

ABOUT "SEX, SHARKS AND ROCK & ROLL" – VOL. II
"DESPITE ITS SOMEWHAT PROVOCATIVE TITLE, SEX, SHARKS AND ROCK & ROLL IS LESS A COMMENT ON THE AUTHOR'S LIBIDO AND MORE A COMPELLING CELEBRATION OF HIS LIFE AS A MARINE BIOLOGIST."

INDIEREADER
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THERE REALLY IS...

...NO CLEAN WAY TO SAY THIS, SO HERE GOES: FOR AS LONG AS I CAN REMEMBER I HAVE ALWAYS LOVED ANIMALS, SEX AND MUSIC, ESPECIALLY PERCUSSION. IN FACT, I HAVE BEEN TOLD I JERK HARDER THAN SEINFELD'S ELAINE BENES WHEN I'M SHAKING MY BOOTY TO A DECENT BEAT. IT IS THEREFORE NO SURPRISE THAT I STEERED MY CAREER INTO WORKING WITH SHARKS AND OTHER MARINE ANIMALS, WHILE KEEPING A PRIVATE SIDE BUSINESS SELLING SEDUCTIVE LINGERIE AND A FEW OTHER TOYS – OF THE ADULT NATURE - AND ALSO OCCASIONALLY PLAYING MY DRUMS WITH FRIENDS. IT'S NOT EASY TO EXPLAIN HOW ALL THIS CAME TO BE. THERE REALLY WAS NO MASTER PLAN AT THE ONSET AND I CERTAINLY DIDN'T IMAGINE I'D BE DOING HALF OF THE STUFF I DID OVER THE YEARS BACK IN THE DAYS I WAS THINKING ABOUT MY FUTURE.

I CERTAINLY DIDN'T...

...IMAGINE MY FIRST MARRIAGE WOULD OPEN BEFORE IT ENDED, NOR DID I PREDICT I'D BE MARRYING PRINCESS LEIA IN VEGAS AND I CERTAINLY DIDN'T SEE MYSELF SITTING DOWN TO WRITE A WHOLE LOT OF STORIES... SOME INVOLVING SHARKS, SOME AIRPLANES, SOME A TOUCH OF NAUGHTINESS, SOME BOATS, AND SOME PUBLIC AQUARIA, AMONG MANY OTHER THINGS. BUT THAT IS THE WAY THINGS HAPPENED AND THESE PAGES KIND OF EXPLAIN HOW ALL THE PIECES FIT IN THE PUZZLE.

JOÃO CORREIA

SEX, SHARKS & Rock 'n' Roll



JOÃO WAS BORN IN 1972 AND IS A RACONTEUR WITH A PH.D. IN MARINE BIOLOGY, WHO'S BEEN FOCUSING HIS ACADEMIC RESEARCH ON SHARK FISHERIES AND CONSERVATION. A FEATURED TEDx SPEAKER, HE BEGAN HIS CAREER IN BIMINI, STUDYING LEMON SHARK BEHAVIOR, THEN BECAME CURATOR OF SHARKS AT THE LISBON ZOO (A VERY POMPUS TITLE, CONSIDERING HE DID LITTLE MORE THAN CLEAN THEIR POOL), RESEARCHED DEEP-SEA SHARK GROWTH, AND THEN JOINED THE OCEANÁRIO DE LISBOA, WHERE HE'D BECOME HEAD DIVER AND CURATOR OF COLLECTIONS.

IN 2006 HE FOUNDED HIS OWN COLLECTIONS FIRM, FLYING SHARKS, AND, AS A COLLEGE PROFESSOR AT ESTM, HE TEACHES FUTURE MARINE BIOLOGISTS. HE ALSO STARTED AN ONLINE LINGERIE BUSINESS (ALALUNGA LINGERIE) BACK IN 1998 WITH HIS FIRST WIFE, AND THEIR FACEBOOK PAGE OFFERS DELIGHTFUL DISCOUNTS. APPARENTLY HE SHIPS WORLDWIDE TOO, AND HE NEVER SHAMELESSLY TAKES EVERY OPPORTUNITY TO ADVERTISE HIS BUSINESS - EVER! :P

SEX, SHARKS & Rock 'n' Roll

2ND EDITION

JOÃO CORREIA



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Chapter 16

June 2002

Blue Angels

The first time you ever set eyes on a blue shark, *Prionace glauca*, you understand how its amazing sapphire color became synonymous with its name. The deep ultramarine and sleek blue skin, draws our attention from the natural selection process that catapulted this extraordinarily agile species, into its rightful place as one of the top predators in the oceans today. The blue shark has a wealth of survival and hunting talents, courtesy of evolution. Its stunning coloration is dark indigo on its dorsal surface, lightening up to a brighter blue on its flanks, and to a pale white on its stomach. This counter shading gives the sleek swimmer superb camouflage, making it barely visible from unsuspecting prey swimming beneath it or to aggressors tracking it upwards from the ocean floor.



