

Mexico's Cozumel

— *Conservation & Stewardship of Coral Reefs*

Text and photos by Brandi Mueller





As our boat headed to the dive site, it was hard to imagine the previous year. With the island of Cozumel to my back, the 180-degree-view of water in front of me was filled with dive boats. While sometimes in the past I would be annoyed to see so many other divers, it was a relief to see all the boats, and it gave me a bit of hope for the future of the dive industry as the pandemic (hopefully) comes to an end. If it is open, they will come.

While tourism was way down throughout 2020 and the first half of 2021, from what I saw around me, it seemed to be making quite the comeback in Mexico. Dive boats were full, restaurants busy, taxis abundant. The first cruise ship returned during my week in Cozumel, and while there is a risk of too many divers and tourists causing harm or damage to the reefs and environment, Cozumel seems more than ready to get back at it, in the safest way possible.

In normal times, the popular dive location usually receives around 1.8 million tourists a year. While Cozumel is the largest Caribbean island in Mexico, it is only 48km (30mi) by 16km (10mi), and is located 81km (52mi) south of Cancun. In the past, the dive community and government have recognized that keeping the environ-



ment healthy is important not only to the planet, but to continued tourism, which brings in much of the island's economy.

Back-rolling into the warm water, it was immediately evident why Cozumel is such a popular place to dive. A gentle current made it effortless to swim past the colorful reef, which seemed



Lobsters on a ledge (above), coney grouper on reef (top right), French angelfish among sponges (top left), spotted drum (center) and gray angelfish (previous page) at Cozumel in Mexico

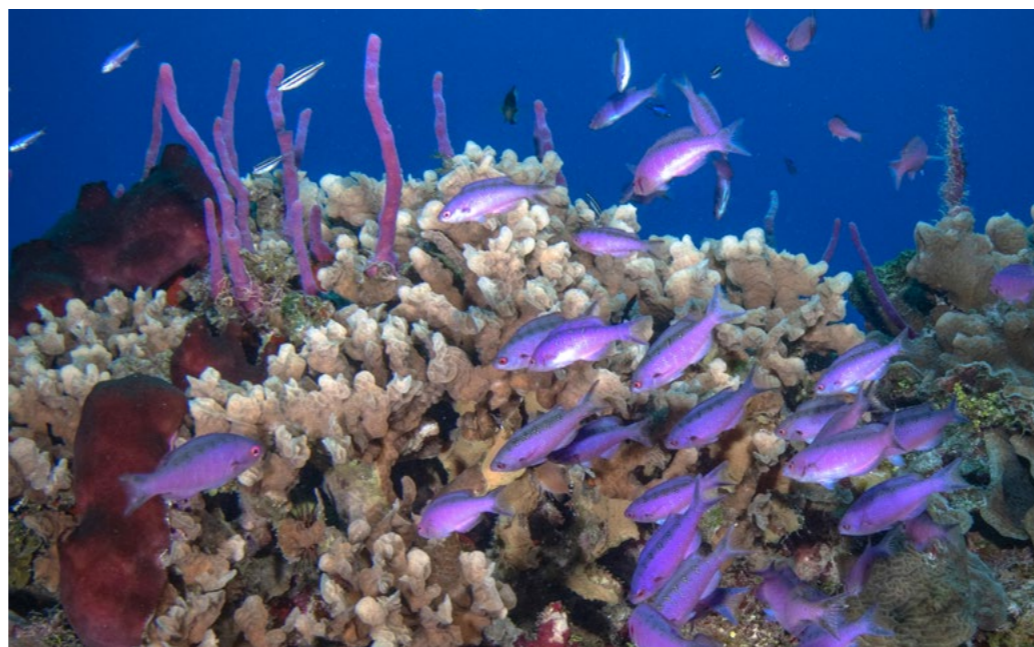


island's population, and the locals seem to understand that no reefs mean no tourists, which means no money. Parque Nacional Arrecifes de Cozumel (Cozumel Reefs National Park), established in 2006, covers most of the southern part of the island, consisting of around 12,000 hectares (29,600 acres) of sea and coastline. It is estimated over 105 coral and over 260 fish species can be found here. There is a daily fee (currently US\$4.50) for those entering the park, which is used to support the national park system in Mexico.

