

# The giants of the sea, all but gone?

*In search of stories of a fish soaked in myth and magic, and uncovering other ocean mysteries along the way*

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When we get there at the break of dawn, Cox's Bazar is asleep and unexpectedly cold. Pinching at our cheek, making everyone scrunch up their noses. But reassurances drop in from right and left that the coast is rarely ever cold, for a long stretch anyway.

It proves true soon enough. Just as we enter Ground Zero of marine biologist Alifa Bintha Haque's study area, the mercury starts climbing.

The very broken and expansive Bangladesh Fisheries Development Corporation (BFDC) approved landing site for fish caught from the Bay of Bengal looms large and menacing. The open market stands just at the mouth of the Baghkhali River leading to the ocean. Alifa and her team of young researchers get to work immediately.

They plan to collect monthly data on landings of sharks and rays (elasmobranchs) caught by fishing vessels who spent countless days in the high seas.

It does not take long for the research team—Mahi, Nidhi, Nazia and Shawon and many others who haven't been named here—to get down and dirty.



PHOTO: FAYED MASUD KHAN

**A ray is being processed.**

monstrous fish to navigate the seabed and protect against any attackers. They swim like sharks, sawfishes are classified as rays: they have flattened bodies, with gills situated on their underside.

This is just a fraction of the facts provided by Alifa who has made this her life's research. Eyes darting from side to side, she misses nothing. And over the years, her search for sawfish led her down a rabbit hole of data uncovering trade routes, more giants of the sea at risk and a fisher population caught in the crossroads.

They manage to gather data for most of the landing that comes within a few hours that day. And the numbers are daunting.

We watch as buckets of sharks and shark pups trade hands for Tk 100 to Tk 200 per kg!

The fins will be removed, dried, packed and then exported through a non-customs border to Myanmar, Thailand, China and as far as the United States of America (on very rare occasions and the researchers found only one such instance).

This is also the same fate that sawfish, when they were regularly caught would go through. The fish is mired in myth and superstitions. Fins are prized for enhancing the taste of soups. The market gained popularity by the end of the past century further putting elasmobranchs at risk.

Alongside a commercial demand, superstitions follow this pallid-faced creature wherever it goes.

Locals tell me how the meat of sawfish can cure any and every disease, were we to consume the meat.

"People believe that eating just about any part of the sawfish can cure cancer. But the truth is there is really no scientific background to this consumption, belief, call it what you may," opines Alifa.

The day progresses in the marketplace. Nothing slows down until evening. By mid-day, both small country boats and seafaring trawlers have docked by the hundreds at the base of the market. They bring everything—tonnes of shrimps, bucket loads of puffer fish, little hills of hilsa and to our chagrin and utter disappointment, the haul would very often have guitarfishes, sharks and rays. They come in

expanse that can only be described as a two-storey tier of the city. It is a machan, but instead of a tree, it is precariously balanced on the concrete roof of the processing centres down below. Inside, people cut up the catch of the day. On the day we visit, one has eight guitarfishes, being cut and processed. The men armed with a thick butcher's knife, do a better job at filleting these cartilaginous fish, than say Rick Stein (in my opinion).

All elasmobranchs get the same treatment in the processing centres. Their fins, skin, and meat are separated, then dried and sent off to neighbouring countries.

This is not the only spot from where trade takes place on the Bangladesh coast. We take a tom-tom (local electric bike) to Nuniarchora, a sprawling fish-drying village just a few blocks away from Cox's Bazar airport.

The creek running beside the broken road is subject to tidal action. The ebb and flow of the waters from the Bay of Bengal cuts off the village from the main road but local tom toms have no qualms driving through the murky water.

Inside the village, the fine dust particles swish up as you walk through the narrow dirt-road, the sight of dried fish twirling in the ocean breeze is at once aesthetically pleasing and terrifying. All this is set against an azure blue sky. And as you walk the dried fish curtains lead to the sea. Here hundreds of fishermen sit under the blazing afternoon sun and pore over their nets, cutting, slicing, tying knots and preparing it for another haul into the sea.

It seems everywhere it's the older men who have stories of sawfish. I met one such old man in Chattogram. There he has been running a store, trading in shark and ray parts, for thirty years.

When I ask him about the fabled sawfish, he points me towards an image hanging on the wall. And there it was, a faded but coloured photograph of the old man standing beside a truck carrying one sawfish, some five years back. It was such a momentous occasion that it had to be photographed and hung up on walls.

Sawfishes can rarely be seen any longer. Researchers working for the past few years in this field also cannot boast



PHOTO: ALIFA B HAQUE

**Fins, tails and other parts of sharks being dried over a machan by the sea.**

us they are not equipped with the resources to implement the law on field. There is also another loophole around this law. Not ALL SPECIES are protected under the Wildlife Act and neither are all species under the CITES Appendix index, meaning they can be exported. But remember? All the species that are landed are pretty much immediately cut up, processed and sliced, which makes it impossible to identify and thus intercept the illegal wildlife trade.

Many of the packages are sent out through a non-customs port, where tiny loopholes such as the naming of the package and other little details, allow the products to be smuggled through.

And even with the presence of law, it

for further explanation.

Experts believe overall size of sharks and rays are going down, so is the number being caught on the regular. Many of them are also juveniles which is indicative of possible nursery grounds near the shore.

Their premonition and extrapolation prove partly true, until we reach the end of the trip and find ourselves in the newly renamed port city—Chattogram.

And just one day of survey around the market area, reveals massive hauls.