The blue shark, *Prionace glauca*. This photo was taken on the 8th of August 2014, by Nuno Vasco Rodrigues, a former student of mine, now Science Officer at Flying Sharks, and also my right hand man. You will hear *a lot* about this young man in the next book, as I tell the story of our ‘Turkish Charter Delight’ operation and *many* others.

While such sharks gliding through the sea are photogenic, running your hands over that deceptively smooth body will definitely give you the sensation of caressing sandpaper. Tiny tooth-like placoid scales are found in cartilaginous fish such as sharks, rays, and chimaeras, as well as covering the skin of the blues. These small denticles, actually trap swirling masses of water, to reduce drag and help the animal’s swimming efficiency. In fact, both Olympic swimmers and America’s Cup yachtsmen mimic this behavior by using ‘shark skin’ on their suits and hulls for better performance.

Blue sharks are indeed Olympian swimmers, some reaching speeds of 70 kilometers an hour (38 knots) in

short bursts. What power-drives that streamlined body through the waves, are its many fins: two long pectoral fins that act pretty much like the ailerons of an aircraft, assisting the shark to steer left and right, two dorsal fins along its back ensure a steady course, a single anal fin and an elongated caudal, or tail fin, provides remarkable thrust. The blue has huge puppy-like eyes, rimmed in white, that are efficient for hunting at night and in detecting motion among clouds of sandy debris or bioluminescent organisms. It also possesses a third protective eyelid (a 'blinking' or nictitating membrane) to pull down just before darting at a prey. Included in the heightened senses department is the shark's capacity to smell, which draws on up to sixty-five percent of its brain; it can also hear a fish several kilometers away. The long handsome snout has specialized sensors around the mouth and nose that detect faint bioelectrical fields discharged by other sea creatures at close range, enabling the shark to calculate the distance between itself and dinner.

The list of dietary weaponry would not be complete without referring to the animal's dental work. The blue shark is an all-opportunity eater that enjoys (and needs) a high protein cuisine to fuel its energy, therefore taking out pretty much every squid that crosses its path, but also quite a few species of fish as well. Its teeth are serrated like a band saw, the upper set being broader than those in the lower jaw. It can swallow smaller fish and squid whole, or chomp up larger captures with blender-like efficiency while gripping them in a vice-like bite.

Slender and elegant, they are indeed a splendid vision of muscular grace and speed within the marine environment. The blue is one of the sea's most impressive sharks. 'Beauty', 'agility', and other qualities, however,

are not the only attributes one owes to this animal. Where there should be a sense of human regard and kinship with this magnificence in the water, we find a story shrouded in ugliness. For blue sharks are also the victims of a horrific tale of profiteering. The species ranks first in the bloody list of their kind caught commercially worldwide. They are abundant in temperate oceans throughout the globe, which causes them to be equally vulnerable prey to longlines and gillnets soaking everywhere.

Finning

Popular misconception suggests that only Asian fleets inbound from Taiwan, Japan, China, etc., extirpate the oceans from sharks of *all* varieties, as if the animals were cancer cells targeted by chemotherapy. The myth is not in the activity – which is true – but rather, in the perpetrators. Asian fishermen aren't the sole driving force behind this mass murder caused by a slaughter-for-profit business known as 'finning'. Portuguese, Spanish, French, Central American, and even North American commercial fishing fleets occasionally (or maybe a bit more than occasionally...) indulge in this hideous practice too. Their goal is the removal of the shark's fins, which are later dried and used to make shark fin soup.

This isn't really a seafood dish at all, but is, in fact, a common garden-variety chicken soup to which is added dried cartilage of shark fins. The fins are virtually tasteless, but provide the soup *texture* and make it thicker. One little known irony is that the cartilage, if consumed in high quantities, due to its high mercury content, may cause sterility in men and/or horrible deformities in unborn babies, and issues with the central nervous system, amongst a wide suite of other gruesome symptoms. This is what happens when one consumes a top predator, because sitting at the top of a food chain means that such animals will concentrate all nasty stuff that's present in seawater, of which there is plenty (heavy metals, such as mercury, being but one of an extremely long list of nasties). This phenomenon is known as 'bioamplification' and is the reason why excessive amounts of tunafish, and other predatory species, are not recommended to pregnant women or young children.

Anyway, the so-called exotic soup is the main reason why commercial fishermen catch sharks, hack off their fins while they're still alive, and throw their mutilated bodies back in the water, where they can no longer navigate, and thus suffer an agonizing death. A shark without fins cannot swim, and therefore no oxygen-rich water enters its mouth and goes through its gills. They die from asphyxiation or from hypovolemic shock, a big word for saying the animals run out of blood and their hearts consequently stop beating. Finning is the maritime version of killing rhinos for their horns, elephants for their tusks, gorillas for their paws, and is just as senseless. Consider the mass stupidity of eventually eliminating a unique species just to improve a soup!



A finned shark... Photo from www.sharkalliance.org

The ugly practice of finning is as active worldwide today, as it has been for decades, despite multiple conservation efforts to ban it totally from the oceans. However, when we look to the politicians to enforce such a ban, they always seem to have a hard time making such

decisions on their own. So they ask for advice from other men and women in suits. The ‘suits’ then take them out to lunch while they explain the monumental profit to be gained from selling shark fins and the wonders it does for the economy.