The marine park's rules prohibit:

- Standing or touching coral reefs
- Fishing, collecting or disturbing any marine organism
- Use of sunblock that is not biodegradable
- Gloves or knives
- Feeding any fish or animals
- Disposing of any waste or dumping fuel, oil or any liquid substance ¹

¹ [HTTPS://THISISCOZUMEL.COM/THINGS-TO-DO/DIVE/368-MARINE-PARK-RULES](https://thisiscozumel.com/things-to-do/dive/368-marine-park-rules)



Proactive guides

Throughout my week, I was impressed multiple times at how the dive guides not only preached the marine park's rules and protection measures, but they also practiced them. I saw two separate incidences where divers were having some issues in the water, one falling into the bottom and the other kicking the reef. In other places, I have seen this happen, but the dive guide just goes

on with the dive—maybe saying something back on the boat after the dive. But in both times this occurred in Cozumel, the dive guides of Salty Endeavors politely showed the diver what was wrong (cloud of sand, sinking, etc) and fixed the problem as soon as they saw it.

In one case, weight was removed (and carried by the dive guide for the rest of the dive), so that the diver was no

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Parrotfish (above); School of Creole wrasse on reef (left); View of Cozumel from Punta Sur (top left); Tube blenny (far left)





Bright orange sponges on reef (above); Hawksbill sea turtle resting under a ledge (top)

longer overweighted and bouncing off the bottom. In the other case, the dive guide just pointing out to the diver his fins and where they were made the diver aware of his surroundings and stopped the issue. Back on the boat, the dive guides also talked with these divers in a way that impressed me, because it was not pretentious or scolding, but respectful, talking through what was going on and how to solve the problem. (I can recall other situations in the past when dive guides yelled at divers. Making someone feel bad usually does not help the problem, but only makes them mad, and they do not learn how to fix the problem, preventing issues from occurring again the next time). I was impressed.

Palancar Caves

On my second day of diving, we visited the beautiful Palancar Caves, which have lots of large coral structures and swim-throughs with bright orange tube sponges and deep maroon sea fans. A school of snappers were in formation as we swam under a coral ledge, and they hardly moved as we passed them. At another point, a hawksbill sea turtle was resting on a ledge, also unconcerned by our presence.

Toadfish

Our next dive was a shallow reef with a little less current. I had the splendid toadfish on my bucket list of fish to see. Thought to be endemic to the island, they have since been documented off Cancun and as far south as Honduras, but in Cozumel they were more common.

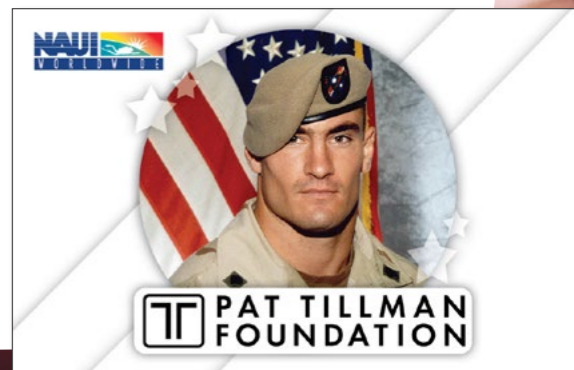
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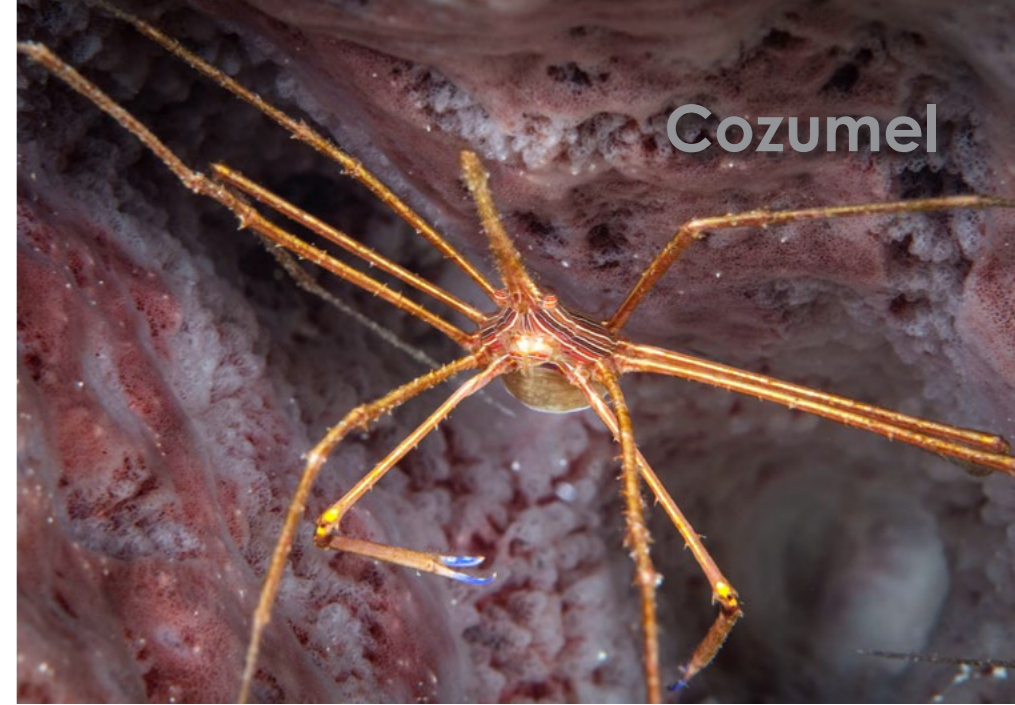
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Splendid toadfish with mouth open to be cleaned by shrimp (left); Splendid toadfish babysitting offspring nestled under its chin (above); Flamingo tongue (top center); Arrow crab (top right); Painted elysia nudibranch or *Thuridilla picta* (far right); Fairy basslet (bottom right); Slender filefish (right)

