

# MARINE CONSERVATION EXPEDITION IN MEXICO

## OVERVIEW

Are you passionate about protecting the world's oceans and preventing environmental issues like plastic pollution and coral bleaching? The Mexican coastal area known as the Riviera Maya, is one of the most unique and important habitats in the world. It is home to one of the largest coral ecosystems around the globe as well as critically endangered species such as the Hawksbill sea turtle. Human factors affecting this habitat include unsustainable fishing methods, unregulated property development along the coastline, unchecked tourism activities, and climate change. Since 2018, a new coral illness, known as white band, has caused fatalities in over 40% of Caribbean coral in one year.

Volunteers on this program will contribute to conserving the reef by conducting surveys to determine the health of the reef and growing coral fragments in a laboratory for transplantation onto the local reef to assist with recovery. They will also assist with minimising marine plastic pollution by collecting waste from local beaches and the ocean floor and then recording data on the waste collected. From May to October, they might also participate in a sea turtle monitoring program, depending on the needs of our local partners at the time. Engaging local students, businesses, and community groups, as well as international visitors in environmental education workshops is also an important year-round component of this program.

Your program will start with our professional diving staff and marine conservation experts providing you with the necessary training. Learn how to conduct underwater survey while preventing any harm to the reef. During this time you will be earning your PADI Advanced Open Water Diver and the PADI Endorsed Coral Reef Researcher Distinctive Speciality. This PADI Speciality was developed by us in collaboration with PADI and is exclusively available on THE NGO marine conservation programs.



## HIGHLIGHTS

- Preserve the unique ecosystem of the Mesoamerican Barrier Reef.
- Participate in a range of other impactful marine conservation initiatives.
- Contribute to UN SDG #14, Life Below Water.
- Learn to dive in the tropical waters of the Caribbean sea.
- Earn your PADI Advanced Open Water Diver and PADI Coral Reef Researcher Distinctive Speciality Certification.
- Make new friends when you work with a group of like-minded individuals from around the world.
- Immerse yourself in Mexican culture, learning the language and sampling authentic Mexican cuisine.



## LIFE ON BASE

Live on the beach a few metres from the Puerto Morelos National Park Reef and a 15-minute drive from downtown Puerto Morelos. Situated in the stunning Puerto Morelos, the oldest porteño community in the Mexican Caribbean, this site allows for some fantastic diving. A typical day may involve diving, lab work, training on base, community days, and beach cleanups. Days are rounded off with evening debriefs, followed by dinner and time to relax, taking in a beautiful sunset and sharing stories with your fellow team members.

## ACCOMMODATION

You will live in shared accommodation, along with the other volunteers. The accommodation features shared facilities such as a communal kitchen, work area, and living space. We aim to leave as small of a footprint as possible on the environment which means we keep facilities basic. There is bottled water available for cooking and drinking, and participants share base duties including cooking, cleaning, gear and equipment maintenance, and other chores. Curfew is at 11 pm all days.

## MEALS

Volunteers prepare breakfast in groups from our choice of cereals, pancakes, eggs and porridge. During work days lunch and dinner is prepared by a local cook, and on weekends, participants cook their own meals. Food is a very basic, mostly vegetarian diet, with meat available about once a week. Lunch is beans, vegetables, pasta, and a typical evening meal may include lentils, pasta, beans, rice and vegetables. Local restaurants are also an option at your own cost during weekends. Conveniently, restaurants and supermarkets are walking distance from base.

## COMMUNICATION

You will have limited access to long-distance communications whilst on the program, so make sure friends and family know how often they can expect to hear from you. Mobile phone reception is available on base, although it can be poor at times. It is possible to buy a Mexican SIM card and phone credit at the airport which can be used with your unlocked cellphone. Internet connection is available at base, but alternatively, you can purchase a pocket WIFI device which can then be topped up with mobile internet.

## CLIMATE

Puerto Morelos is on the Riviera Maya, known for its tropical climate. The ocean is rather warm, which make it perfect for swimming, paddle boarding, snorkeling, and diving. The temperature remains fairly constant throughout the year, roughly 26°C or 80°F.



## PROJECT OBJECTIVES

Puerto Morelos is the oldest port city in the Mexican Caribbean. The port has been used since the time of the Mayan empire, but its history as a modern port began in 1898. It was built to enable the exportation of gum from the gum tree and the wood of the dye tree, an activity that together with fishing were the main productive activities in the area.

The area has a unique diversity of ecosystems including low evergreen jungles, low swamp jungles, savannahs, coastal dunes, mangroves, cenotes, beaches, marine grass, and coral reefs. The reef of Puerto Morelos is part of the Mesoamerican Reef System, MBRS, considered the second largest reef barrier in the world and home to thousands of marine species.