Then it’s time for the conservationists to take the same politicians out for lunch, but our story lacks fat profits or juicy bottom lines. It speaks of nature, of biodiversity, of leaving the oceans rich with marine life, the elegant blue shark included, for the benefit of generations to come. These arguments, as powerful as they are, weigh very little on the scale against the huge amounts of money that comes from selling fins. Who knows whether or not a fraction of such profits even finds its way into the decision-makers’ pockets? Maybe not in the shape of an envelope slipped under the table, but perhaps in a more socially accepted way, such as a family holiday in Aruba with all expenses paid.

We live in a time where most problems invite innovative solutions. We’re exceedingly good at smashing things, but we’re pretty good at fixing them also. Yet, the finning industry defies this trend by constantly *increasing* its kills every year. And the reason is simple: there was a time when shark fin soup was an exclusive gourmet item reserved for emperors and the upper echelons in Asia, who owned the privilege of ingesting a piece of the almighty shark. As the global economy grows (and not often in the most sustainable fashion), more folks have reached a point in their lives where they *can* afford to eat shark fin soup. Doing so has become a symbol of status and no Asian wedding is complete without it on the menu.

Not offering it, is interpreted as an unforgiving *faux pas*, as if one's guests weren't worthy of the extra expenditure.

One needs to look at the financial factors that underlie the finning phenomenon to get a better understanding of this wasteful practice. Let's go out to the ocean where it all happens. Imagine that your living room is the same size as the cargo hold of a fishing boat and your life's dream is to become a fisherman. You saved and applied for government funding and fulfilled your ambition to own a vessel. Now you are the Captain and you have bills to pay, mouths to feed, children who need clothes and school supplies. Your crew is in the same boat, both literally and figuratively. You go out to the ocean, set your lines, and when you come back to check them a few hours later, you find sharks in abundance. You were actually wishing for the much higher value swordfish, *Xiphias gladius*, but sharks are what the Gods brought you that day. Or maybe you're over your swordfish quota and, afraid you'll get another heavy fine from *The Man* on shore, you've actually decided to hit that one sweet spot where you know sharks abound. As you pull in the catch, your crew carefully stores the sharks in your cargo hold. Soon, the living room-size space is full. It's time to go home but then it hits you: you've got 10 tons of dead sharks, which will sell back on shore for 1 euro per kilo, maybe less – that's around 10.000 euros, not bad for three or four days of work.

If only you could keep all that money, but there are expenses to consider. You have to put some aside for diesel for your next trip, for your fishing permits, for new lines and that paint job you've been delaying, that's causing all your fishermen friends to tease you because your boat is

starting to look like a rusty piece of modern sculpture fit for the Guggenheim Museum. It's essential to pull it into dry dock and scrape the barnacles off the bottom. Not just for aesthetics but mostly because the vessel is using 20 or 30% more diesel from increased friction caused by all the zoological activity happening on your hull. You know you need to do those things before your fishing business goes under. What's wrong with this scenario? Can't you do the math? What you have is a living room full of dead sharks and the 10.000 euros won't even come close to solving your financial problems, not after you've paid for all of the above and your crew, who worked hard and have their problems too. The money will vanish faster than you can say "I need to refinance my mortgage or maybe get a second, or third, or fifth loan."

An awful notion crosses your mind. One you never seriously considered before because you're just not *that* type of guy. However, the prospect is more than attractive. "What if I get rid of those 10 tons of carcasses and replace them with... *fins*? Not just the fins from those sharks we caught this week but from *all* the sharks we find. Fins are small and flat. Fins don't have pointy bits that make storing them so inefficient. Hell, I could probably fit *twenty* tons of them inside my hold because there's hardly any air or empty spaces between them! And the best part of it all is that I can sell fins for *five* or maybe even *more* euros per kilo. Five times twenty thousand..." Your hands shake as you write all the zeros down on a napkin. You made the calculation in your head but you couldn't quite trust the total. It was so high you need to see it with your own eyes. "Five times twenty thousand is... *one hundred* thousand!..." Damn... What would *you* do?

Fishing

I dare to suggest that very few problems I know of, pose a greater challenge to marine conservation than commercial fishing. Conservationists worldwide – and I like to think of myself as one despite my multiple ties to the commercial fishing sector – cry for one thing and one thing alone: sell the fins, yes; but don't throw away the carcasses. In other words, sell *only* the fins from the sharks that you fish. It's a very legitimate request and one that will help ensure sharks will be around for our children and their children. However, those with the power to deny it routinely block this request, as reasonable as it is. Moreover, the 'No' is never direct. It always comes disguised in that placating, but annoying phrase "Let's see what we can do" that takes the shape of placid and spineless legislation from which little or no positive action ever results.

