

# Shark Research

by Chris Schenker

There are many great places to dive with sharks in the world. Some of them, like the Bahamas, are known for clear, shallow dives with species like tigers and great hammerheads. Others, like South Africa and Australia, promise encounters with white sharks, but at the cost of cold seas, limited visibility, and cages. Adding even more variety are places like Cocos and the Galapagos, where large schools of hammerheads can be seen if one is willing to brave difficult diving conditions. The only thing that most of these destinations share in common is the difficulty in reaching them. For most photographers, travelling to any of these places requires at least one international flight, as well as one or more domestic flights on smaller carriers; besides the added expense, there's also the added worry of damaging camera equipment or dealing with overweight fees.

One destination that stands apart as boasting great shark diving while still being easy to get to is South Florida. Although often used as a jumping off point for the Bahamas, the southeastern tip of the United States deserves attention in its own right. From Jupiter in the north to the Keys in the south, there be (many) sharks in these waters.

As a student at the University of Miami for the last three years, I've been lucky enough to share the water with these beautiful creatures on a number of occasions, and although it's only a small sample of what the area has to offer, hopefully I can convince you to consider South Florida for your next shark diving fix.



*Swimming in open water with tiger sharks is an experience not to be forgotten. Nikon D7000, Nauticam Housing, Tokina 10-17 at 15mm, Sea & Sea YS-D1 strobe. ISO 250, f/ 8.0, 1/125 sec.*

Jupiter, at the very northern tip of Palm Beach county, is one of the region's best megafauna destinations. This is the closest point in Florida to the Gulf Stream, and the constant stream of warm water and nutrients supports a healthy ecosystem. At the top of this ecosystem, of course, are sharks, and there are a number of ways to interact with the species that call these waters home. Baited shark dives are a popular option, and with several

different charters running trips weekly, there's no shortage of choice. On my half day trip with Emerald Charters, we dove the same site back to back, as the action was simply too good to leave. A metal bait box had been left at the site several hours before our dive, and the sharks, evidently regulars, were quick to arrive as soon as we descended.

Wearing a chainmail suit, our divemaster drew the sharks in with bait while we watched from



*Although smaller than their tiger shark cousins, lemon sharks are no less inquisitive. Nikon D7000, Nauticam Housing, Tokina 10-17 at 15mm, Sea & Sea YS-D1 strobe. ISO 250, f/ 8.0, 1/125 sec.*

the side of an upturned tug boat. The action was mostly lemons to begin with, but everyone's excitement went up a notch when two adult tiger sharks made their entrance. Dwarfing the lemons and nurse sharks present, both tigers had an air of supreme confidence about them as they swam unhurriedly through the water. The larger of the two, a male, was about eleven feet in length, and, even though they get plenty bigger, I can assure you that an eleven footer is still nothing to scoff at! Not showing the least bit of shyness, the tigers would

alternate roles as one went straight for the bait, while the other circled and watched us from behind, obviously curious about these strange, bubble blowing visitors. The divemaster encouraged this curiosity (within safe limits), repeatedly guiding the sharks close to our lenses and creating some great photo opportunities in the process.

The sharks stuck around during our surface interval, and we followed the same routine on the second dive. This time, however, the bait box had to come up, too, and the sharks



*This tiger shark enjoys a good nose rub! Nikon D7000, Nauticam Housing, Tokina 10-17 at 15mm, Sea & Sea YS-D1 strobe. ISO 250, f/ 8.0, 1/125 sec.*

followed us up with it. My adrenaline was pumping as I hung suspended in the water column with half a dozen lemon sharks and two tiger sharks all zooming in and out, trying to get one last piece of free fish before the end of the buffet. The close up action made for some great images, but keeping an eye on the two tiger sharks occupied the majority of my attention. It was an experience I'll never forget.

Jupiter also has a host of great reef and wreck diving, and the megafauna you're likely to encounter changes seasonally. Goliath groupers

congregate on the area's wrecks in huge numbers in late August through early October, lemon sharks aggregate in January and February, and green sea turtles, loggerheads, and leatherbacks nest from May until July. If you're looking for big stuff, sharks or otherwise, there is a never a bad time of year to visit Jupiter.

Moving down the coast, Palm Beach has no shortage of great shark diving either. Similar to Jupiter in topography, most of the dives in West Palm are drifts on wrecks or deep ledges, and it's difficult not



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*Ryan the divemaster tempts a dusky shark with a piece of bait. Nikon D7000, Nauticam Housing, Tokina 10-17 at 10mm, Sea & Sea YS-D1 strobe. ISO 320, f/8.0, 1/200 sec.*

to encounter sharks as they coast by in the current. There are many great day boats in the area, but for the underwater photographer, I believe Ryan Walton of Deep Obsession Charters deserves special consideration. Like many other charters, Ryan conducts baited dives in open water, but he also gives participants the choice of scuba or snorkeling. In my mind, this is a game changer, as sharks are more inquisitive and come in closer to divers who aren't blowing noisy bubbles. Along with the added freedom of movement,

I think this makes snorkeling the clear choice for photographers who want to maximize their productivity.

