

Shark Research Institute Newsletter



Shark Research Institute Global Headquarters

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The Momentum Builds as Honduras Creates a Shark Sanctuary!

President Porfirio Lobo Sosa of Honduras has taken a huge step in protecting sharks by creation of a 92,665 square mile shark sanctuary in Honduran waters. Recognizing that sharks are a valuable asset not only to the country's coral reef ecosystems, but also to tourism, President Lobo Sosa signed the legislation on July 1, 2011.

More and more countries are recognizing that sharks are valuable natural resources, not only because they play a critical role in maintaining a healthy reef ecosystems, but also because they are living assets to their national economies. Sharks are far more valuable alive than dead.



President Porfirio "Pepe" Lobo Sosa

On September 25, 2009, President Toribiong of Palau announced creation of the world's first shark sanctuary, banning all commercial fishing for sharks in the 230,000 square miles of Palau's entire Exclusive Economic Zone (EEZ), called for a global ban on shark finning at the United Nations, and asked that other nations "follow suit." On September 23, 2010, President Lobo Sosa announced that Honduras would be doing the same, making permanent a 2010 moratorium on commercial fishing for sharks in both the Pacific and Caribbean coasts of Honduras.

The momentum is building worldwide. On March 9, 2010, The Maldives declared their 34,749 square mile EEZ a shark sanctuary, banning shark fishing and all imports and exports of shark fins. In November 2010, Indonesia set aside 17,760 square miles surrounding the island of Raja Ampat as a shark sanctuary. As of April 27, 2010, it became illegal to possess, sell, trade or distribute shark fins in the Commonwealth of the Northern Marianas where Public Law 17-27 imposes a fine of at least \$5,000 but not more than \$30,000 and/or imprisonment for up to six months for those found in violation of the shark fin ban. In the USA, Hawaii, Washington and Oregon have already passed bills prohibiting the sale and trade in shark fins, and California is considering similar legislation. On February 24, 2011, Guam made it a felony to see, trade or distribute shark fins, and the US territory of the Marshall Islands has placed a moratorium on the trade and export of shark fins. In the Bahamas, where shark tourism generates an estimated \$78 million to the national economy (the value of each shark is about \$25,000 in tourism and shark-related activities), legislation protecting sharks is under review.

"We have seen that protecting sharks helps our environment and our people," said Honduran Vice President María Antonieta Guillén de Bogran, who attended signing of the sanctuary bill. "When tourists come to Roatan and other destinations, they spend money to see the sharks. But these animals don't just help the Honduran economy. Our coral reefs and marine environment thrive because these apex predators are safe in our waters. Today's declaration will help us all, underwater and on land, for generations to come."

...continued on next page

Creating a shark sanctuary was "an opportunity to contribute to the conservation of the species and protect our national patrimony," the Vice President told The New York Times. "We're a small country, but we can set an example."

Honduras has been a leader in shark conservation for more than a decade. In 1999, Honduras became the first nation to protect whale sharks. When SRI quantified the value of whale shark tourism to the Honduran government, they immediately legislated protection for the giant sharks.

Honduras is home to whale sharks and many other species of sharks. About one third of all shark species are threatened with extinction, primarily due to overfishing for their fins. Honduras banned all shark fishing last year, and hopefully their new legislation will spur other countries in recognizing that sharks are national assets to be protected.

Shark populations around the world have been decimated by overfishing and bycatch. Some shark populations have fallen by over 90% in the past few decades, mostly due to the demand for sharkfin soup. An Asian delicacy, shark-fin soup is exactly what its name suggests. To meet demand, sharks are caught, their fins hacked off, and often the animals — still alive — are tossed back into the water. An estimated 38 million sharks are slaughtered each year for their fins alone.



AB 376 Update

The California State Assembly approved AB 376 which bans the sale, trade or possession of shark fins. The bill's author, Assemblyman Paul Fong, D-Cupertino, and its supporters say the sharks are put at risk of extinction which will wreak havoc in marine ecosystems. Assemblyman Jared Huffman, D-Marin, who co-authored the bill, said shark populations have been on the decline for two decades. "The science is unambiguous: Sharks are in trouble," he said. The bill was amended to give businesses an extra year to comply. The legislation, which would take effect Jan. 1, 2013, is in Committee after which it will go to the Senate for consideration.