Such is the case of the European Union's 'ban on finning', which prohibits the practice from European waters (which is cool), but then also allows vessels to apply for a *special permit*, that allows those who are awarded such a permit to have a catch composed of 95% carcasses and 5% fins. And this is *almost* a great victory for conservation, if it weren't for one tiny detail: most sharks' fins weigh *less* than 5% of their total body weight, which means the legislation is in fact allowing fishermen to land fins that belong to sharks which remain dead in the water after having their fins cut out on deck.

Who gets these special fishing permits, you might ask? *Everyone!* At least in Portugal, and I have no evidence that it is any different in any other European nation. Forty-five vessels applied for these permits in 2010 and that same

number were duly issued. However, remember you're the Captain of your boat and *you* decide what to bring back to shore inside your cargo hold. What will you choose: the 10.000 Euros worth of carcasses that leave you hanging, yet again, out to dry with bills you cannot pay, or the catch that will gain you the one hundred thousand Euros that will solve all your financial problems, but requires you to land those fins somewhere else?

Good news

And now for something completely unexpected! Up until this point this chapter was reading pretty much like anything written by a hardcore conservationist, correct? The world is coming to an end, we're all gonna die, those poor sharks don't deserve this ugly fate, the panda bears are running out of bamboo, those koalas are having a really hard time locating the specific eucalyptus species that they need, Jesus sinks every time He tries to walk on water, etc. Now brace yourself for this: in 2013, the European Union approved a piece of legislation that *effectively* bans fins from being landed that are separated from their shark carcasses. Think about it! This is the *only* sure method to prevent finning, because fins must now be cut *on land* and not on the open sea, where the occasional shark carcass could be thrown overboard and only its fins landed.

This was amazing news, and evidence shows it is now spreading across the world like wild-fire. For example, the good people from Wild Aid are doing tremendous work in Asia, and got Yao Ming, among other Asian celebrities, to promote the end of shark fin soup through cleverly edited short ads. In little more than a decade, this organization has accomplished spectacular results, such as the ban of shark fin soup from official Chinese Government events, and even most airlines and hotel chains are now refusing to move, or serve, shark fins or shark fin soup. One could almost say that the world is *not* coming to an end but, indeed, heading towards a glorious time of tolerance and environmental good sense? Let's see if the pattern holds. I, for one, like to think we wouldn't stoop to the point of counteracting this current trend.

Easier said than done

Other sharks also fall prey to finning, but the blues by far suffer the lion's share of mutilation and extermination. In addition to their exquisite slenderness and breathtaking beauty, rescuing them from this brutality, and increasing public awareness of their value and uniqueness, is why aquaria worldwide desperately crave for the opportunity to display them to the public. Alas, they are one of the most notoriously hard species to keep alive in a captive environment. This is the main reason why Mark and I decided to jump on a boat and not only try our luck at tagging this elusive and stunning little creature, but also in collecting one or two of them for the Open Ocean Exhibit at the Oceanário de Lisboa.

Let me expand on the challenges of maintaining blue sharks alive in public aquaria. Many of my colleagues in the public aquarium industry have tried and unfortunately failed. Once restrained into a confined space, blue sharks instinctively hug the walls of an exhibit, no doubt trying to get back to their migratory route and literally moving on with their lives. This rubbing behavior leads to erosion of their fins, and most often to severe infections, leaving these magnificent creatures prey to bacteria that ultimately win against their phenomenal immune system. Why then, were we attempting to capture blue sharks and add them to the Oceanário's already impressive shark collection? Was this another foolish human attempt at domesticating that which can't be domesticated? Well, it was our firm belief that if we were to collect only very *juvenile* animals, close to newborns in fact, they would stand a chance of survival by adapting to a confined environment at an early age.

Weighing those odds, against the phenomenal story that displaying live blue sharks can tell in a public aquarium, and thus what we can learn about them, we immediately went for it. By sacrificing two or three animals—and by ‘sacrificing’ I mean pulling them from their natural environment while placing them in the richest possible captive scenario – we felt that the sharks held in the Oceanário’s Open Ocean exhibit, would act as *ambassadors* for their species. Moreover, because these captured few represented the hundreds of *millions* of sharks slaughtered needlessly each year, we would be able to tell their story to a broad public, engage people with these animals and deepen their understanding of them. This seemed to us like a fair trade. First though, it was time to do some tagging.

Tagging

Our tagging adventure began when we found the ‘Sea Sunset’, a 12 meter long yacht, that we chartered from Walter Canelas and his sports-fishing operation. Walter was a former World Champion angler, who had taken the title in South Africa many years before when he caught a massive Marlin on his line. I had come to know him in early 2002, weeks before my first tag and release tournament off Sesimbra. Rita Sá and Francisco Leitão, both active members of the Portuguese Elasmobranch Association (check it out at www.apece.pt), called me and said “We’ve learned of an amazing guy you just have to meet!”

A few days later we were all sitting outside the ‘Mexicana’, a friendly coffee shop in Lisbon not far from where I live. Walter explained what he did, and how he was a fervent advocate of shark conservation. Although he took his struggle to the ocean, while we took it online with our many petitions to Brussels in the form of lobbying, and to schools in the form of dozens of lectures every year.