Today, Puerto Morelos is part of the 120 kilometer tourist corridor, located between Cancun and Tulum. Tourism is the main economic activity of Puerto Morelos and continues to grow due to the development of large hotels as well as holiday housing along its coast. Local tour operators offer scuba, snorkelling, and free diving tours in the Caribbean Sea and reef lagoon, tours of or diving in cenotes close to the town, as well as sport fishing tours.

Fishing is the second most common commercial activity after tourism. Fishermen fish using small skiffs collect many commercial Caribbean fish species and lobster. Local fishing organisations are aware that unsustainable fishing leads to a destruction of the reef, and therefore loss of fishing resources as well as harm to ecotourism activities.

THE NGO assists our partners in Puerto Morelos with collecting and collating data to assist decision makers in coastal zone management. We assist them with the manpower, logistical resources, and, in the case of the THE NGO Trust, finances.

### Fish and Coral Surveys

We have several monitoring sites that we survey each year. At each monitoring site, we do 10 adult and juvenile fish transects and five coral community and point intercept transects. The data on fish we gather helps us determine the abundance and the size of fish and understand the changes in the fish community dynamics. The data on coral, and other sessile organisms like sponges and mussels, is used to understand the rate of recovery of the reef and its overall health. For four week short term interns the surveys will be simpler as we aim to gather high-quality data by focusing the learning on fish species while touching on other topics such as coral species. The aim of this is to collect biomass data and information on coral illnesses and bleaching.

### Turtle Monitoring

The National Park of Puerto Morelos is abundant in seagrass which is one of the favourite meals of green sea turtles. THE NGO participants assist with monitoring sea turtle populations by taking pictures of them while snorkeling and diving. This helps with identifying both new and returning sea turtles. Sea turtle nesting season is from May to October.



## **Invasive Lionfish Monitoring and Eradication**

Lionfish are an invasive species in the Mexican Caribbean. Lionfish eradication activities are carried on in coordination with local environmental authorities. Local authorities conduct lionfish spearfishing tournaments throughout the year in which we can participate or they assign us dates to carry out lionfish eradication on specific areas of the reef. Please note that this activity does not happen all year long.

## **Incidental Sightings of Megafauna**

Every time we go on a dive we look for megafauna species such as sharks, dolphins, manatees, sea turtles, eels, and rays. We then input sighting of these species into our database. The presence of these species can be indicators of the health of the reef and general biodiversity.

## **Plastic Pollution Cleanup**

We have weekly beach cleans where we collect the rubbish that washes up on our beach and classify it into different categories depending on their source. This information is recorded and sent to our partners for analysis.

## **Environmental Education**

They also assist the community by conducting environmental education programs. The town of Puerto Morelos was once a fishing village, but is now part of one of the largest Marine Parks in Mexico. Fish is still an important food source in the community and fishing a common means of earning an income. Sustainable fishing methods and other means of protecting the natural environment are vital to maintaining the marine abundance that makes both fishing and international tourism profitable. Teaching young people and tour operators the importance of protecting their marine resources and how this can be done is vital to ensuring the future health of the reef off the coast of Puerto Morelos.

All these initiatives allow us to offer support to the conservation work, the community and our local partners, and to address many of the UN Sustainable Development Goals, such as #4 – Quality Education and #14 – Life Below Water.

Please note: Both conservation- and community-focused programs are offered at this location.



## **Puerto Morelos Marine, Long-term Objectives**

1. Provide data to our partners on the overall health of the reef, to be used for coastal management within the coral reefs of Puerto Morelos National Park, and collaborate in the coral restoration project.
2. Raise environmental awareness with the community in Puerto Morelos.
3. Minimise the environmental impact that visitors and other people have within the national park
4. Increase in-country capacity within our partners and community members in the coral reefs of Puerto Morelos National Park

## **WHAT'S INCLUDED**

- 24-hour emergency phone
- 24-hour in-country support
- Airport pick-up (unless otherwise stated)
- All necessary project equipment and materials
- All necessary project training by experienced staff
- Application fee forEFR certification
- Location orientation
- Long term experienced staff
- Meals while on project (except on work placements for long term internships)
- Real hands on experience and learn about the challenges of marine conservation has in this region
- Safe and basic accommodations (usually shared)
- Welcome meeting

## **WHAT'S NOT INCLUDED**

- Additional drinks and gratuities
- Application fee for Divemaster certification
- Extra local excursions
- Flights
- International and domestic airport taxes
- Medical and travel insurance
- Night dive (your responsibility to arrange before certification can be processed)
- Personal dive kit, e.g. mask, fins, wetsuit, timer, DSMB and reel, slate, etc.
- Personal kit
- Police or background check (where necessary)
- Visa costs