Covered in tarpaulin, inside that old store (I talked about earlier) lies a bloodied and bruised and very much dead shark that has taken up the entire room. Weighing in at nearly 300kgs,



PHOTO: COLLECTED

**Fishing vessels by the hundreds dock near the ghaat of the landing site to unload their catch.**

is very difficult to come up with sweeping measures when so little of the sea is known. Plus imagine imposing such sweeping measures on people who are already marginalised. The fishing community is one of the most economically poor communities in Bangladesh, so any conservation measures should take these factors into consideration.

Research on marine megafauna on the coast is still in its infancy. Most of what researchers and organisations have done or are doing does not go past the last decade.

But it's easy to tell the sea is full of strange mysteries. Each boat that docks brings back mementos of that mystery.

In Nuniarchora, it was in the form of a giant squid.

It came on an artisanal boat, sailing

this feels straight out of a Jaws movie, only unfolding in Chittagong but in vice versa fashion.

This was one of the twelve such similar sized sharks caught that day. All of them, pregnant. All of them gave birth either under stress or shark pups had to be delivered. There is no gorier sight, I have witnessed, neither a more painful one. Information of such landings are often relayed to the researchers through a network of fishers and traders they have established over the years.

The ocean keeps getting newer fleets of water vessels. The landings in Chattogram were most likely caught on industrial trawlers allowed to venture far out to sea. A need that has risen because it is now impossible to find such large species near shallow waters. Soon, even the deep sea will have been exhausted.

Final reflections

On my way back with a moment finally to myself, I recoiled at the extent of devastation both at sea and on shore. But there was some glimmer of hope. Elasmobranchs are finally receiving international attention and there is a global call for action to save the sea and its species.

Soon enough, the Dhaka smog and its claustrophobic skyline started to become visible through the window and I realised with a sigh that the mythical sawfish still remains in stories for me. But on its search, I found some despair for the loss in the oceans and I found hope in the research and in the resilience of nature.

It would be unfair to end this piece with anything but these lines by Sylvia A Earle, "Even if you never have the chance to see or touch the ocean, the ocean touches you with every breath you take, every drop of water you drink, every bite you consume. Everyone, everywhere is inextricably connected to and utterly dependent upon the existence of the sea."

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PHOTO: COLLECTED

**On the rare occasion, a sawfish is caught, traders immediately cut it up and process it for sale. Due to the superstition surrounding this creature, the meat is also sold at a high price.**

On the sprawling dirt-stained mosaic floor, fishers haul in the day's catch. The smell of blood, fish guts, burnt mobil and kerosene, betel leaf spittle and Hollywood cigarettes hang heavy in the air. An hour and the stench is everywhere. Hair, nostrils, at the base of your throat and through the mesh of your scarf. But nothing deters this bunch. The team divides into two and sloshes through the sea of blood and slime. One in search of sharks—pig eye, bull, tiger, hammerhead, spot tail, whale and spadenose sharks. The other looks for rays—blue-spotted, spotted eagle, whip, spintail and longtail butterfly, among others. And together, they are all looking for guitarfish, a close cousin of sawfish, the species that kicked off parts of this research and one that has barely been seen in the waters of Bangladesh in the last few years.

The goal of this painstaking data mining is to understand the biological sustainability of sharks and rays in the face of immense fishing pressure. It will also determine a possible conservation plan for marine mega-fauna. They collect DNA samples and take photos to accurately identify the species. Identify because, not enough research has been done on the coastal waters of Bangladesh to really know the range of animals found underneath the waters.

In between taking measurements and wiping away the one rowdy fish scale from her forehead, Alifa tells me stories of sawfish. The more you hear, the more the bewilderment. They are gigantic with rostrums alone going up to 5ft in length and looks like a double-edged saw. Teeth, poking out from both sides, the rostrum is enabled with an electromagnetic field, allowing the



PHOTO: FAYED MASUD KHAN

**Just a lean day's catch from the sea shows sharks, rays and other slow growing species.**

small and big installments.

Through a little-known Cox's Bazar We spend three days in Cox's Bazar, taking notes, walking to processing centres. We even manage to visit the sprawling dry fish processing centre there—aka Nuniarchora.

In between stops at the fish landing site, we walk to a place that can be best described as a two-storey back alley of the tourist town. All alleys lead to even smaller alleys, and all happen to have a scraggly kitten and a very stained door that opens up to a processing centre.

Through her work, Alifa and her team, have built a rapport with the people here. They walk in and exchange pleasantries. Then two men lead us up a flight of stairs, out into an open

of a live sighting.

Overfishing and habitat loss have taken a heavy toll, wiping out populations entirely from some regions. No one who catches a sawfish or any other elasmobranchs throws them away.

They have good market value. In Bangladesh, sawfish's close cousin guitarfish (which we see plenty of now are very likely suffer the same fate as sawfish). At least 29 species of sharks and rays, those which are critically endangered are protected under the Wildlife Act 2012.

But it is likely that much of the trade is going on without much implementation of the Wildlife Act.

The Bangladesh Forest Department is the enforcing body but experience tells



PHOTO: COLLECTED

**One of the team members working with Alifa B Haque.**

back from the deep sea. Tentacles longer than the arms of the man carrying the animal, this squid could have once been a part of a huge catch. But it is just glaring proof, that one of the most productive bays in the world is quickly running dry, at least in terms of biodiversity. However, it was fast gaining other things, discarded packets of potato crackers, plastic water bottles and straws to name a few.

We spend many more days traversing the coast (this time only the south-west), in search of more catch data and more stories.

"You may have noticed the catch size is not so huge anymore," says Alifa. While I personally had no background or baseline on the matter, I prodded her