It was on this pleasant afternoon that I received another of those well-earned lessons in humility that egomaniacs, such as yours truly, deserve now and then. After listening to Walter’s cool tales of fights with exotic sea creatures as big as the Loch Ness monster, I ranted on about the scientific advantages of tagging sharks and the phenomenal data that came with recaptures. I detailed for him how easy it was to tag them and how my friends and I had tagged numerous sharks in Bimini during my 1994 and ‘95 tenures. I also explained how we could get as many free tags as we needed from the North American National Marine Fisheries Service cooperative shark-

tagging program, which has been running for decades. Walter smiled and very politely told me “Friend, we’ve been tagging sharks since before you were born, I know all about the NMFS and how to get tags from them. But thanks anyway.”

However, for all you land-dwelling readers and first-time sailors, let me humbly explain what shark tagging involves. Blue sharks are great ocean-going travelers, logging thousands of kilometers every year. Driven by an internal bio-magnetic compass, their migrations may extend from the Caribbean, across the Atlantic, journeying along routes through the Gulf Stream and up the coast of the USA. They may then swim east to Europe, south to Africa and make the return trip to the Caribbean.

The whole process of the shark’s voyage may take up to one year, sometimes more, sometimes less. The mechanism by which sharks, and other sea creatures, navigate through the oceans, often not even in contact with the sea floor, is not completely understood. Some claim they rely on the Earth’s magnetic field while others, such as my good friend Nuno Queiroz and his advisor, David Sims, believe blue sharks, specifically, swim along the border that separates different water masses. No doubt, a strategy that allows them to follow those waters that are rich in nutrients and therefore nourishment.

The U.S.’s National Marine Fisheries Service (NMFS) Cooperative Shark Tagging Program, is a collaborative effort between organizations, recreational anglers and the commercial fishing industry, to study the life cycle of Atlantic sharks. The program began some fifty years ago, and now involves literally thousands of international shark-lovers from the Atlantic and Gulf coast of North

America and Europe. Data from tagged sharks, and other species, provide marine biologists such as myself and my colleagues, with valuable information on age, growth, mortality, population dynamics, behavior, and the extent of migrations across global seas. Numbered tags are sent to volunteers to record information (date, location, gear, size and sex of shark), along with a tagging needle, instructions, current management information, and shark ID cards. Once tagged, a shark may be recaptured many months later by a commercial boat or a recreational angler. Either way, if the fishermen or volunteers involved are true friends of the species, they'll record and update the shark's current statistics, then release it and mail the data back to the NMFS program.

RECAP 02/10/09
PLEASE FILL IN DETAILS AND MAIL TODAY

TAG TYPE M (3)
311714

SPECIES BLUE SHARK (2) DATE 9/9/07

LOCATION 38°20,437 N 9°03,935 W (3820 0904)

TOT. LENGTH (95) (1)(2)(2) OFFSHORE SHORE

FORK LENGTH EST. -5 MI. BEACH

WEIGHT MEAS. +5 MI. (3) OTHER

MALE (1) FEMALE SEX UNKNOWN

TACKLE ROD & REEL (1) FISH CONDITION GOOD (1)

ANGLER JIA GO RODRIGUES ADD. SESIMBRA

CAPT. JORO BACTA ADD. SESIMBRA

CLUB ZUCA TAGGER (1)(26)

REMARKS

EVC

A shark tagging card for shark #311714, which was tagged off Sesimbra (south of Lisbon, Portugal) on the 9th of September, 2007. This male shark measured 95 cm, (3,1 feet). The tagging occurred during a 'Portuguese Shark Week' event and the handwriting you see on the card is yours truly's.

Joao P Correia
Flying Sharks
Rua Jorge Castilho 1613, 7c
Lisboa, 1900-272

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Ruth Bickel
Cooperative Shark Tagging Program
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28 Tarzwell Drive
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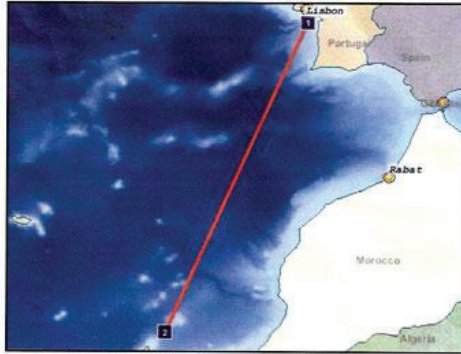
August 10, 2009

Congratulations! We have received recapture information on a shark tag that was issued to you. We are sincerely grateful to those fishermen who assist our research by tagging sharks. The information you provide is vital to our studies on migrations, age and growth, and other aspects of the biology of sharks. Thank you for your participation in the Cooperative Shark Tagging Program and for helping to make this research possible. The enclosed hat is a token of our appreciation.