although I took a few photos just for the sake of proof (and in case we did not see any more toadfish later), I knew the photos would not be top quality, because the fish is quite small. But it seemed like every few feet,

our dive guide was pointing them out.

Photographic challenge

Planning to shoot macro the next day in hopes of seeing more toadfish, I did not even bother to look at my images until two days later. Back in my rental unit, I was zooming in and cropping quite a bit to bring the toadfish front and center, and saw something strange under the whiskery projections of the fish... they looked like baby toadfish! Knowing nothing about toadfish reproduction, I did a quick Google search and pulled up a few other

images and a video showing how adult toadfish babysit their offspring until they are large enough to crawl out of their parent's hole and go off on their own.

Super excited about this find, I sent Henry, Salty Endeavor's owner, the photo to ask if this was common. It apparently was not, and he asked if I knew where we saw it. I did not remember. We had seen so many on that dive that I did not know which hole this photo was from. We went back the next day to look but did not find any with babies. But now I will look closer every time I see a toadfish.

This lucky find made me think about how the more we know about the ocean and marine behaviors, the more we can find (and the better photographers we can become). I knew enough to have an eye out for these awesome critters

rarely seen anywhere but in Cozumel. However, I did not know enough to look for this special behavior, and it was only by accident that I got a very rough

image of it. Now, I have something to go back for!

With macro lens ready the next day, I may not have seen baby toadfish, but we found plenty of macro critters. Flamingo tongues and arrow crabs were common. There were fairy basslets, slender filefish and the dive guide even pointed out a tiny Painted Elysia nudibranch (*Thuridilla picta*). We also saw



As one of those "so-ugly-they-are-cute" animals; they have a wide, flat face with black and white zebra-like stripes. The fish peek out from burrows where the reef meets sand, and if you are lucky enough to see more of the toadfish's oddly shaped body, you can see its fins stand out because they are bright yellow.

I had seen photos and heard there was a good chance to see them, but there are no guarantees in the ocean. However, on this dive, we saw at least seven! The only problem was I was shooting wide-angle with a fisheye lens, and



several other toadfish, which were cool, even without babies.

Easy diving & dining

Not only was I enjoying the beauty of diving Cozumel, I also was enjoying the ease of it. Current is very common at most dive sites. While it can vary from day to day and from dive site to dive site, it is expected, and all dives are done as drift dives. The boat drives up to a great area of the reef, the divers get in the water, and they drift until it is time to come up. The boats follow the divers' bubbles and the dive guide's signal buoy, which is deployed on the safety stop, and then the boat picks up the divers wherever they end up.

Getting on the dive boat, also named *Salty Endeavors*, was easy too. It picked up

passengers right on the resort docks of where they were staying or at the main town pier. I was staying in an apartment rental in town, so I met the boat at the town pier. Being close to the center of San Miguel de Cozumel, the main and largest town on the island was nice to visit for the variety of res-

taurants and the experience of walking around, checking things out.

I sampled a variety of the available dishes in town, including tacos, of course. But I also had some fantastic sushi, Italian and Indian cuisine, and I dined at several cute coffee-shop cafés with all-day breakfast options, healthy salads and sandwiches.

Glimpses of normalcy

At times, it felt surreal walking among other tourists, eating in restaurants and generally acting normal, as if the pandemic was a thing of the past. Masks were required unless eating or drinking, even outside while walking around, but that seemed a minor inconvenience to be able to travel again. We also wore them when boarding the dive boats, but soon after, they were removed because we were outside with lots of airflow on the boats.

