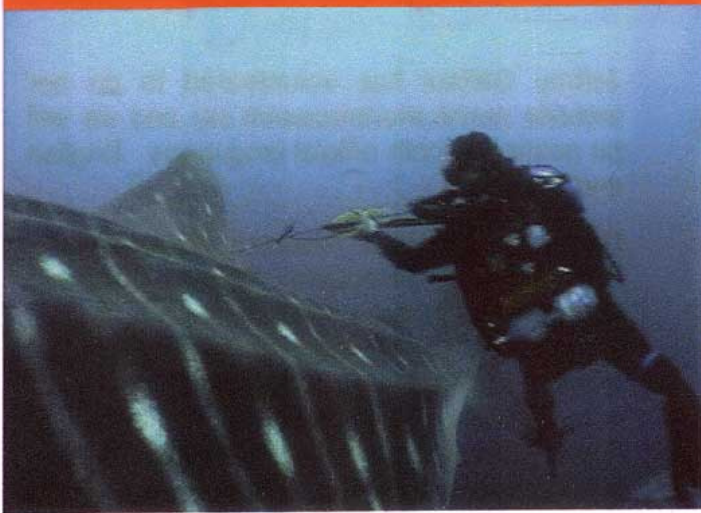


Shark Research Institute Newsletter



**Shark Research Institute Global Headquarters
P.O. Box 40, Princeton, New Jersey 08540, USA**

Galapagos Shark Survey



July 21 to 31, 2001, SRI and C2 Educational Expeditions (C2EE), working with the Galapagos National Park Service, began a survey of the more than 42 shark species in the marine park.

Dr. Alex Antoniou, Field Director of SRI, and Clifford Simoneau, CEO of C2EE, met with Eliecer Cruz, Director of the Galapagos National Parks, and Pablo Guerra, Director of Marine Resources. The team planned to deploy two archival pop-up satellite tags and insert visual ID tags in as many whale sharks as possible, and tissue samples were retrieved from two whale sharks for SRI's DNA study.

The Ecuadorian Navy also invited Antoniou and Simoneau to video the catch of two recently seized fishing boats being held at the island of



Baltra: a Colombian longliner and a Costa Rican vessel. The holds of both vessels contained hundreds of fin sets taken from scalloped hammerhead, silky, oceanic whitetip, Galapagos, blacktip and whitetip reef sharks.

SRI and C2EE will return to the Galapagos October 17-26. The research team includes Dr. Antoniou and Mr. Simoneau, marine biologists from the Darwin Research Center, and underwater digital video specialists Alex Ranch and Jonathan Brooks. SRI and C2EE have plans for several research expeditions during 2002. Interested divers should contact Dr. Antoniou at antoniou@rci.rutgers.edu.

Marine Research Center

The Shark Research Institute and The Philippe Cousteau Foundation are planning to jointly build and operate a marine research center on Utila, Bay Islands, Honduras. Jacamoe Properties has donated land for the facility and established two ecological reserves that will be managed by the center.



The facility will serve as a work platform for marine scientists and students, as well as a resource center for local government and educators. The center will house two laboratories, staff accommodations, offices and a conference room.

Jacamoe Properties, Utila Lodge and SRI member Ann Koepf have generously provided funds to start construction. An additional \$150,000 is needed to complete and equip the center.

Global Shark Attack File

CNN has dubbed this "The Summer of the Shark". To date, 36 incidents have occurred in US waters. Most took place in Florida, particularly in Volusia county. While only minor injuries resulted in some cases, others were far more serious and kept GSAF investigators on the road.

FLORIDA

On July 8th, Jesse Arbogast (8) lost his arm to a bull shark at Florida's Gull Island National Seashore. His uncle dragged the shark ashore, the boy's arm was retrieved from the shark, and surgically reattached. The attack occurred at dusk in an area where sharks were being fished. A week later surfer Michael Waters (48) was bitten close to a pier where fishermen were chumming for sharks.



VIRGINIA & NORTH CAROLINA

On September 1st (Labor Day weekend) David Peltier (10) was bitten by a bull shark at Virginia Beach, VA and died the next day. A GSAF investigator subsequently recovered discarded shark fishing tackle less than 500' from the attack site.