Tag Number
311714

Blue shark

Male



Data are preliminary and subject to revision

	Release 1	Recapture 2
Date	09/09/2007	02/10/2009
Location	38° 20' N 9° 04' W	29° 39' N 12° 59' W
Size	95 cm measured total length	138 cm measured total length 22.5 lb estimated weight
Caught By	Recreational Fisherman	Commercial Fisherman
Using	Rod And Reel	Longline
Distance Traveled		556 nm south
Time at Liberty		520 days, 17.1 months, 1.4 years

The return report for shark #311714, sent by the American National Marine Fisheries Service. Notice that this shark was recaptured by commercial fisherman on the 2nd of October 2009, off Morocco. It swam free for 520 days between being tagged and caught by fishermen, and travelled 556 nautical miles south, although it most likely travelled quite a bit more than that because sharks obviously don't only swim straight.

Many folks from various countries are now involved in this initiative, and their participation offers us hope that a wonderful appreciation and empathy for sharks is growing to counter the evil forces of finning. The practical aspects of this noble endeavor, start with one tricky undertaking. You have to go get the shark to tag it!

We participated in the first ‘Shark Tag and Release’ tournament ever done in Portugal, precisely on my 30th birthday: 9th of June, 2002. The tournament was organized by ZUCA, a sports-fishing club based in Sesimbra, a small fishing town 45 minutes south of Lisbon, now a very touristy place that attracts thousands of visitors every weekend. Most come for the awesome beach and delicious seafood offered by local restaurants. The tagging event *per se* was preceded by a whole day dedicated to educating observers as to what sharks they were going to see, and teaching the fishermen about the practice of using circle hooks, how to safely remove the hook, measure, and tag the shark.

One of the fishermen was vehemently against it all, exclaiming dismissively that it couldn’t be done. Leonor came to my rescue as I explained to him that scientists, volunteers, and fishermen from all over the world tagged sharks – big ones too – every single day. The guy wasn’t convinced and claimed I was full of hot air. Leonor snapped a finger angrily in front of his nose, “He’s tagged tiger sharks 4 meters long in the Bahamas, you moron, and my husband doesn’t lie!” It was an intense discussion and I eventually asked Jó Pinto, one of the organizers and head of the ZUCA club, to put me as an observer in the reluctant fisherman’s boat.

The evening before the Tournament, Luís Pires, a local businessman who owned a pharmacy, a plant that manufactured fishing hooks in Spain, and also multiple fishing boats that operated as far as South America, took all us youngsters out to eat. He treated us to lobster, and other scrumptious seafood, and finished dinner by saying he had great admiration for our work and wanted to help in any way possible. He was impressed by the eagerness of the Portuguese Elasmobranch Association to finance students interested in marine sciences.

We didn't have much money then, and our earnings came exclusively from dues paid annually by (some) Association members. Still, we offered students 50 thousand *escudos* scholarships every chance we could; a small sum that nevertheless allowed them to participate in research expeditions and gain a hands-on experience of marine biologists at work. (The *escudo* was the former Portuguese currency before we adopted the Euro in 2002. 50 thousand *escudos* converts to 250 Euros, or 340 US dollars.) Check out such awards at www.apece.pt/apece_bolsas.html and the 'Research Fund' area of the Flying Sharks website (www.flyingsharks.eu) to see what I mean, although the Flying Sharks company didn't come to be until 2006 and the FS Research Fund was only established in 2008. However, you'll be able to read all about that in the next book.

Luís's claim was as simple as it was inspiring: he had been living a successful life, thanks to the plentiful bounties extracted from the oceans, so he wanted to give something back. He'd seen many conservation projects, but felt that we, albeit small, were very honest in our approach. Between dessert and coffee, he sprang the news:

He was going to award the Portuguese Elasmobranch Association 5.000 Euros (6.700 US dollars), plus a brand new desktop computer. Leonor, Rita, Francisco and I, choked on our dinner and nearly required the Heimlich maneuver, which means someone at another table was extremely close to being hit by a piece of lobster in the eye and didn't even know it...

Moved by this incredible man's generosity and candor, I immediately shared with him that I had recently bought a Porsche Boxter, and that had been paid for with the earnings of the Alalunga Lingerie online business Leonor and I were operating. The last thing I wanted was for Luís to think, weeks later, that I had used his generous donation to purchase my insane ride. About that... What can I say?... I am a man of *many* flaws...



Leonor Sousa taught sports-fishermen in Sesimbra, all about shark biology the day before the first Shark Tag and

Release tournament ever held in Portugal, on the 9th of June, 2002. The South Africa Pavillion had donated the white shark model behind her to the Portuguese Elasmobranch Association when the Expo '98 World's Fair ended. The APECE later donated it to the Oceanário's Educational Department, although we snagged it back occasionally whenever we were doing workshops or training sessions on shark biology. 8th of June, 2002

Farewell and adieu to you fair Spanish ladies

During the tag and release tournament, every boat had one observer assigned to validate the species and size of the animals caught – and released – and report on them to the organizers once they returned to shore at the end of the day. Much of the training we did the day before was directed at these observers, who needed to learn the difference between a blue and a mako shark, *Isurus oxyrinchus*, who were by far the main candidates to be caught and tagged during this operation. Interestingly, or should I say, *annoyingly*, every single boat during this session tagged at least one blue shark except ours, which was the Sea Gods' way of preventing me from demonstrating to the suspicious fishermen in my boat, that tagging wasn't such a big deal after all. Why the Gods played that evil trick on me, I have no idea.