In the Senate, the most vocal opposition has been from Senator Leland Yee. Every Tuesday, SRI sends your No Finning slips and letters to the Senator. Letters of support for passage of the bill are urgently needed. In the past, letters have proven to be more effective than emails or petitions. If you wish to write to Senator Yee directly, his address is: Senator Leland Yee, Ph.D., State Capitol, Room 4074, Sacramento, CA 95814

Right now, we have a chance to make a huge difference for sharks. We all know the havoc that finning is causing. California has succeeded in getting bill AB 376 through the state assembly. We are halfway to getting this bill passed into law. It is now sitting in senate appropriations. The opposition has hired two established lobbying firms to defeat the bill.

Passage of the bill would help in two ways, possession of fins would not be legal in California, so it would shut down local sales. Also, since California is the accumulation center for fins before they are shipped to China and other Asian destinations, this bill would make it much more expensive and therefore less appealing to deal in shark fins. The entire global shark finning industry would suffer because California is the linchpin in the entire infrastructure inside and outside of the United States.

To keep you informed about what you can do to help pass this pivotal bill SRI and Sea Save have posted a series of videos on youtube. Go first to 'Call to Action - Let's stop the sale of shark fins in California. NOW!' at www.youtube.com/watch?v=l00V-g7-nQ8. Then click on the two videos at right for specific information on how to contact key legislators in California.

Thank You to Our Supporters!

We are very grateful for the continued support of:

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- The WAVE Foundation
- Kathrin Winkler & Angus Campbell
- World Wildlife Fund
- Josip Zeko

A Major Donation that Costs You Nothing

If you are thinking of buying or selling a home, you can make a big donation to the Shark Research Institute — and it won't cost you a dime.



It is possible through our new partnership with My Broker Donates which matches our supporters with caring, qualified real-estate brokers who have agreed to donate 15% of their fee to the Shark Research Institute.

The potential donations are impressive: a \$500,000 home would generate a donation of more than \$2,000. That's money we can use to save sharks from destructive fishing practices and to educate people about these magnificent animals.

Please visit www.mybrokerdonates.com to learn more.

Two other ways to support SRI

We've teamed up with Amazon and created a wish list for some much needed supplies. This is a fast and convenient way to show your support. <http://amzn.com/w/3C3HR4MDX1HYH> to select any products you are able to donate and they will be shipped straight to SRI.

We are also looking for weird and wonderful items for our fall auction. Items can be sent to 70 Heather Lane, Princeton, NJ 08540. Donors will be given a tax receipt for the retail value of their donation. Thank you to all our members who have already donated materials. *We greatly appreciate your generosity!*

SRI California

We now have an office in California! The address of our California Annex is:

Shark Research Institute
23852 PCH, Unit 110
Malibu, CA 90265

Shark Populations off Malaysia Down Close to 100 Percent

Scientists in Malaysia estimate that the 98 percent decrease in shark populations off the coast of Borneo is likely the result of prolonged, government-permitted shark fishing.

"Unfortunately, due to the increase in demand, the shark populations cannot support the fishery any longer," said Professor Steve Oakley, Technical Advisor of The Green Connection (Aquarium and Science Discovery Centre). "Most shark species have a relatively small range. Hammerhead sharks around Sipadan are being caught when they move away to feed at night."

These statements resulted from opposition to the current "Say No To Shark Fin Soup" Program. The issue is as much about enforcing shark finning bans as it is the dangerous levels of bioaccumulated mercury in some shark meat. Oakley looks to examples of the Bahamas – a country whose 20-year-long ban on shark finning has helped maintain healthy populations. Recently adopted protective legislation is the wave of the future in fishing regulation.

... Joseph Tepper, *Daily Express News*

White Sharks in Danger

The world's first detailed count of white sharks has the species in more danger than previously realized. The count, which focused on white sharks off Central California, determined that only 219 adults and juveniles exist in waters there, according to a new Royal Society Biology Letters paper. Since the region is thought to support one of the largest populations of this species, the future of white sharks elsewhere appears bleak.



The study was conducted from 2006 to 2008 at two known white shark aggregation sites: Tomales Point and the Farallon Islands. Shark numbers were estimated based on the images of their dorsal fins, and the researchers used additional information from a database, along with math models, to come up with the 219 figure.

