

the inner sea

DIVING THE WORLD'S AQUARIUMS

THESE ARE DREAM DIVES. YOU ENTER AND ARE IMMEDIATELY SURROUNDED BY TROPICAL FISH OF ALL SORTS. THE BOTTOM IS LITTERED WITH CORAL, A SHIPWRECK AND EVEN A WWII FIGHTER PLANE. IT'S SHALLOW, BUT CLEAR AND WARM. IT'S HARD TO DECIDE WHERE TO LOOK FIRST – A SCHOOL OF BATFISH SWIMS BY. THEN A BIG MARBLED RAY. NEXT YOU SEE SHARKS – BLACKTIPS, GREY REEF SHARKS AND BEAUTIFUL LEOPARD SHARKS.

They come close but don't threaten. And another odd fish, a guitar ray, swims overhead so close divers can see its strange mouth and pointy nose. A big green sea turtle swims right up. Off in the distance, a reef giant looms from its cave. A giant grouper big enough to swallow Jonah coasts into sight.

One of the best dive sites on Guam in Micronesia is located on the tourist Mecca of Tumon Bay. Divers don't even have to go as far as the beach to make the dive. Nestled amongst the night hotspots at the north end of Guam, Tumon Bay is a place called Underwater World. Not a true divesite, but an amazing aquarium, this relatively new venue at Guam's tourism scene brings the reef to all ages. It holds one of those 'world's largest' designations as the world's longest walk-through aquarium. This amazing complex made of seven foot wide, seven foot tall, see-through acrylic is a tunnel under more than 10 feet of water.

In the last few years, I've added some pretty cool and rather unique dives to my log. I've taken the opportunity to dive with the aquarium

denizens. From Cape Town to Perth to Guam, I've logged dives with ragged tooth sharks, rockhopper penguins, huge rays, giant groupers, thick-lipped wrasse and other sea life. Separated from the public by only 3 inches of acrylic, I've roamed underwater vistas normally reserved for only the most accomplished diver. I've done a shark dive, a kelp dive, a shipwreck and a sunken war aircraft visit. And without fearing the bends, one can live the dream. It doesn't beat a real dive in the open sea in a big fish area, but it is just fantasy come true to have all of these big reef creatures so close and constantly swimming by, behind over and under. That's the attraction. And you can get some great portraits in this enclosed environment that are very hard to get in the wild.

In Cape Town, the superb Two Oceans Aquarium offers a kelp dive (quite cold), a big tank dive with raggie sharks and even a deep-sea brass helmet hardhat dive. This is a great place even if you don't make a dive. More than 50 exhibits in nine major galleries explore the habitats off the southernmost tip of Africa.

A dive in the big tank, called the Predator Exhibit, brings you up close and personal to experience a close encounter with five ragged tooth sharks, turtles, gully sharks and other predator fish. This tank is fun and contains two million litres of water and a depth of 16 feet. Visitors watch the divers with great interest through a huge display window. There's also a tunnel on one side of the tank. Aside from the sharks, shoals of yellowtail, garrick and many other fishes school here

and several species of rays and a turtle are visible through the enormous 38-foot wide by 14 foot high acrylic picture window.

The sharks constantly circle, so we picked a nice vantage point and myself, model Olga Spoelstra and a safety diver with a poker nestled in to shoot the raggies. While they haven't ever had a problem with aggression here, an accidental brush or an inadvertent head flick with those razor-sharp teeth could still slash a diver. My safety guy basically kept the sharks at poker's length to prevent any such mishap to the model or me. Still, I managed to bump into one and it scared the bejeezus out of both of the raggie and me.

Diving at feeding time brings a much more active fish population. The 'general feed' is when all the fishes in the display are fed, an astounding feeding frenzy as the fishes swim at great speeds and devour everything in sight. The gully sharks, eagle rays and a loggerhead turtle are fed on a separate occasion. The turtle keeps everyone amused as it hovers around the divers, occasionally giving them a nip if it's ignored for too long.

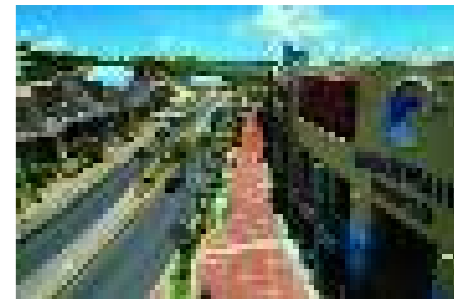
The Kelp Forest Exhibit (700,000 litres) is also great at feeding time and the fish here engulf the divers. It's pretty crazy. The folks at Two Oceans were also amenable to my needs and put five rockhopper penguins in the tanks for me. These feathered missiles were a riot to watch and a challenge to photograph. They can really move and I wound up with a bunch of blurred darts swimming through the frames.

