

Shark Research Institute Newsletter



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Whale Shark Sanctuary in Belize



Photo courtesy Henry Fine, SRI

More than 3,000 acres of ocean surrounding Little Water Caye Island in southeastern Belize is being set aside as a sanctuary for whale sharks. The area, known to divers for its gathering of whale sharks, is also an important breeding area for many species of reef fishes. The protected area was set up by a Belize-based organization, Friends of Nature, and is being funded by Conservation International. Dr. Sylvia Earle, Executive Director of Conservation International's Global Marine Programme, welcomed the establishment of the sanctuary as a way of protecting whale sharks but noted that is also an important area for biodiversity "As we hear stories about the precipitous declines of fish populations around the world it becomes even more critical to protect these unique places," said Earle. "The local communities that founded Friends of Nature were the first to discover the rare whale sharks that congregate in the area and are determined to protect them. By promoting marine education in the local schools and supporting eco-friendly tourism, they have set an example for how conservation, local communities and responsible travel can work in harmony to save the marine environment." explained Costas Christ, Senior Director of Conservation International's Ecotourism

Programme. The plan is to work with local communities to develop a sustainable income by eco-friendly tourism, allowing divers to interact with the whale sharks through operators who are committed to avoid disturbance to the animals, with the income from whale shark tourism being used to manage protection of the marine environment.

New Limits for Atlantic Spiny Dogfish

The Atlantic States Marine Fisheries Commission (ASMFC) set next year's fishing limits for overfished spiny dogfish sharks at scientifically defensible levels. A record number of conservationists, scientists, divers, aquarists and other citizens attended the Commission's meeting in New York and spoke in favor of conserving the sharks. Public support helped persuade a majority of the voting states to reject proposals for excessive fishing limits championed by state officials from Massachusetts and North Carolina.

Last February, the ASMFC adopted a Massachusetts proposal to set the dogfish quota for the 2003 fishing year at double the level recommended by scientists and to allow the limit per trip to exceed technical recommendations by an order of magnitude. Massachusetts fishermen, primarily from Cape Cod, are responsible for nearly 80 percent of the total U.S. Atlantic dogfish landings. Excessive ASMFC dogfish limits undermined federal dogfish recovery efforts, negotiations with Canada regarding the same population, and the U.S. leadership role in international shark conservation initiatives. The higher allowances in state waters resulted in driving dogfish fisheries closer to shore, increasing the risk for incidental capture of bottlenose dolphins, sea turtles and

Atlantic sturgeon.

Dogfish, like other sharks, are especially susceptible to overfishing because they grow slowly, mature late, and produce few young. Female spiny dogfish produce only six pups on average after a two-year gestation period. Dogfish fisheries target large, mature females based on market demand. Lax limits on this practice have led to a 75 percent decline in reproductive females and virtually no offspring for the last seven years. The new science-based limits take effect May 1, 2004. Damage to the population is expected to take several decades to repair.

The motion to set science-based limits was proposed by a representative from New York and supported by Maine, Connecticut, Maryland, Virginia, South Carolina, Georgia, the National Marine Fisheries Service and the U.S. Fish and Wildlife Service. Representatives from North Carolina, Rhode Island, Massachusetts and New Hampshire supported much higher limits, contrary to overwhelming scientific advice. Florida abstained from the vote, while New Jersey issued a "null" vote. Delaware representatives were absent. *Sonja Fordham*

Mark Your Calendars

- Planning to attend Adventure Expo on January 10 & 11, 2004, at the Jacob Javits Center in New York city? If so, please stop by Booth #669 and visit with SRI staff & volunteers. Admission to the show is \$15, but SRI members that register online (www.adventureexpo.com) and use the promotional code (SHAR) receive a discount.
- Dean Fessler, SRI Education Director, will be the guest speaker at the Philadelphia Chapter of the Explorers Club on January 15, 2004 at Independence Hall. His topic: *White Sharks of South Africa*.
- SRI will also have a booth at the London International Dive Show at Excel, Docklands, March 27 & 28, 2004. Directions & show hours are available at: www.diveshows.co.uk
- Beneath The Sea is the largest consumer dive show in America. The show, held at the Meadowlands Convention Center in Secaucus, NJ from March 26 through 28, 2004, features seminars, workshops, parties, special events, photo contest, a spectacular film show and exhibits by hundreds of manufacturers and organizations. Register online at www.beneaththesea.org.