Although no one knows precisely how many white sharks existed in the region years ago, population counts for other top marine predators such as orcas are considerably higher. "If we assume white sharks and orcas fill a similar niche (i.e., prey base) and compare their metabolic rates (a physiological measure that is

sometimes correlated with population size), we would predict that abundance levels of white sharks should be at least similar to orcas, if not greater," said Taylor Chapple, a University of California at Davis researcher.

"Part of the challenge here is using traditional marine mammal survey methods on a non-air breathing species," said Chris Lowe of California State University at Long Beach. "Obviously it is easier to count orcas than it is sharks, because there is a much higher chance of seeing them on the surface."

Virtually all experts agree that white sharks are in need of additional protection. Shark finning, bycatch due to fishing, habitat loss, pollution and other problems continue to threaten white sharks and other shark species.

\$\$\$ *Two Million Dollar Sharks* \$\$\$

A single reef shark can be worth nearly \$2 million in tourism revenue over its lifetime according to a study by researchers in Australia. Shark tourism accounts for about 80 percent of Palau's and 14 percent of its business tax base. It also generates more than a million dollars annually in salaries.

The analysis from the Pacific island nation of Palau shows that sharks — hunted worldwide for their fins — are far more valuable alive to some local economies, than they are when dead. "Sharks can literally be a 'million-dollar' species and a significant economic driver," said the Australian Institute of Marine Science. "Our study shows that these animals can contribute far more as a tourism resource than as a catch target."

The researchers determined that the annual value to Palau' tourist industry of an individual reef shark at one of the country's major scuba-diving sites is \$179,000 (121,000 euros) a year, or about \$1.9 million (1.3 million euros) over the animal's lifetime, while a dead shark killed for food has a one-time value of \$108. Alive, a shark is worth 17,000 times more than dead, plus its immense value to the ocean ecosystem.

"This study provides a compelling case that can convince more countries to embrace these animals for their benefit to the ocean and their value to a country's financial well-being," said Matt Rand of the Pew Environment Group. According to the International Union for the Conservation of Nature (IUCN) about a third of all pelagic species of sharks now face extinction. Regional studies have shown that when shark populations crash the impact cascades down through the food chain, often in unpredictable and deleterious ways.

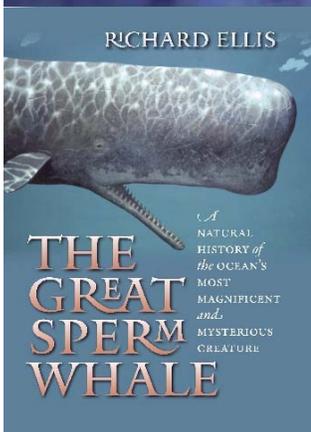
Costa Rica Creates Marine Reserve

In March, the Costa Rican government announced creation of a huge marine protected area surrounding Cocos Island. The new Seamounts Marine Management Area (SMMA) encompasses an area larger than Yellowstone National Park in the USA. Cocos Island, a tiny Pacific island more than 300 miles off the western shore of Costa Rica is home to 30 forms of marine life found only in the waters off Costa Rica, including one of the largest concentrations of large sharks found anywhere in the world.

"The protected area covers close to a million hectares (a hectare is about two and a half acres), and dramatically expands the boundaries of an existing protected area in the waters of Cocos Island National Park. The SMMA gets its name from a cluster of underwater mountains (seamounts) located within its boundaries. Seamounts are among the least-explored but most vulnerable ecosystems in the oceans, making protection of the ones near Cocos Island particularly important. "Seamounts host endemic species, and the deep water that upwells along their sides brings nutrients that support rich feeding grounds for sea life on the surface, and serve as stepping stones for long-distance migratory species, including sharks, turtles, whales and tuna," said Marco Quesade of Conservation International.

In addition to preserving important seamounts, the new protected area also excludes ocean trawl fisheries within its boundaries. Unfortunately, long-line fishing will still be allowed in parts of the protected area — a decision that has already drawn sharp criticism from environmentalists. SRI and other conservation groups maintain that all types of fishing should be prohibited if it is to be a fully protected sanctuary. But even with the continuation of long-lining, the SMAA is a giant step forward in protecting marine species such as whale sharks, hammerheads, whitetip reef sharks and leatherback turtles, and may serve as a guide to other countries looking to protect their own marine resources.