Covid requirements

Covid requirements are changing constantly, but at the time of my trip in June 2021, no test or proof of vaccination was required to enter Mexico. Upon return to the United States, a negative Covid test was required within three days of flight departure, and it could be either an antigen or PCR test. I saw testing facilities

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Barred hamlet (above); Rock beauty in sponge (left); Channel clinging crab on reef (top center)



throughout town, many offering 30-minute antigen tests. Many of the larger resorts had the ability to do testing on-site. There was also a mobile testing unit at the airport where you could get an antigen test before flying, by arriving at least three hours before flight departure (for a PCR test, more time was required).

On my last dive of the trip to Cozumel, I found myself almost in a trance of peacefulness. A slight drift made it so that I did not have to kick, and the water just moved me past the lovely reefs. It felt like a real-life nature documentary. I was relaxed, admiring so much beauty, feeling grateful both for the preservation efforts Cozumel has undertaken and for being underwater again to experience and enjoy it. ■

Thanks go to the dive center Salty Endeavors in Cozumel for their support and hospitality. For more information, visit: cozumelscuba.com

American underwater photographer, dive writer and regular contributor Brandi Mueller is a PADI IDC Staff Instructor and boat captain living in Micronesia. When she is not teaching scuba or driving boats, she is most happy traveling and being underwater with a camera. Mueller's book, *Airplane Graveyard*, featuring her underwater photos of forgotten American WWII airplanes at the bottom of the Kwajalein Atoll lagoon, is available at Amazon.com. For more information, please visit: Brandiunderwater.com.

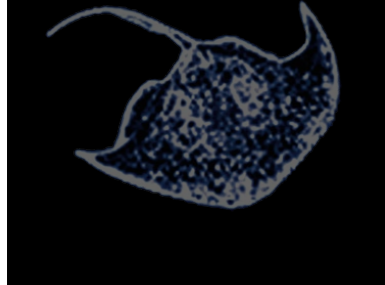


Barracuda (above); Honeycomb cowfish with diver (top right)

LEFT COLUMN TOP TO BOTTOM: Green sea turtle, scrawled filefish, squat anemone shrimp



fact file



Cozumel Island, Mexico



SOURCES: US CIA WORLD FACTBOOK, XE.COM, VISITMEXICO.COM, COZUMELSCUBA.COM

History Cozumel means “the island of swallows” in Mayan and the island is thought to have been first settled in 1000 A.D. Mayan ruins still exist, although many were destroyed. The island was sacred to Ix Chel, the Mayan Moon Goddess. The first Spanish came to Cozumel in 1518, and the Mayans were friendly with the expeditions, but the Spanish brought smallpox, and the island population of over 10,000 shrank to less than 400 by 1570. Cozumel became a popular island for pirates in the 1600s, and most of the remaining population moved to the Quintana Roo coast. In 1849, the town of San Miguel de Cozumel was recognized by the government of Mexico.

Geography The flat, limestone island is located 82km (51m) south of Cancun, in the Caribbean Sea, east of the Yucatan Peninsula. It is Mexico's largest Caribbean island, at 48km (30m) long and 16km (9.9m) wide. Much of the island is covered by mangrove forest, and most of the population lives in the town of San Miguel. The highest point is 15m (49ft) above sea level, and there are several cenotes or freshwater sinkholes. The Mesoamerican Barrier Reef System encompasses Cozumel's reefs, and a large portion of the southern area of the

island is part of the Arrecifes de Cozumel National Park.

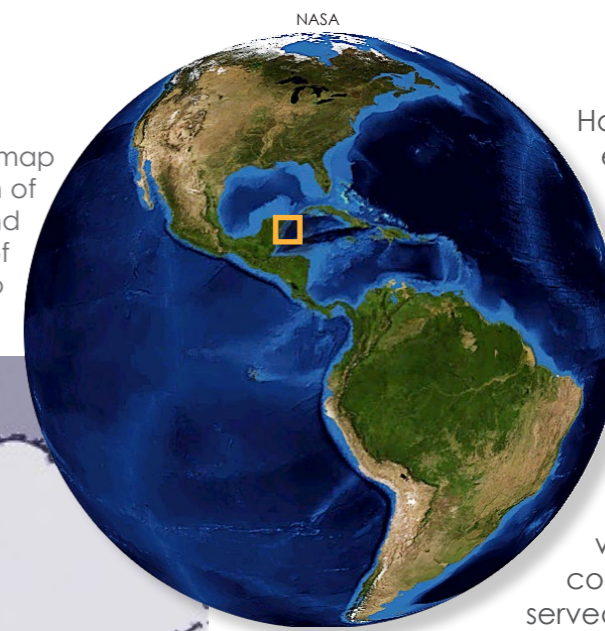
Climate Diving occurs year-round, with only a short dry season from February to April and a wet season from May through January. Hurricanes are more likely to occur from July through November. Air temperatures range from 73-81°F (~23-27°C), with the cooler months being the dry winter months. Water temperatures range from 76-82°F (~24-28°C), being warmer in the summer and cooler in the winter months.