On September 3rd, just 135 miles to the south, Sergi Zaloukaev (28) and Natasha Slobodskaya (23) were attacked by a shark. Sergi died of his injuries and Natasha's foot was severed by the shark. Natasha is a Ph.D. student with no summer health insurance coverage. Friends of the couple have set up a fund to assist with her medical costs. For more information or to make a contribution, visit: <http://memorial.maxf.net>.

Whenever possible, GSAF conducts an on-site investigation of each attack. Witnesses, medical personnel and the victim are interviewed. Forensic data are studied by a team that includes a marine biologist, shark behaviorist, orthopedic surgeon, medical examiner, forensic odontologist, divers and fishermen. This multidisciplinary approach has provided insights into the causes of attacks, but more field investigators are needed.

To meet this need, GSAF is planning a shark attack investigation symposium in Spring 2002. Some of the topics include bite pattern analysis, species identification, site investigation and data recording. Contact SRI Headquarters for registration information

SRI NOTES

From SRI Seychelles

Rachel Graham has been here for the last four weeks and we have started the new tagging regime. A number of sharks have been tagged with placard tags and two archival pop-off satellite tags have been deployed. We have a third to put in this week and a Spot2 position-only satellite tag to deploy as well. Acoustic tagging has not yet been attempted because of sea and logistic considerations...*David & Glynis Rowat*

From SRI Canada

Jeffrey Gallant has volunteered to do our website (www.sharkresearch.ca) and we will be posting in both official languages: English and French.

Directors (and their research interests) are: Rick Martin, Vancouver, British Columbia (Population structure of shallow-water 6-gills, white shark social and predatory behaviour, bioluminescence and squamation in deep-sea sharks, molecular systematics of Carcharhinids); Anne Martin (Assisting Rick, research photography); Chris Harvey-Clark, Dalhousie University, Nova Scotia (Functional morphology of Atlantic torpedo rays, blue sharks, porbeagles; documentary film-maker); Jeffrey Gallant, Aqualog Society, Quebec, (Blue sharks, Greenland sharks); Ben Speers-Roesch, University of Guelph, Ontario (Predatory behaviour of white sharks, biology of deep-sea sharks, cryptozoology); Jay Treberg, Memorial University, Newfoundland (Physiological adaptations of deep-sea sharks, physiology of endothermic sharks)...*Anne Martin*

From SRI South Africa

We are developing a new type of satellite tag for use on whale sharks and hope to deploy a prototype next season. We've also documented the work of SRI off East Africa from 1993 to the present in book format, and are seeking a publisher... *Andrew Gifford*.

CONSERVATION NEWS

India: In our last newsletter we reported that the Indian Government placed whale sharks on Schedule 1 of their Wildlife Protection Act. A short time later, the protection was expanded to include all shark species! SRI President Stan Waterman and Alex Antoniou have provided film footage to Indian conservation organizations that will be used in television commercials promoting shark eco-tourism.

Philippines: Whale sharks are still being hunted in the Philippines, despite government protection. Oceans Illustrated contains an article titled, "The Whale Shark and the Ocean Wolf" by Jurgen Freund. It is a brutal and graphic account of the hunt. If the magazine is not available locally, you can subscribe or obtain a copy at: <http://www.oceansillustrated.com/secondissue.html>.

Marshall Islands: Fisheries officials have signed a one-year agreement with a Hong Kong company to begin the first-ever large scale longline shark fishing operation in this north Pacific nation's 200 mile EEZ.