The Aquarium of Western Australia offers a similar dive experience. The facility is found seaside at Hillary's Boat Harbour in Perth, about a 20 minute drive from the downtown area or 30 minutes from Fremantle along the sunset coast and the Indian Ocean. This is a tunnel type facility like that of Guam. Depths range about 10 feet and feature many of the creatures of the east and west coasts of Australia. Thus, the water is colder as many of the creatures come from the seas around Perth and to the south. There's numerous rays, loggerhead turtles, Port Jackson sharks, raggies and the odd guitar shark. Temperate Sea is Australia's largest walk-through aquarium. Other displays here include the Great Southern where the amazing weedy and leafy sea dragons unique to Australia are found below the colder waters of the Southern Ocean. Living Ocean shows jellyfish and wonders of the ocean floor. The Far North has crocodiles, mangroves and stonefish. Seal Island is home to Australian and New Zealand fur seals.

One experience that's not a dive or even indoors but well worth doing if in the area from September through December, is a humpback whale watch. They take small groups of a dozen or less and doing eye level views of the mammals swimming and, with luck, breaching. A whale expert accompanies the trips.

I decided to round out my aquarium resume with a dive at home on Guam. When done by tunnel on foot it takes ocean lovers through various habitats as they are found near-coast and offshore in the depths of the Pacific Ocean, so all of these creatures are familiar to me. But I'm much more used to seeing grey reef sharks schooling out in the blue and having giant groupers hiding in deep caves and fleeing my presence. When you dive here, they are all nearby and often curious, coming close when you least expect it.

The highlight most days is the shark feed. Underwater world divemasters and biologists enter the aquarium waters and set up between the shipwreck and the walkway to give a show for visitors. Sharks, rays, turtles and even



guam





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pufferfish gather around for a handout and it gets pretty wild. Guitar and leopard sharks even suck on the diver's suits at times. The divers then shift sides to a sandy patch on the other side of the tunnel complex to feed the giant grouper. Big but shy, he has to be coaxed to eat his meal. Sometimes he is accompanied by a huge jackfish.

There's also a number of other tanks and displays and an educational area for children. At the end of the tunnel visitors ascend through the water via escalator onto the second floor. Here there are rare deepwater nautilus, the quiet realm of a tank of large jellyfish and seemingly scary spider crabs that, according to legend, are known to feast on the remains of drowned sailors in the cold depth of the Pacific. This portion of the exhibit is also home to the beautiful and exotic. Look for living sea anemones, giant clams, coral, octopus, big moray eels, clownfish, potbelly seahorses and lionfish. And there's a kids 'petting reef' of sorts where they can touch small marine creatures.

General curator Jeffrey Mahon oversees the entire complex and a team of biologists and tech workers who keep the Tumon unit healthy and full of diversity. The captive breeding of leopard sharks within the facility allows guests to see various stages of development. Pregnant females swim in the main chamber and drop egg casings. Biologists retrieve them and put them in a smaller tank. Other tanks hold various sized juveniles.

The nice thing about all of these facilities is that education is also a key to the programs here. The summer programs are packed with kids from all school levels. They are designed to increase public awareness and knowledge of the planet's coral reefs, oceans and the animals that depend on them. Through this, it promotes individual responsibility and stewardship for the environment.

If it's too rainy, too cold or time is an issue, remember you may be near an 'inland sea'. Check if they have a dive program. It really is fun and can be combined with all of the other pleasures of an aquarium visit. It's a great place to visit and enjoy the beauty of the coral reef world.

FROM ZEBRAS TO LEOPARDS GUAM'S SHARK BREEDING SUCCESS

Jeffrey Mahon, PhD, is the informative and enthusiastic general curator of the Guam Underwater World Aquarium. A University of Hawaii graduate, he is

particularly proud of the development of captive breeding of leopard sharks within the facility. Guests can see various stages of development. Pregnant females swim in the main chamber and drop egg casings. Biologists retrieve them and put them in a smaller tank. Other tanks hold various sized juveniles. Commonly found on tropical coral reefs, there is no mistaking a zebra or leopard shark. They have long broad tails and distinctive coloring. Juveniles have stripes, thus they are called zebra, which gradually fade into the spots of the adult. Because of the spots of the adult, they are also known as leopard sharks. This shark has small barbels on its snout, small eyes and mouth. They also have tiny spiracles behind the eyes, indicating they are bottom dwelling. Divers occasionally find a shark resting on the bottom, propped up on its pectoral fins with its mouth, open facing into the current, waiting for food.

When it comes to laying the egg sacks, the leopard shark is oviparous. The female lays large (17 cm in length) dark colored egg cases that have tufts of hair-like fibers, which anchor the eggs to the bottom. The young are 20-26 cm when they hatch. His entire cycle can now be followed through observing various tanks in the Guam facility.