GLOBAL SHARK ATTACK FILE

SRI maintains the Global Shark Attack File (GSAF) as a resource for researchers, physicians and the media who require accurate information about these incidents.

AUSTRALIA: On October 31, at Kinka Road, Seal Rocks, NSW, a surfer's leg was bitten by a shark. On December 8, at Colindena Beach in Victoria, a surfer was passing over a shoal of sharks, when one of the sharks grabbed his leash and towed him a short distance. The surfer was not injured.

INDIA: On November 11, Mark Moquin, 35, was at Mahbaipuram Beach, 37 km south of Chennai (Madras) when his index finger was lacerated by a shark.

SOUTH AFRICA: On November 27, Seldon Jee, 21, disappeared while spearfishing at Sodwana. His severed hand was recovered and a 4 m tiger shark was seen in the vicinity.

USA: Hawaii: At 13h00 on October 5, at Cove Beach, Kihei, Maui, Clara Alo, 41, was swimming when a 4' grey-colored shark scraped her thigh and bit her knee. On October 31 off Makua Beach, Kauai, champion surfer Bethany Hamilton, 13, was lying on her board and paddling when a tiger shark severed her arm. **Florida:** At 08h15 on September 29, Steve Johnson, 16, was surfing at North Hutchinson Island when his arm was lacerated by a shark. On October 5 at 12h00, John Demartino, 50, was sitting on his surfboard off Crawford Road beach approach at New Smyrna Beach, Volusia County, when his left foot was bitten by a shark, and at 14h00, surfer Rick Eckstein, 30, was off the South Jetty at New Smyrna Beach when his leg was bitten. At 14h30 the same day, a shark lacerated the foot and ankle of a surfer, 18, at Stuart Beach, Martin County, and at Ocean Reef Park, Singer Island, a surfer sustained minor puncture wounds in her hand from a shark. On October 14, near Patrick Air Force Base, Brevard County, the foot of a surfer, 19, was bitten by a 4' shark.

Pregnant White Shark caught in NZ

From photographs of the shark, which was caught in a set net, Department of Conservation scientist Clint Duffy said the shark appeared to be at least 6m. This is only the second pregnant great white caught off New Zealand's coast. Fishermen saved two pups by caesarian section. Marine biologist Peter Crabb said the mother's death was a tragedy that could have been avoided by banning set-netting in near-shore areas.

News from SRI Field Stations

Seychelles

• On October 17, divers found a dead whale shark in Baie Ternay Marine Park at a depth of 25 metres. The shark had apparently become tangled in an illegal shark net. Tissue samples were taken for DNA analysis and the body disposed of 3 nm offshore. • A SPOT2 Satellite tag deployed in early October was recovered by an octopus fisherman hunting along a reef off South Mahe. The tag had become entangled on coral when the shark passed by and had detached. The fisherman returned the tag and it will be re-deployed next season. • On November 13, the first part in a new series of Seychelles Definitive Stamps was issued and features a whale shark for the first time in Seychelles Stamp history. The seven "Coral Reef Fish" stamps were designed by Andrew Robinson, a well known UK stamp artist.

Mozambique

The Government of Mozambique has declared Qurimbas Archipelago a National Park and granted Bazaruto Archipelago National Park full protection. The move creates two new marine reserves and safeguards the future of land and marine species including dugongs, coelacanths, whale sharks, four species of dolphins and five of the world's seven marine turtles. Humpback and minke whales also visit these areas during their annual migrations. The sea around Bazaruto is a vital habitat for more than 800 species of fish and the coral reefs in Quirimbas are composed of 50 genera of coral. It is among the richest coral reefs in the world. Elsewhere along the Mozambique coast, however, marine life remains at risk; SRI recently received a reports that four whale sharks were finned and long liners are shooting orcas.

