

The Aquarium Diver

by Marcelo Mariozi

When I started diving (and I won't tell you how long ago that was) to be called an "aquarium diver" wasn't the best of the compliments. It was only directed at very short divers or the ones whose skills (or "manhood") were only compatible with the best of the circumstances. Surfing since the age of 6 I was fairly OK aquatically speaking, and at 5'9" I was safely outside the height zone for the adjective. I would never have imagined that after becoming a father I would be called an "aquarium diver" and would receive that with great pride.

Little more than a year ago a new aquarium was opened here in Dubai. It's one of the best looking aquariums I have ever seen. Inside the trendiest shopping mall (and to be the trendiest in Dubai is no small achievement), and the biggest mall in the World, right on the foot stones of the Burj Khalifa - the recently inaugurated tallest man-made structure on Earth - on an amazing complex right in the very middle of town.

The Dubai Aquarium is not one that would be easily missed inside all the grandeur that surrounds it. Its main window measuring 32.88m wide, 8.53m high, and 75cm thick, holds the Guinness Book of Records mark for the largest acrylic panel in the World. It is also the largest suspended aquarium in the World (as it does not sit on "ground floor" and there are shops and facilities underneath it) with a 10 mi. litre



Dubai Aquarium & Discovery Center in The Dubai Mall has clinched the Guinness World Record for the 'World's Largest Acrylic Panel'. With one of the largest tanks in the world at 51 meters by 20 meters by 11 metres, the aquarium features the world's largest viewing panel, which will be 32.8 meters wide, 8.3 metres high, 750 mm thick and weighing 245,614 kg.

Sand Tiger Shark (Carcharias taurus) This shot was taken on my very first dive in Dubai Aquarium. I was standing with my arms extended and the dome really close to the shark's belly (this is a fisheye lens) and you can see both the several light sources (reflected on the acrylic) and a bit of the shopping background. This exposes another problem,

when you're inside an aquarium and close to the windows it is very hard if not impossible to actually see where the window is!!!

All you see is a perfectly round Snell's Window but you don't really know how far it is, and you need to be careful. Nikon D300 with Nikon 10.5mm/2.8 Fisheye, in Sea&Sea MDX-D300 housing with 2 YS110 in Manual, 1/30s@f/8 ISO1600





*The main window, wider than a B737 earlier version wingspan, it is the Guinness Book of Records largest acrylic panel in the World and is 75 cm thick!
Nikon D700 with Nikon 14-24mm/2.8 @10mm in M mode, 1/25s@f/5.6 ISO400.
This image was taken one day when a film crew had extra-powerful light cannons on top of the aquarium, hence the “low” ISO.*

tank of 51m x 21m and 11m deep. Inside it one could count more than 33.000 specimens (all kept within rigid ethic standards of WAZA - World Association of Zoos and Aquariums and CITES - Convention on International Trade of Endangered Species of Wild Fauna and Flora) and more than 200 sharks (when grouped together with their cousin rays), included in this number is the biggest

population of Sand Tiger Sharks in any aquarium, 32 specimens.

Right in the middle of the mall it is not something easily missed, it recreates a marine environment with a shark cave, pier, volcanic rocks, corals and kelp forest. And I can't deny, since the very first moment I saw it, and the biologists diving in it, I wanted to be there. And to shoot it. So when I got an approval from a



Diver heading to the cage for the shark's feeding session, surrounded by Giant Trevally (Caranx ignobilis). You can have an idea of how limited was the light levels, even a relatively slow moving target (human) was fast enough to be blurred and require some panning.

Nikon D300 with Nikon 10-24mm/3.5-4.5 @10mm in A mode, in Sea&Sea MDX-D300 housing with 2 YS110 in Manual, 1/13s@f/6.3 ISO800

Brazilian magazine for an article on the aquarium I jumped on it.

Living in Dubai, I help the local association (EDA - Emirates Diving Association) in developing underwater photography locally with contests, events and courses. Most of my “photographic” time is spend teaching underwater photo, and although I love it, it doesn't represent much in terms of artistic challenge.

This “job” proved very challenging, maybe more than my rusty skills would allow, and certainly much more than I expected. But going through with it was very rewarding and put me back on track with my search for an underwater photo language or style, something that was stalled for a few years.

The facilities of the Dubai Aquarium are state-of-the-art, and

diving there (after strolling on flip-flops with my bags past stores like Prada, Cartier and Rolex...) looks like diving in a futuristic movie set. But I was thrown back in real-life the moment I hit the water. Not only by the fact that I was diving with 100+ sharks in a constrained environment, but by the sheer terror when I firstly measured the light in the tank which fluctuates around EV 5-7 for ISO100... Light levels are kept that low in order to avoid an algae bloom.

Aquariums that choose to use natural light as their light source are normally very simple in design putting their emphasis more on the animals displayed, but the complex scenery and niches of the Dubai Aquarium required very low lighting levels in order not to become completely green covered by algae, there was simply no asking for them to turn on more lights.

It was the first time shooting underwater that I wished I had better high-ISO performance camera. I shoot with a D300 which I think is the best option overall for underwater photo. Let me explain a bit before I get stoned, I started shooting underwater with film, and I never used anything past ISO400 underwater, I never needed, and I really appreciate the size of the D300(or it's "s" version) - the smaller all-metal sealed body - and it's lens choices. But I found



Sand Tiger Shark (Carcharias taurus) are definitely the stars of the show in Dubai, but no matter how much I click them it is always weird to look through the viewfinder (or later on the LCD) and see them with such a cosmopolitan and urban background... Nikon D300 with Nikon 10-24mm/3.5-4.5 @10mm in M mode, in Sea&Sea MDX- D300 housing with 2 YS110 in Manual, 1/15s@f/5.6 ISO800

myself with unfaithful thoughts over a D700 while diving there. But there was no turn-back, no time to buy a D700 and a new housing, I started pumping up my ISO until I got "shootable" speeds and apertures, adjust the high-ISO noise reduction, and then pray.

