weight on our belts was the answer and David showed us how to use a hammer underwater.
- After the first quadrant was in place, we surfaced for



lunch and more Pringle's crisps. Matt continued to work on his tan as the rest of us talked at the back of the boat watching the birds, terns and sea eagles wheel over the islet and the waves breaking over the reef.

- After lunch we motored slowly to the northern end of the reef and dropped the anchor taking care to drop it in a sandy patch and not on one of the large table corals that are in this area and are hundred of years old. Some of these corals were present when Magellan's vessels sailed out of Brunei in 1521 during the first voyage around the world. The keel of his ship would have passed close above them.
- An inspection of the anchor site revealed schools of blue and yellow fusiliers, striped sergeant majors and many brightly coloured reef fishes. A large cuttlefish (relative of the squid) bigger than a rugby ball hovered inspecting the intruders before jetting off at great speed. There were plate corals, table corals almost as large as the boat and stag horn corals as well.
- Russ was first in the water and munched Pringles' crisps while waiting for the others. We offered him the container and suggested that he feed his little fishy friends. His eyes lit up at the idea of feeding a rainbow cloud of fish. What a dilemma! In the end the fishes were deprived of the opportunity to sample Pringles' Original flavour crisps
- Once the other quadrant was in we called it a day and surfaced. They next time we come we will photograph the corals and then collect and tag small specimens. The work over Matt continued the tanning process while others swam around. After a while we headed back to the Yacht Club where we unloaded the boat and brought back the gear to the store before heading home to relax.

Days off

There are lots of nearby beautiful islands and beaches to visit on days off, such as Monkey beach-where monkeys live wild in trees up above and the Rusukan Islands.

BRIEF INTRODUCTION TO BRUNEI:

Brunei is situated just north-west of Borneo, with the South China Sea at its north and the Malaysian State of Sarawak surrounding all other sides. The climate is hot with high humidity and heavy rainfall. There is no distinct wet season, rainfall occurs throughout the year, but is heaviest between September and January. Temperatures are usually between 24 and 31 degrees Celsius and with the average humidity at 79% this tropical country is a pretty warm and humid place to be!!

This small Islamic country has derived much of its wealth from its precious oil reserves, but any association with the Middle East couldn't be further from the truth. A warm climate encourages an outdoor lifestyle within Brunei and sports such as Sailing, Windsurfing, Scuba Diving and Running are popular. As the majority of the population live across the coastal strip, access to beaches and water sports is relatively easy.

Brunei's location provides an excellent base from which to travel further into the surrounding areas of Sabah and Sarawak, often referred to as the Heart of Borneo. The obvious western influences throughout Brunei make it the perfect mix of East meets West – an excellent destination to visit.

MONEY - COST OF LIVING:

- Can of coke = B\$1 (34p)
- Reasonably good Western meal (chops, steak, schnitzel + 2 veg) = B\$ 7 to B\$ 12 depending on place (£2.40 - £4.10)
- Very Good Asian breakfast (roti/tea etc) = B\$ 2 (68p)
- Reasonably good Asian meal (stir fry rice/noodles and meat dish) =B\$ 4 – 6 (£1.36 - £2.05)
- Western breakfast (sausage, eggs, baked beans) = B\$ 3-4 (£1 - £1.40)
- SUGGESTED POCKET MONEY - £150 – £250 per month (more if you are planning on travelling around at weekends)



CLIMATE:

The climate is hot with high humidity and heavy rainfall. There is no distinct wet season, rainfall occurs throughout the year, but heaviest between Sept and January. Temperatures are constantly between 24 and 31 degrees Celsius and with the average humidity at 79% this tropical country is a pretty warm and sticky place to be!!

THE NEXT STEP

If you would like to join us on one of our exciting projects then please fill in either an online application form at our website (www.travellersworldwide.com) or one that is attached to our brochure. Once you have booked and confirmed your place we will send you detailed pack information regarding your placement and country.

I do hope you join us and please do call or email if you have any questions at all about this or any of our other projects – 01903 502595 or email info@travellersworldwide.com

If you would like to know more about Travellers in general, or about any of our other projects we run in over 18 countries worldwide, please visit our website at www.travellersworldwide.com

TRAVELLERS WORLDWIDE

7 Mulberry Close
Ferring
West Sussex,
BN12 5HY, England
Tel: +44 (0)1903 502595
Fax: +44 (0)1903 500364
Email: info@travellersworldwide.com



Travellers are very proud to introduce their new Division, TEFL Time! Get qualified to teach English as a Foreign Language. TEFL Time runs professional UK based weekend and online courses - see www.tefltime.com for details.

