
Shark Research Institute



Newsletter

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Whale Shark Tagging Update

by Sue Smith

Greetings from South Africa! Life here sure has been busy in the last few weeks. SRI has extended itself into further reaches of the whale shark-inhabited world, and informed many more people about the Institute's programs.

At the end of October, Andy Gifford, Rob Allen and I headed off to Mozambique with the staff of African Water Sports for a large scale whale shark tagging effort. African Water Sports had arranged for a group of 60 divers to join us in the tagging project. The operation was very successful with 28 whale sharks tagged in three days. The success of the project was largely due to the very cooperative sharks and Rob's great microlight flying abilities. The sharks were easily seen from the air, and the boats were guided onto the sharks by Rob. A generous contribution of R1,000 (\$200 US) was donated



Rob Allen and the SRI microlight aircraft in Mozambique

to the SRI by African Water Sports, and this money, along with the PADI Foundation grant, will go towards the development and deployment of a satellite tag.

The SRI team also hosted

Catrin Hofstetter, a Swiss journalist and television producer who filmed the tagging operation for Swiss television. The program will be aired before the CITES conference next year.

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The success of the weekend was the result of Andy Gifford's hard work, dedication, and skill at coordination. We are grateful for his continuing efforts, and look forward to more projects.

Two weeks later we went to the Seychelles to assist David Rowat in the establishment of the SRI whale shark tagging base. Thanks to the

Seychelles after we returned home. The rest of our time in the Seychelles was spent working with European and British journalists, assisting them to get photos and video footage of the sharks and the tagging operation, doing interviews and sharing with as

follow shortly. In the meantime, we at SRI-South Africa wish you the very best for Christmas and the New Year!

MILLION DOLLAR WHALE SHARKS

Helen Newman just returned from China where she met Dr. Ni from Hong Kong University. "He spends time also in Taiwan and informed me that there the whale shark is known as the million dollar shark (HK\$) as that is what it is worth. They now serve it as sashimi so the ultimate value will be considerably higher. . . all rather bad news for the whale shark," reports Helen.

PUBLIC HEARINGS COMING UP...

January 6-23, 1997 National Marine Fisheries Service (NMFS) will conduct a series of 10 public hearings along the Atlantic coast on a proposed limited access system for Atlantic swordfish and Atlantic sharks.

On December 9 - 11, 1996 NMFS held three public hearings (Silver Spring, MD; St. Petersburg, FL; and Danvers, MA) on proposed regulations, published in the Federal Register on November 6, 1996, modifying management of Atlantic bluefin tuna, billfishes, and sharks. The proposals consolidate several different sets of proposed regulations (50 CFR Parts 285, 644 and 678) into 50



Sue Smith (4th from left) and other speakers at SUBIOS, the international conference in Seychelles

work of David Rowat and Andy Gifford, and the sponsorship of Seychelles Underwater Centre, Cable and Wireless (Seychelles) Ltd., PADI Project A.W.A.R.E. Foundation, and the Coral Strand Hotel, SRI was able to send Rob Allen and our microlight to the Seychelles for three weeks, and Jason Gifford, Linda and Cuen Hall, and me to the Seychelles for the final week. Many hours were spent in the water, and 21 whale sharks were tagged. David Rowat and the Seychelles Underwater Centre staff learned how to locate whale sharks with the microlight, mastered SRI's tagging technique, and began logging data. And they continued to expand SRI research in the

many people as possible the work of the SRI and the Whale Shark Study. In just a short time the entire European dive community should be aware of the Shark Research Institute and whale sharks! We all thought we were in for a great holiday, but it was great to get back home to have a rest!!

One of the highlights of the trip to the Seychelles was meeting Stan Waterman. (Unfortunately, during my trip to the USA last year, when I was in Princeton Stan was out of town.) We also had an opportunity to see some of his documentary films, which were impressive.

We have another trip scheduled for Mozambique at the end of November, and a report will

CFR Part 630. The proposed regulations revise monitoring and reporting requirements, address enforcement concerns, and remove inconsistent or outdated language.