At first I was very worried, but as I started shooting it started to get interesting. I always liked action unconventional shots, and with such

a high level of big fish activity in a relatively small space, while stuck at 1/30s or slower shutter speed, after the first clicks I found myself back on my own track to find my "style". Underexposing a bit, panning my housing with a 10.5mm fisheye lens centimeters away from a 2.5 meter Sand Tiger Shark, clicking and hoping the strobe would somehow freeze the subject. Intense, very intense 45 minutes.



The ever cooperative aquarium's ROV (Technologies submarinus). Nikon D300 with Nikon 10-24mm/3.5-4.5 @10mm in A mode, in Sea&Sea MDX- D300 housing with 2 YS110 in Manual, 1/25s@f/6.3 ISO800

I had all the images for my article on that single dive, but I wanted more... I approached the aquarium curator and he liked the images, they needed images for marketing and I needed more dives there, perfect marriage and I ended up doing more jobs there.

I was glad I shot RAW, instead

of the JPGs I am used to shoot for competitions. The WB in the tank is another big challenge I did not know about, I only got that when I checked the images at home on my MacBook calibrated screen... It was simply all over the place, like I was drunk!!! Together with the light levels they keep the color temperature slightly cooler than the “bluest” ocean at something like 12-14 thousand Kelvin, again to keep algae levels under control. It also varies during the day on a lunar cycle for the fishes and, in a clear try to make me insane, they have light shows every now and then when lights can go from green to purple... God Save RAW.

Another “challenge” is that every time I pointed my camera up, remember the famous words “shoot up, shoot up...” I was completely knocked out by a ceiling full of light spots. Like I was being punished by some sort of Photo God of my sins of complaining about the sun and it’s dreaded sunballs since I went digital. Believe me, I will never complain about sunballs in my pictures ever again. The 50- something Suns I had in the aquarium not only were hard to tame but also drove my light measuring nuts!!! You can have an idea by looking at some of these images I remember flinching when I sometimes pointed the camera up while looking through the viewfinder... God Save M Mode as well.

I was very pleased with the first results, the action shots looked OK and I specially liked the darker fringe in front of the moving subjects, created by their body obscuring the ambient light after the flash pop. It created a “definition” boundary in the right area, closer to the “face” or head of the fishes. Had I gone rear sync I might have gotten pretty sharper tails instead. Of course this new (new to me at least!!!) approach produces

a lot of images inside my computer’s trash bin, but the keepers are really worth it.

There were some interesting experiences as well, like shooting an ROV they keep for technology demonstration for the public. I would signal for the ROV operator to move it around or turn on the lights etc... and guess what? It would just do as I told it to! It is so funny or unusual for an almost-exclusive underwater photog to control their models (mainly fish) that I found myself laughing while the ROV followed my instructions, wishing fish would behave like that sometimes. That was easy... but remember never to look to it when it is pointed at you with lights on, or you will feel like I think the fish feel when we shoot them, believe me.

The action inside the tank is another story. I was shooting the fishes and I wanted a shot of the action that occurs during the general feeding when divers go down with a big bucket of food. I am talking about a lot of fish. After briefing with the feeders we would kneel on the sand and they would feed the smaller fishes while coming towards us. Easier said than done. The action got really intense when they got closer. At one point the ROV, which was about 2m from us, was completely knocked out, rolled over and it’s operator had to pull it up out of the mess. I was insistently trying to shoot the action while my strobes, housing, arms, hands, mask, got hit by tails of all kinds of fish and smaller sharks. I noticed my buddy was also being beat when a big ray sat over me sucking over my head, the sound was like being inside a washing machine, and I knew my bodyguard-buddy was probably needing a bodyguard himself. We were literally ran over by fish. Nothing we could do, the camera could rarely find focus, strobes were blocked by



Sand Tiger Shark (Carcharias taurus) This was during a shark feeding session, you can see the different colors of the light sources during a “blue” phase of the light show.

Nikon D300 with Nikon 10-24mm/3.5-4.5 @10mm in A mode, in Sea&Sea MDX- D300 housing with 2 YS110 in Manual, 1/20s@f/6.3 ISO800

fish most of the time, snapped 5 shots at most and we had to go up a few meters to escape the massacre. We met above the cloud of fish, it was the end of the dive and I remember laughing it out all the way...

I am still doing some shots in there, there are a few angles and opportunities to be explored and the aquarium is about to receive some Scalloping Hammerheads Sharks that I want portrayed. An aquarium dive is something not to be missed, but it is so much enjoyable when you are prepared for it. If you ever have the chance to do such a dive take a bit of time to think about the factors I exposed here, I wished I had someone to talk about it before. For the next dives I just got myself a TTL converter, even though since going digital I never missed TTL, I want to be able to shoot the smaller fish and to do some portraits of the bigger ones with better productivity, because the opportunities to dive in such a place are not to be missed.

I was really happy and proud I was invited to do this job, that ended up putting me back on my own photographic tracks while helping spread the word on our Oceans. It is estimated that more than 25 million people have seen the main window for free in it's first year of operation, and the Dubai Aquarium like all good aquariums, helps to take

environmental causes into urban areas where most agencies struggle to penetrate.

While I was shooting there I never had so many people shooting me, it was impressive. And to be able to show my 3 yo. son what his father does underwater was specially nice... I remember once, as soon as I popped my head out of the water, the first thing I said to my dedicated DM and bodyguard was "I don't want to dive in the Ocean ever again, it's like hunting for food against a walk in the supermarket!".

Nah!!! Not really :o)

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