

INDIAN OCEAN: Fishing the "Zone" in Sri Lanka



LAURIE GRACE (map); WILLIAM F. HAYBY (globe)

Sri Lanka depends on data to protect its rich coastal fisheries, but something stronger is needed to keep the poachers at bay by Anton Nonis

The sun has not yet risen on this Friday morning in March as I step on board the *Kamalitha*, a 10.4-meter (34-foot) fishing trawler tied to a dock in the harbor at Beruwala, on the Sri Lankan coast 55 kilometers south of the capital city of Colombo. Around the vessel, the busy little harbor bustles in the darkness as scores of other small but sturdy trawlers either are getting under way or are pulling up to unload their weary crews and the previous night's catch.

As we head out of the harbor, I duck into the boat's cabin to join my shipmates for the voyage. There is a tense moment as the skipper barks out crisp orders to the crew and we swerve to avoid a massive inbound ship. Then it is smooth sailing as we head southwest under a cloudless sky.

Dressed in a striped, cotton Henley shirt and madras shorts, the 29-year-old skipper, Kapila Nishantha, already has 17 years of experience fishing in Sri Lankan waters and has been a captain for the past five. His three-man crew—Gamini Silva, Palitha Dodampe and Vincent Vithana—is also seasoned, having been recruited into the same profession as their fathers and grandfathers. My role is that of an observer; as a newspaper reporter based in Colombo, I have written several articles on commercial fishing and am eager to see the indus-

try from a new perspective. As it turns out, I am not the only observer on board. A fisheries inspector, Susantha Wijesuriya of the Ministry of Fisheries and Aquatic Resources Development, has been charged with collecting data on the catch, which the ministry will use for statistical purposes. The data will also be put to scientific use: the ministry routinely shares information and works closely with the National Aquatic Resources Research and Development Agency (NARA), a governmental research center in Colombo.

The official interest reflects the fact that fishing has for many years been a prime foreign-exchange earner for Sri Lanka, raking in billions of rupees (tens of millions of dollars) annually. Some 100,000 Sri Lankans support their families comfortably as fishermen, and thousands more work in related jobs, such as mending nets and selling seafood to the resort hotels along the coast and in the central hills. Not surprisingly, the number of young people seeking to become fishermen is on the rise.

So far there has been plenty of fish for all. The total catch was around 217,000 metric tons in 1997. Tuna constituted almost half the catch, followed by shark at about 35 percent and billfish (marlin,

sailfish and swordfish) at around 10 percent. Ministry sources say the tuna varieties are actually increasing at present. A drop in the shark catch, however, which consists mostly of blue shark, has been observed over the past year. Officials hope that the blue shark fisheries will recover as larger boats and access to better bait allow fishermen to increase their catch of the more desirable tuna.

A more difficult problem involves poaching within Sri Lanka's 370-kilometer (200-nautical-mile) exclusive economic zone (EEZ), within which only Sri Lankan vessels have the right to fish. Estimates are that foreign trawlers, which are typically much larger and better equipped than their Sri

BERUWALA HARBOR, a major fishing port, is located 55 kilometers south of Colombo, the capital of Sri Lanka. Relatively small, wooden trawlers (top photograph) are the standard fishing vessel. Two of the boats based in the harbor (right) are fisheries ministry craft devoted to helping fishermen in trouble.



ALL PHOTOGRAPHS BY ANTON NONIS



Lankan counterparts, snatch up to 25,000 tons of fish every year from Sri Lanka's waters. For years, Sri Lankan officials had only two boats to patrol the country's 460,000-square-kilometer EEZ and could do little to stop the poaching. More recently, the administration of President Chandrika Bandaranaike Kumaratunga has pledged to create a larger, better-equipped coast guard to address the problem.

Such concerns seem far away on the *Kamalitha*, as we push out to sea. With the sun rising into the sky behind us and the

The longlines go out first. There are five segments, tied end to end, for a total length of 2,500 meters. Evenly spaced buoys keep the lines near the surface. Along each 500-meter segment are some 25 branch lines, spaced at intervals of about 20 meters. Each of these vertical branch lines measures about 15 meters and has a baited hook at the end. Many of the hooks are baited with hunks of squid, a favorite of tuna. Scraps of beef are also used to lure sharks.

The longlines are followed by the gill nets, which are held in place between a top rope kept near the surface by polyurethane floats, and a weighted bottom rope. There are a total of 25 pieces of net, each measuring about 100 meters wide, suspended side by side between the top and bottom ropes. So when deployed, the net is like a wall of mesh 2,500 meters wide. A thick, 50-meter rope secures the end of the gill net to the stern.

With the lines and nets deployed, once again there is nothing to do but wait. To amuse themselves, the crew members sing or hop overboard for a swim. After the sun slips below the horizon, a chilly breeze blows past intermittently, reminding us that we are in water kilometers deep. Around us the murky ocean seems endless.

In the darkness on deck, the only light comes from the cabin's windows and, on the eastern horizon, the dim glow of coastal towns. Inside the cabin, crew members take turns napping on two narrow bunks. For skipper Nishantha, though, there is no rest. He spends most of the evening in the captain's seat, going out on deck from time to time to peer into the night.

In the early-morning darkness, the catch is hauled in. It amounts to almost 400 kilograms (about 880 pounds) and includes three tunas, each weighing around 25 kilograms, and some blue sharks. To keep them from biting, fish still struggling are clubbed

CAPTAIN Kapila Nishantha (left, in striped shirt) collects floats that are to be tied to the gill nets. Fishers Palitha Dodampe (center, in white T-shirt) and Gamini Silva (center, in green shirt) attach floats to a net. The catch (above) includes a mahimahi and a tuna.

on the head, blood spattering on the deck.

As the catch is tallied, Wijesuriya, the fisheries inspector, begins collecting data. For each fish he measures various dimensions, such as the length from snout to caudal fin, and notes the approximate location where it was caught and the type of fishing method that snared it. The type of net or length of longline (and number of hooks) are all recorded. According to Champa Amarasiri, the head of NARA's marine biology division, the data are used to estimate the age of the fish and to make inferences about the status of the fisheries.

Wijesuriya's presence on the *Kamalitha*, however, is unusual. With only 173 inspectors and a fishing fleet of 15,000 to 20,000 "day" and "multiday" fishing boats in Sri Lanka, the fisheries ministry and NARA must rely on the fishermen themselves to log most of the data on their hauls.

For the captain and crew of the *Kamalitha*, data logging is already as much a part of their world as gill nets and compasses. And in the chilly, predawn darkness 90 kilometers out at sea, with the fish stored, the nets stowed and the data logged, it is time to return to port. Nearing the harbor, we join dozens of boats returning from all directions. As the fish are unloaded and sold or auctioned, other trawlers put out to sea, sleepy fishermen head home to their families and a new day dawns on Beruwala Harbor.

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waves thudding on the hull, we are headed to a point about 90 kilometers from shore, well within the EEZ. Filling the time, Vincent rhapsodizes about a young woman in a neighboring village with whom he is smitten. Later, Gamini fires up the tiny stove in the cabin and begins preparing a meal of rice, vegetables and (what else?) fish curry. We eat heartily, the sea air having made us ravenous.

By three P.M., it is finally time to cast bait.