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Return to Cocos: being a report on the recovery of and proliferation of the marine environment since I dove here five years ago

(Excerpts from an article for Ocean Realm Magazine by SRI Advisory Board Member Stan Waterman)

I am writing this during my sixth visit to Cocos Island. A mist of rain shrouds our boat. The dense verdure that clothes every inch of the escarpments is an even richer, darker green, punctuated by the fresh white of pencil-thin lines of falls, following the almost vertical water courses three hundred feet to the sea. This is an island that has 288 inches of rain a year.

On a late afternoon dive I encountered one of those rare happenings on the reef that make diving an on-going adventure. Late day, going on toward sundown, is most apt to be a time for predatory happenings on the reef. And thanks to the amazing ability of video to resolve fading light one can continue to shoot and have the resulting tape appear to have been taken in broad, mid-day light. A lady diver and I opted to work the shallow area on the south side of Manolete Island. All the other divers were dropped off at the north end where the hammerhead action was to be expected. We lucked out with a shark-hunting action

the likes of which I had never seen.

I was lying on the sand, quietly watching some jawfish that were darting out of their holes to seize plankton. My dive buddy suddenly appeared, beckoning frantically, her eyeballs bulging like a demented junky. I followed her. A short way up the reef I came across the reason for her look of part terror, part amazement.

The reef, as far as we could see, was swarming – alive – with whitetip reef sharks. Their ranks, numbering in the thousands – yes, I said thousands – were interspersed by heavy, predatory blue-spotted jacks. All were racing through the broken topography of the reef at high speed, covering a field as far as the eye could discern. They threaded their way through the coral, a dozen or more converging on a crevasse to jam their noses into the crack. We never saw any feeding. The mass of hunters swept over schools of grunt and the usual scattered family of reef fish without apparent interest. I do not understand this phenomenon. Why don't the predators snap up the fish within easy reach? They seemed caught up in the mass frenzy, like a human mob put on by a spellbinder. Whatever the reason for this spectacular performance, it provided one of those rare encounters that can – and does – make an entire week's diving for me. I didn't really intend to recount my diving experiences on this trip; but the above account well

illustrates the health of the marine ecosystem here. And we may owe our thanks to a prudent government. The sharks have had a few hundred million years to work out their balance in the marine ecosystem. Within a time period that amounts to no more than the blink of an eye, the time frame for the human presence on earth, the continuation of some species of sharks is seriously in question. I won't play again on the much-used theme of man's affront to Nature. But it is apparent that if we leave those natural processes of regeneration alone we do a service to Nature.

GOING, GOING... BOOMING TRADE THREATENS WORLD'S SHARK POPULATIONS

On December 5th the World Wide Fund for Nature (WWF) called for urgent international action to improve conservation and management of sharks worldwide as a result of burgeoning trade in their products.

Exploitation of sharks for their meat, fins, skin and internal organs is vast and increasing rapidly. But in spite of the buoyant international industry, a new TRAFFIC Species in Danger report warns that few if any controls exist to regulate shark fishing and monitor the trade. (The TRAFFIC Network, the world's largest wildlife trade monitoring program, is a program of WWF and IUCN, the World Conservation Union.)

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The report, *An Overview of World Trade in Sharks and other Cartilaginous Fishes*, by Debra A. Rose, indicates that most sharks are caught as a result of bycatch or incidental take and the true volume of shark landings is likely to be far greater than official figures. (Most scientists estimate the world catch to be 100 million or more sharks annually). At least 125 countries are now involved in the trade of shark fins. "WWF is calling for immediate action to save shark populations all over the world from commercial and perhaps even biological extinction," said Michael Sutton, Director of WWF's Endangered Seas Campaign. "There is absolutely no management on an international basis for sharks anywhere in the world and very few countries control shark fisheries in their own waters. Most sharks are extremely vulnerable to over-exploitation, tending to be long-lived and slow to mature. Removing sharks, the apex of the ocean food chain, also risks unbalancing the entire marine ecosystem."