New white shark study has Conservation Implications

A new study, indicating male white sharks roam Earth's oceans much more widely than females, has implications for future conservation strategies for the threatened fish. Differences in two types of DNA

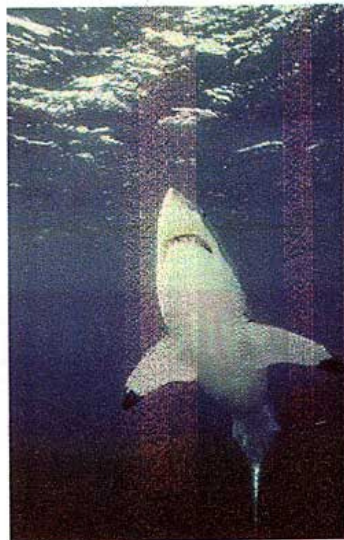


collected from tissue samples of 95 male and female white sharks were studied. It was concluded that while males

disperse widely across ocean basins, females tend to stay in a particular region, perhaps returning to their birth site to reproduce.

The researchers looked at both mitochondrial DNA – which is passed down

only by the female of the species – and particular genes from the cell nucleus passed on by both parents. The mitochondrial results indicated the "female-mediated" gene flow of white sharks between different ocean basins is rare and exhibits significant differences. The second gene assessment, from the cell nuclei of both sexes, showed little differences between shark populations from the Australia-New Zealand region and the South African region, indicating males ranged much more widely than previously believed.



"Many of us thought both male and female sharks were moving all over the place," said Dr. Andrew Martin, "but the mitochondrial DNA results indicate there was a significant divergence – probably two to three million years ago – between the sharks from Australia and New Zealand and those from South Africa."

Although population estimates are difficult to make, white shark catches in California declined from more than 60,000 pounds in 1984 to less than 1,200 pounds in 1991. "Management practices need to take into account the importance of breeding grounds and the connections of widely separated populations," Martin said. "A globally integrated plan of regional management would be the ideal situation." University of Colorado at Boulder (<http://www.colorado.edu>)

SRI receives continued Support

SRI thanks the following sponsors for their continued support:

- Draeger DiveAmerica
- Goddard School
- JBL Enterprises Inc.
- PADI Foundation
- Pelican Products
- Project AWARE Foundation
- Microwave Telemetry, Inc.
- C2 Educational Expeditions



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WildAid Campaign in Thailand a Success!

BANGKOK: Shark fin soup restaurants in Bangkok's Chinatown filed a 103 million baht (HK\$17.51 million) lawsuit against conservation group WildAid over its high-profile campaign against the costly dish.

The group of 15 restaurateurs said their trade had declined 50% since the activists launched an advertising campaign two months ago claiming that shark fins contain mercury.

"The campaign has not only spoiled our decades-old reputation but also our sales," said Chinatown Food Producers Group chairman Adul Laohapol, adding that sales of canned shark fin soup had also fallen. "The plaintiff has been damaged because overseas supermarkets returned products, fearing the shark fin was laced with mercury," court papers said.

Laohapol said the suit also targeted advertising agency J. Walter Thompson, which devised the shock advertisements that included pictures of a bowl of soup with human ears floating on the surface.

WildAid argued that the trade in shark fins damaged Thailand's valuable tourism industry by wiping out the species of sharks that scuba divers come from all around the world to see. It also said that the way the fins are harvested - by slicing the cartilage off the body and dumping the animal in the sea to die - is cruel, and that the dish has no health benefits, as its proponents claim.

Florida to ban shark dives

On Friday, September 7th, the Florida Fish and Wildlife Conservation Commission voted to draft regulations banning shark feeding by dive operators. No participant has ever been injured in a Florida shark dive, nurse sharks are the only species fed by hand, and the dives take place well offshore. Prohibition of fishing (chumming) for sharks in the vicinity of surfing and swimming beaches will do far more to reduce shark attacks in Florida than closing down the four shark dive operators. The Commission will have a public hearing and vote on the proposed rule at its October 31st–November 2nd meeting in Key Largo.

Latest Tagging Report

On July 27, a 20-foot male whale shark (#0545P) was tagged off the coast of Utila during an SRI research trip that included 14 sport divers, most of whom were from Texas. Sandra Mihalenko documented the encounter and Tom Clarke tagged the shark, named Tex for the divers assisting with the project. Throughout the week, the divers swam with six whale sharks, silky sharks and dolphins.



There are still a few spaces left on the December 22-29 trip to Utila, the last of the season. For more information contact antoniou@rci.rutgers.edu