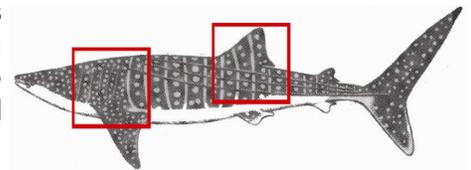
Members' Bookshelf

- *Field Guide to the Great White Shark* by Aiden Martin; 208 pp. \$35 plus S&H. Order direct from: <http://www.elasmo-research.org/books.htm>
- *Shark Attacks of the Twentieth Century from the Pacific Coast of North America* by Ralph Collier Scientia Publishing, LLC, 296 pp, \$60 plus S&H. This is the best book published to date on shark attacks. Go to <http://www.scientiapublishingllc.com> to order direct from the publisher.
- To download WildAid's superb report on shark finning, go to: <http://www.wildaid.org/resources/>

Photo ID Catalogue of Whale Sharks

SRI's whale shark tagging programs have enabled tracking the movements of individual sharks: Satellite telemetry provides real-time tracking information and visual ID tags confirm travel of tagged individuals from one area to another. Another tool used to track and identify individual animals is photography. Valuable information about the biology, ecology and global movements of whale sharks can be gained by re-identifying individuals. However, the recognition of individual sharks relies on photographing specific areas of the shark's body: The gill area and first dorsal fin. The patterns on the right side of the animal differs from that on the left, so both sides should be photographed.

Since 1995, divers have been reporting sightings of whale sharks to SRI and the same year SRI member Brad



Norman began cataloguing individual whale sharks at Ningaloo Reef, Australia. Last year another SRI member, Jason Holmberg, developed digital image recognition software to assist in the re-identification of catalogued whale sharks. We urge all members to continue to report sightings of whale sharks and send any photos of whale sharks to marie@sharks.org. There are areas of the world where the sharks are not protected and all locational data for images taken in those areas will be deleted by SRI before placing them online, but photographers supplying images to the catalogue will be notified when and where matches occur.

Thank you to our Supporters

SRI is very grateful for the continued encouragement and support of:

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SRI Welcomes New Trustees

Two new Trustees were elected to our Board at the November meeting: Stephen Nageiwicz and Elizabeth Murdock. Please join us in welcoming these two outstanding individuals to SRI's Board of Trustees

Stephen Nageiwicz is multi-talented; he is a columnist, recognized by the Explorers Club as Explorer of the Year 2000, owns and operates the *Diversion II*, and is a USCG licensed Captain for commercial diving and oceanographic projects. "I am proud to become a member of the Institute and look forward to lending my expertise, resources and help to growing the SRI,"



said Nageiwicz. As Executive Director of the Explorers Club, he developed and managed their annual operating budget and endowment funds, successfully recruiting many major corporate sponsors and patrons. Currently, he is the Facility Manager of the James J. Howard Marine Sciences Laboratory at Sandy Hook NJ and manages the operations of marine sciences and oceanography labs for the State of NJ, coordinating operations with six major research organizations.

Elizabeth Murdock specializes in endangered species conservation, focusing on both domestic and international environmental issues, and she has designed and implemented successful public education, advocacy, and on-the-ground

conservation initiatives for numerous imperiled species, including sharks. As manager of WildAid's Shark Conservation Program, Murdock worked alongside SRI to secure the Appendix II listings for whale sharks and basking sharks at CITES in 2002, and she also ran a national high-profile endangered species campaign at the National Wildlife Federation. Said Murdock, "I am excited to help build SRI and to contribute toward SRI's critical efforts in shark conservation." She holds a degree in Humanities from Yale University, and is currently Executive Director of the Golden Gate Audubon Society in Berkeley, California.



Expedition Announcement

Dean Fessler will be leading an expedition to South Africa 17-26 August 2004 to document white shark behavior and record their aerial displays. The expedition team will meet with Dr. Leonard Compagno, Director of SRI, and work with local researchers. The expedition is land-based and daily observations of the sharks will be made from the boat (a cage is also available for underwater observations). Divers and non-divers may apply for spaces on this expedition. The cost per participant is \$3495 and only a limited number people will be selected for the team. Post-expedition safaris to game parks or Mozambique can also be arranged.