Hong Kong lies at the center of the growing shark fin trade. According to Customs data, total imports of shark fins rose from 2.7 million kilos in 1980 to 6.1 million in 1995 – an increase of more than 120 per cent. Increasing demand for shark fins (a Chinese delicacy used in soup for more than 2,000 years) has also forced up prices, making shark fins one of the world's most expensive fisheries products. Retail prices in Hong

Kong range from US \$40 to \$540 per kilo.

The demand for shark meat is also rising with the United Nations Food and Agricultural Organization (FAO) reporting a doubling of world exports between 1985 to 1994. In Indonesia, the world's largest fishing nation in terms of reported landings of sharks and other chondrichthyans, the catch has risen from 42,900 tonnes in 1982 to 92,900 tonnes in 1994. Shark fillets are commonly offered in supermarkets throughout Europe, South America and the USA. The European Union (EU) is a significant consumer with imports soaring from 27,100 tonnes in 1980 to a peak of over 42,000 tonnes in 1994. Sharks feature regularly in the diets of Europeans and an estimated 30 per cent of fish-and-chips shops in southern Britain sell piked or spiny dogfish as "rock salmon." The UK is Europe's second largest shark fishing nation behind France, landing an average 20,400 tonnes a year.

Other markets also exist for shark cartilage (marketed as an unproven cancer treatment), shark liver oil (used in the manufacture of cosmetics, pharmaceuticals, lubricants, and bactericides), and shark skin for leather products.

"There is a desperate need for basic information to assess the threat to sharks posed by the global trade in their products," warned Steven Broad, Executive Director of TRAFFIC International. "What we do know is that the trade is vast, sharks are

extremely vulnerable, and most fisheries are unmanaged and unmonitored."

The report calls for national and international management of shark fisheries and more information about catch and trade. (Note: Copies of the overview can be obtained from TRAFFIC International, 219C Huntingdon Road, Cambridge CB3 0DL, United Kingdom, for \$15. All orders are payable in advance by check or money order in US dollars.)

The 1996 IUCN Red List of Threatened Animals includes a number of sharks as "vulnerable": the basking shark, porbeagle, and sandbar shark. The great white shark was also listed as "vulnerable" because its populations (which have always been small) have declined dramatically in recent years. The Ganges shark is listed as "critically endangered" and the dusky and sand tiger shark as "endangered". Four sawfishes are also listed as "endangered."

Note: On December 11th the EU adopted one of the world's toughest laws regulating the international trade of endangered animals and plants and their by-products.

JAPANESE CAPTAIN CHARGED WITH "FINNING"

The captain of a Japanese fishing vessel was charged in Halifax on December 11, 1996, with illegally slaughtering sharks for their fins in what fisheries officials say is the first case of

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its kind in Canada. The charge comes amid a growing international outcry against the practice of shark "finning" in which commercial fishers cut off the valuable fins and throw the still-living fish back into the sea.

Ted Maher, Regional Director of Conservation and Protection for the Department of Fisheries and Oceans, said this is the first charge since Canadian fisheries officials outlawed finning last year. "It's like slaughtering a rhino for its horns and leaving its carcass," Maher said.

Mitsuo Ozaki, captain of the *Shoshin Maru 38*, is accused of breaching his license to fish blue sharks in Canadian waters by removing an undisclosed number of fins and discarding the carcasses. If convicted under the federal Coastal Fisheries Protection Act, he could face a fine of up to \$100,000 and his ship could be seized. Ozaki had the charge explained to him through an interpreter during a brief appearance in a Halifax courtroom. His lawyer, William Moreira, asked that his client's plea be postponed to allow time to contact the ship's owners in Japan.

Maher said that a Canadian observer aboard the *Shoshin Maru 38* reported the alleged offence. The ship, fishing off Nova Scotia within Canada's 200-mile limit, was ordered into Halifax.

Environmentalists said it's time something is done to bring order to the virtually uncontrolled shark fishery. "There are a lot of things that go on out there, and because it's 100 miles from

land, we don't hear about it," Mark Butler of the Ecology Action Centre in Halifax said. "I'm glad the observer had the courage to report it."