On my day out with Deep Obsession, I spent over two hours in the water with lemons, black tips, silkies, and one very large dusky shark. The interactions were some of the best I've ever had, and most of the people who started the dive on scuba quickly ended up switching to snorkeling. Individual sharks came and went, but there was one female dusky shark that stuck around and never tired of bumping her nose



© Christopher Schenker

*Ditching scuba and snorkeling with sharks often leads to better interactions. Nikon D7000, Nauticam Housing, Tokina 10-17 at 10mm, Sea & Sea YS-D1 strobe. ISO 250, f/8.0, 1/200 sec.*

off of my dome port. Dusky sharks have a beautiful, fluid motion about them, and the only species I've swam with that compares is the blue shark (but I don't have to brave my frigid home waters of New England to see duskies!). The sharks didn't want to leave, and neither did we, but after more than two hours in the water, it was time to head back to port.

Although not known as a big animals destination, the Florida Keys still has plenty to offer the intrepid shark enthusiast, delivering more relaxed encounters with sharks in the

setting of beautiful coral reefs. Nurse sharks are common in Key Largo, and rarely does a dive go by without spotting at least one. Some reefs even have resident nurse sharks that can consistently be found under the same ledge! Venturing further south, Looe Key is one of the healthiest reefs in the Keys, and this has a notable impact on the density of large marine life. On a single morning at Looe Key, I saw nurse sharks, blacktip reef sharks, a lone lemon shark, and one rather portly goliath grouper. It may not be the same high current,



***An SRC intern takes blood from the caudal vein of the shark. We process blood on board, separating the plasma from red blood cells for different studies. These samples can reveal pregnancy hormones in females, diet patterns, energy stores, and immune health. Nikon D7000, Nauticam Housing, Tokina 10-17 at 16mm, Sea & Sea YS-D1 strobe. ISO 100, f/ 11, 1/125 sec.***

adrenaline pumping diving as up north, but if you want easy dives on gorgeous reefs with a few sharks mixed in, the Keys may be just the spot for you.

As rosy as this may all sound, not all is well in paradise. Shark populations in South Florida are subject to many of the same threats as other shark populations around the world, including overfishing, both commercial and recreational,

pollution, habitat degradation, and climate change. Although our knowledge is still limited, the hope is that by understanding how populations are impacted by these stressors, we may respond with targeted conservation methods in the future.

One bright spot is that there are many organizations in South Florida pursuing this goal. Foremost among them is the University of Miami's



***We take three basic length measurements of each animal. Here we are measuring the distance from the snout to where the upper and lower lobes of the caudal fin (tail) meet, which is termed the “fork length”. We also measure the “pre-caudal length”, the distance from the snout to where the caudal fin begins, and the “stretched total length,” all the way to the tip of the tail. Nikon D7000, Nauticam Housing, Tokina 10-17 at 14mm, Sea & Sea YS-D1 strobe. ISO 100, f/ 11, 1/200 sec.***



*A water pump is placed in the shark's mouth to flush oxygenated ocean water over its gills during the quick work-up. This allows the shark to breathe, and helps keep it calm, reducing stress and promoting vitality. Nikon D7000, Nauticam Housing, Tokina 10-17 at 14mm, Sea & Sea YS-D1 strobe. ISO 100, f/ 11, 1/400 sec.*



*After samples are taken, the shark is carefully released back into the ocean. The whole process occurs in about five minutes or less. Nikon D7000, Nauticam Housing, Tokina 10-17 at 14mm, Sea & Sea YS-D1 strobe. ISO 100, f/ 10, 1/400 sec.*

Shark Research Center (SRC), a research group committed to advancing ocean conservation worldwide, but which focuses mainly on shark science and conservation. Directed by Dr. Neil Hammerschlag, SRC conducts cutting-edge shark research, fosters scientific literacy and environmental advocacy, and is comprised of university faculty, graduate students, undergraduate students, and volunteers.

I have been privileged to serve as a photographer

and research intern with SRC for the last two years. Traveling from all over the country, thousands of school children come out on research boats with SRC every year to tag, sample, and study sharks. As the photographer on these trips, it is my duty to document the day in photos and assist with several measurements of the eyes and caudal fin. Photos from the day serve as a memento to remind citizen scientists of their role in

ocean conservation, as well as a vehicle for SRC's public outreach efforts. SRC's work has implications for shark populations around the world, such as a recent study that found toxic levels of mercury and BMAA (both linked to neurodegenerative diseases like Alzheimer's) in sharks from the Atlantic and Pacific. Unless the general public is engaged to take a more active interest in sharks' wellbeing, however, science alone can only do so much. The goal of

SRC's media presence is to bridge this gap and generate both an appreciation of sharks and an understanding of the challenges they face.

As photographers, it is easy to get wrapped up in producing winning images for competitions and our own portfolios. Although there is nothing wrong with this, I think that we as underwater photographers owe a debt to the aquatic environments that we're lucky enough to experience in a way so

few others are able to. It's incredibly rewarding to combine photography and conservation, and I would encourage every reader to think about how your images could be helping to protect the oceans, rivers, lakes, and streams that we all cherish.

If you would like to donate, learn more about the Shark Research Center, or get involved, please visit

[www.sharktagging.com](http://www.sharktagging.com)

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