I must admit I wasn't too upset though, for Walter Canelas had approached me with a fiendish plan a few days earlier. He believed all the chumming that was to happen during the tag and release tournament, would surely attract many critters, big ones too. He invited me to join him on a night excursion *after* the tournament. "Hell, yes!" was my enthusiastic reply as I wondered how was I going to explain to my darling wife that, not only were we to spend my 30th birthday out on the ocean tagging blue sharks, but we'd be doing it throughout the night also. She replied with a nervous "Hmmm... Let's see later, ok?" and I immediately understood the night voyage would be for my enjoyment alone. Leonor's stomach was even less tolerant than my own to the gastric upsets one encounters on the ocean.

Vítor Costa, an enthusiastic aquarist from the Oceanário, who worked on the Open Ocean team with me, asked if he could tag along (no pun intended). The boat was wild that night as Lima Ferreira, Walter's business partner, had invited a few friends to come as well, and they were a bit too loud for Walter's taste. We celebrated my birthday that fine evening, with whisky and Portuguese custard tarts (called *pastéis de nata*). Whisky is not really my cup of tea, but I felt that my 30th birthday deserved better than water, and those were the only two options available. The guilt I felt from leaving Leonor home alone pushed me towards the Cutty Sark bottle too. We were having some serious issues in our marriage at the time, and spending my birthday night out with the boys gave a new (but sad) meaning to the phrase 'Gone fishing.'

Regrettably, the evening passed without so much as a single reel firing up, so we returned to shore at about 6:00 a.m., dismayed and distraught. The 10th of June is a public holiday in Portugal, so at least I could go home to enjoy the day off with my less-than-pleased, yet incredibly understanding, wife, while poor Vítor had to rush straight to work after dropping me off at an intersection near my home.

A few months later, David Lopes, one of the Oceanário's C.E.O.s joined me along with Ana Oliveira, head of the marketing department, on yet another tagging venture. Again, we played all day and chummed the hell out of the water, but not a single shark graced us with its presence. I managed, however, to bring some of that messy mix, or at least the smell of it, back home with me. I always enjoyed jumping in the clear blue ocean and forgot to reboard the boat using a bowline, which means I crossed the chum

that slicked the surface of the water off the stern. Avoid that, if you can, when going out shark tagging; the stench is quite noticeable and being out of the water while your work mates wear clothespins on their noses stops being funny really fast.

New year

We were hoping that 2003 would bring us better luck at locating blue sharks, so, on the 24th of February, Mark and I hopped on Walter's 'Sea Sunset', taking with us a round 1,1 meter (3,6 feet) wide vat. We eagerly watched as Walter set multiple circle hooks out at various depths, and dropped a bag of chum in the water. (Preparation of this fiendish mixture was always a highlight on these trips.) It consisted of half-rotten mackerel, left in the garage for a few weeks to reach its full odorous shark-attracting potential. When Jorge – a police officer who moonlighted for Walter as his deckhand – opened the plastic drum containing the rancid goop, I remember my eyes rolled back and my nostrils just about imploded! It was one of those moments when I wished I had become a lawyer instead of a marine biologist.

Incredibly, before the chumming began Mark and I actually took that time to revise our paper 'Elasmobranch Landings for the Portuguese Commercial Fishery From 1986 to 2001', (which you may find on the Flying Sharks website under the 'Literature' section). The paper, which deals with 'high risk overfishing' of sharks in Portuguese waters, was first refused and deemed 'too local' by the chief editor of the journal we submitted it to. I replied saying Portugal's commercial shark landings averaged 5.000 tons per year, which is 25% of the U.S.'s, while our shoreline is only 10% of the U.S.'s. Based on these statistics, I demonstrated that our shark catches were far from being 'too local' and the paper was then accepted and finally published in 2004.

We're *not* gonna need a bigger boat

Walter was a firm advocate of using circle hooks, which are predominantly more humane and lodge in the corner of the shark's mouth, rather than inside the gut, eyes, gills or even skin, as most 'J' hooks do. The 'J' hook is a traditional hook in the shape of its name (actually, it's named after its shape). It snags just about everything that crosses its path, including fingers and flannel checkered shirts. Circle hooks, on the other hand, have an extra bend inside and won't catch on anything unless whatever you want to snag is trapped inside the barbell of the hook. This greatly minimizes the chances of injuring sharks while fishing, although it seriously increases the difficulty in getting them hooked.

Once an animal bites the bait around a J hook, the hook will embed in whatever flesh it gets first as soon as the fisherman feels a slight pull on the line and gives it a yank. The circle hook, on the other hand, will snag nothing if the line pulls at the point where the angler feels the shark has taken the bait. The idea is to allow the animal to run with the bait and actually let it swallow it. Only when it's inside the gut, will the fisherman slowly apply pressure to the clutch of the reel. The bait slowly leaves the stomach and rises up the gullet to the mouth. The fisherman then gives his rod a firm yank and forces the circle hook to snag the corner of the shark's jaw, which heals nicely once the hook is pulled out on the deck. If it sounds hard, trust me, it is. And that's why it was amazing watching Walter in action as he skillfully reeled in a few small blue sharks like it was nothing.