The commercial blue shark fishery off eastern Canada is growing rapidly. Reported catches by Canadian boats increased to 123 tonnes in 1995 from just eight tonnes in 1990. And fisheries scientists acknowledge that many catches go unreported. Harvesting of shark fins is also banned in US waters but there is no restriction on the practice in international waters.

Graeme Hamilton
Halifax Daily News

NEW DANGER TO WHITE SHARKS

A new threat to Australian white sharks has arisen with the increase in tuna fishing in South Australia. The tuna are towed alive in nets to Port Lincoln to be sold to the burgeoning Asian tuna market. However, the tuna attract predatory sharks, in particular white sharks, *Carcharodon carcharias*, and bronze whalers, *Carcharhinus brachyurus*, which are shot to protect the catch. Now both the Australian Marine Conservation Society and the Australian Seafood Industry Council have begun campaigning for the protection of the white sharks by ending any targeted fishing and by putting the sharks under protective legislation. In January, the Tasmanian State

Parliament moved to officially list white sharks as protected in Tasmanian waters; other states may follow.

Source: Shark News, No. 6:11

Global Shark Attack File

On May 28, 1996, Donovan Kohne (18) was surfing at Wilderness, in the Western Cape Province of South Africa, when he was attacked by a white shark. The shark approached the surfer from behind, biting his surfboard and lower legs. Then the shark shook Kohne from side to side and flung him above the surface. The surfer landed on the shark's back, then scrambled back onto his surfboard and caught the next wave to the beach. Kohne's injuries were surgically repaired at George Hospital.

On September 15, 1996, the front-page story in South African newspapers was a "shark attack" on one of the country's top spear-fisherman, 29-year-old Gyula Plaganyi. The incident took place on a shallow reef off Hibberdene on the KwaZulu-Natal coast. Plaganyi, 200 metres past the backline of breakers, had just speared a cuckoo bass when the 3-metre shark swam into view, and he prudently offered the speared fish to the shark. When the white shark ignored the fish, Plaganyi nudged the shark with his spear. The shark responded by nudging the spearfisherman

and pushing him around on the surface. Plaganyi stabbed the shark's snout and mouth with his spear, then shot it behind the eye. Plaganyi was not injured by the shark, and as he and his dive buddy swam ashore they saw the shark vault out of the water, apparently attempting to dislodge the spear. This incident is classified as a 'provoked attack'; although the shark made physical contact with the spearfisherman and displayed aggression, the diver - not the shark - initiated the encounter.

Andrew Gifford

WHALE SHARK FISHERY IN THE PHILIPPINES

The following is a letter from Rizal D. Aportadera, M.D., Davo City, Philippines, that was published in *The Inquire*, Manila's daily newspaper.

"Coming home to Davao City from Cagayan de Oro recently, I noticed dried, ribboned strips of fleshy yellowish-white meat being sold along the highway between Talisayan and Blinguan. My curiosity got the better of me and we stopped to inquire what it was. We were informed that it was *tawiki* or meat of the whale caught by local fishermen. At an eatery near the beachfront where we had lunch, there was a picture that showed that what the local folks referred to as whales were actually whale sharks which feed

yearly in the krill-rich waters near Camiguin. According to the owner of the eatery, it is usually between the months of February and April that these whale sharks arrive to feed. When they come, fishermen are ready with their spears to catch and kill them. Last March, the local fishermen were able to land 33 whale sharks which they butchered. I am writing this with the hope that local and national officials will come to the rescue of these docile creatures. If such wanton killing is not stopped, this species will soon be extinct."

FROM THE CAGE...

Congratulations to Theresa and Keith Markey. On September 1st they became parents of Christopher Keith, a 5-pound, 13-ounce baby boy.

MEMBERS' BOOKSHELF

Great White Sharks, The Biology of Carcharodon carcharias, edited by A. Peter Klimley & David Ainley. San Diego: Academic Press, 1996. 517pp.

This reference book presents information on anatomy, behavior, ecology, distribution, population dynamics and interactions between humans and white sharks. It establishes a baseline from which additional research on this species might proceed.