Environmental issues: Cozumel faces a number of environmental issues, including cruise ships' and hotels' mismanagement of waste and pollution. The reefs have shown noticeable decline, likely from many factors, including pollution; tourists harming the reefs by standing, touching or kicking them, and wearing non-biodegradable sunscreen; bleaching; stony coral tissue loss and other factors.

In recent years, stony coral tissue loss has shown up on Cozumel reefs, which is likely a spreadable bacterial infection and is not completely understood yet. First seen in Florida and the Caymans, there is speculation about whether cruise ships may have spread it to Cozumel, or that it may have



RIGHT: Global map with location of Cozumel Island
BELOW: Location of Cozumel on map of Mexico



Haggling with taxi drivers is expected.

Health & security Tap water is not drinkable, but bottled water is readily available. Unwashed and uncooked foods can also cause problems, so make sure fruits and vegetables are washed with potable water or cooked thoroughly and served hot. Malaria is not present in Cozumel but can occur in other parts of Mexico. The mosquitoes that carry dengue and Zika are present in Cozumel and throughout Mexico, and outbreaks occasionally occur. Protect yourself from mosquito bites. Routine vaccinations are suggested, including Covid-19, measles and typhoid.

Language Spanish is the official language, but you will find English commonly spoken and understood due to the large number of tourists in

even been spread though visitors' dive gear. It is recommended that divers wash their gear thoroughly, even during intervals between diving different dive sites, to help prevent spread. Sunscreen is also considered as a possible risk factor.

Cozumel was one of the first places to ban chemical sunscreen. Ingredients like oxybenzone and octinoxate have been shown to harm corals by basically blocking sunlight in the same way they block it on our skin. Corals need sunlight for their symbiotic algae to grow, and when the algae does not get the sunlight it needs, it dies or leaves the coral, leaving white, bleached coral behind.

Cozumel also made a decision in 2019 to start closing parts of the reef for certain amounts of time to help take off the pressure from human activities. This is currently ongoing, and in 2021, there have been rolling closures where a small part of the reef is closed

for a month, and the next month, another area is closed.

Economy Tourism constitutes the majority of the island's economy, including diving, fishing and snorkeling. There are many hotels and over 300 restaurants. Cruise ships frequent the island.

Currency Mexican Peso (MXN) and US dollars are commonly accepted. Euro and British Pounds less so but are sometimes accepted at tourist establishments. ATMs are common but be aware of transaction and exchange fees. Many ATMs will also dispense US dollars. Credit cards are accepted at most tourist businesses; some charge a fee. Exchange rates: 1USD=19.98MXN; 1EUR=23.65MXN; 1GBP=27.77MXN; 1AUD=14.75MXN; 1SGD=14.79MXN

Population 100,000 on Cozumel; 127.6 million in Mexico.

Cozumel.

Phone/Internet Mexico's SIM cards with inexpensive data and cell phone plans are easy to obtain; reception is good throughout the island with 4G. Many international cell phone providers have international plans that work in Mexico. Most resorts and many restaurants offer free Wi-Fi.

Voltage 127 volts, AC 60 Hz. Type A and B plugs with two flat parallel pins and/or grounding pin.

Transportation There is an international airport in Cozumel (COZ) which receives flights from the United States, Canada and other Mexican cities. Another option is to fly into Cancun (CUN) and take a shuttle and ferry or an air shuttle to Cozumel. Rental cars are readily available, and taxis are common in tourist areas (but can be harder to find in town).

Crime is not usually an issue on the island, but like anywhere else, take sensible precautions, including securing valuables in safes; do not flaunt expensive jewelry or electronics; do not leave valuables in open view in cars or at beaches; and be aware of your surroundings. Petty theft can occur, but violent crimes are rare.

Covid precautions Hotels, restaurants and other businesses have implemented Covid protocols, including capacity limits, temperature checks, hand sanitation and mask requirements. Most eating and activities are done outdoors, making Cozumel quite safe.

Recompression chamber The Cozumel International Hospital has a chamber.

Travel/Visa Most countries do not require a visa and Mexico allows tourists to stay up to 180 days.