Soon we had two young blues swimming inside the holding tank on Walter's boat. They were around 60 or 70 centimeters long (about 24 inches). I called the Oceanário to advise we'd be arriving at a different location than we had departed from, mostly because we were scared shitless of losing the animals, and decided that docking right next to the aquarium would be less stressful on the sharks.



The small 1,1 meter (3,6 feet) wide tank Mark Smith and I took on our blue shark run on the 24th of February, 2003. We brought back two small animals to the Oceanário de Lisboa that day; they both tolerated the transport tank beautifully for the duration of the six hours they traveled inside it.

Miguel Oliveira, our on-land Operations Manager, worked his sweet-talking magic and managed to have the usually fastened dock gate unlocked just minutes before we arrived. Soon Mark and I were gently hauling the

blues from the holding tank and into huge plastic bags, tough enough that the sharks couldn't bite through them. The bags were loaded with fifty back-breaking kilos (110 pounds) of water plus the shark weight. We then carefully poured both water and animals into a transfer tank in the back of the van, waved Walter Canelas goodbye, and drove the five minutes distance to the Oceanário in great haste.



A small blue shark swimming inside the transfer tank, minutes before being introduced to the Oceanário's Open Ocean exhibit. 24th of February, 2003

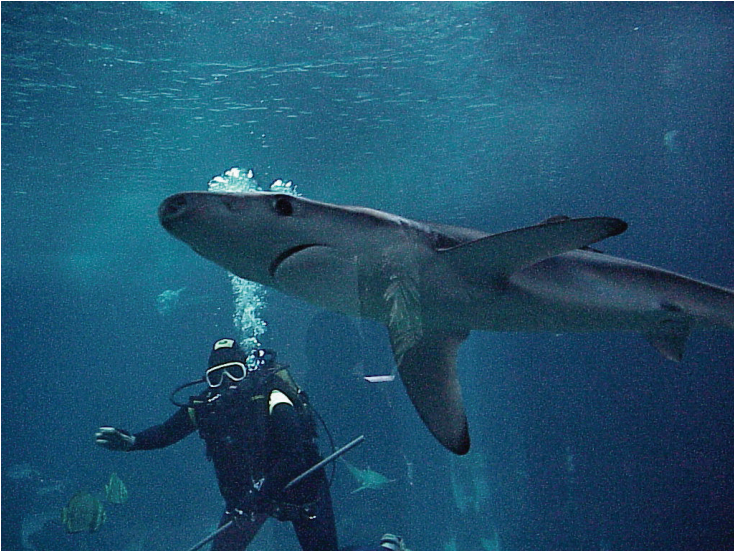
There's always a bigger fish

The little sharks swam ceaselessly inside the transport tank, which was amazing to behold since blue sharks are infamous for their unwillingness to adapt to captive circumstances. However, being young, small, and energetic, ensured that these two moved continuously; they demonstrated zero difficulty despite the tank's tight space. The juvenile blues were destined for the Open Ocean exhibit. Once we had moved them from the tank and into the Oceanário's large exhibit, Marta Couto, an aquarist, and I, jumped in the water to protect the little guys during their first time in their new habitat with all its scary predatory inhabitants. These included four 2 meter long (6,6 feet) sandbar sharks (*Carcharhinus plumbeus*), two 1 meter (3,3 feet) long jewfish (*Epinephelus itajara*), four multiple sized – yet rather large – potato cods (*Epinephelus tukula*), and one gigantic 1,5 meter (5 feet) long Queensland grouper (*Epinephelus lanceolatus*).



One of the naughty four sandbar sharks from the Open Ocean exhibit at the Oceanário de Lisboa. Photo by Áthila Bertoncini | athilapeixe.com

For a couple of sweet hours, Marta and I drifted through the water with the beautiful blue sharks, following their graceful darting flow as they soared across the tank. I was as concerned for them as any parent who had just dropped his kids off at a new school. I feared they were attracting far too much attention by swimming nervously near the surface and hugging the walls, occasionally breaking the water with their peeking snouts. Eventually things seemed quiet enough and so Marta and I left them in peace, to go shower. Minutes later there was a loud thump on the men's locker room as Luísa Moreno, another aquarist, peeked her head in while I was scrubbing myself. "Hey, João, your sharks are dead!" she shouted.



Marta Couto, an aquarist, protects a young blue shark from the predators in the Open Ocean exhibit at the Oceanário de Lisboa. 24th of February, 2003

I stared at the wet tiles in shocked disbelief! All that effort, I thought, to find our ‘youngsters’ had been eaten by larger creatures in the tank within hours of delivery... The most likely devouring villain, would have to be our larger jewfish, but we never knew for sure. “Should have stayed longer in the water...” was my immediate thought, and I vowed to not make the same mistake again in the future.

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