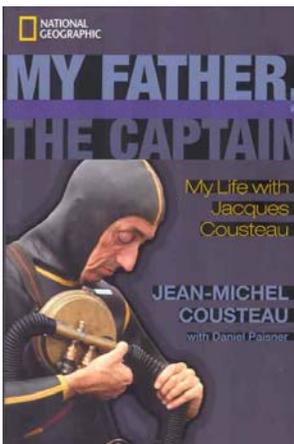
Member's Bookshelf



The Great Sperm Whale: A Natural History of the Ocean's Most Magnificent and Mysterious Creature, by *Richard Ellis*. Univ. of Kansas. 432pp. \$34.95.

Anyone familiar with Ellis's work knows his fascination with *Physeter macrocephalus*, the sperm whale. These creatures were included in his previous volumes, *The Book of Whales* and *Men and Whales*, but here take center stage. Not a rehash of that info, Ellis pulls together all those disparate discussions and adds substantial new material. Homage is paid to Herman Melville, the great author and his masterpiece, *Moby-Dick*, throughout this volume. This book approaches these cetaceans from a number of facets; their history (as well as we know it) and legend, biology, social lives, human interaction (they're friendly), adversarial relationship with and taste for squid (best chapter title: "I'll Have the Calamari"), the whaling industry, and efforts to protect them. Buttressing the text, which though incorporating science lingo is still accessible to lay readers, are 122 photos and illustrations, many of

which are Ellis's original artworks. At once a richly detailed, informative, scientific exploration as well as a love sonnet to the ocean's greatest leviathan, this will appeal to fans of nautical history, nature, Melville, and armchair cetologists. A superb addition to Ellis's canon." ...*Mike Rogers, Library Journal*

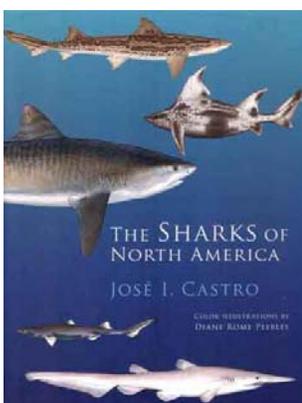


My Father, The Captain, My Life with Jacques Cousteau, by *Jean-Michel Cousteau*. National Geographic. 155 pp. \$26.00

"This is the best sea story ever; the saga of being the first son of the legendary ocean explorer, Jacques Cousteau — a boy thrust into history-making adventures in the unknown depths of the sea and, while discovering the nature of the world, finding the human side of his father, deep respect for his mother, and a place in the world for himself."...*Sylvia Earle*

National Geographic Kids Everything Sharks: All the shark facts, photos, and fun that you can sink your teeth into, by *Ruth A. Musgrave, David Doubilet and Jennifer Hayes*, National Geographic. \$12.95, available through Amazon.com

WOW! National Geographic has produced another winner! This is a superb book for 9-12 year olds and perfect for getting those 30 minutes of reading in per day. With a wealth of fascinating facts about sharks and spectacular photographs, the book is perfect for all young shark-lovers. The book is also very useful in teaching students how to read graphs, diagrams, and maps. And, for those looking for resources, there's enough info here to really help out with a research paper on sharks. *Highly recommended!*



The Sharks of North America by *Jose Castro*, Illustrations by *Diane Rome Peebles*, Oxford University Press. 640 pp. \$99.00, available through Amazon.com.

This reference guide describes 135 species of sharks found in North American waters and summarizes the present knowledge. Included are identifying characteristics, range, reproduction, nursery areas, growth, lifespan and relation to humans. In addition to the comprehensive text, the drawings of each species, its snout, and teeth are exquisite. The color illustrations are anatomically accurate and the colors are true-to-life. This book will serve as the standard reference on sharks for the twenty-first century and is certain to become a primary source of information for anyone interested in sharks

Field Expeditions

Sport divers who participate in SRI expeditions are of great help to our field researchers, and part of their cost is deductible from US federal income taxes. At present, only one field expedition has spaces available:

WHALE SHARKS

Cancun, Mexico: July 23 to July 30, 2011. Dr. Jennifer V. Schmidt, the project leader, will be taking divers to the Afuera Whale Shark Aggregation. (See our last newsletter.) Cost is \$1,200 per person. Call SRI HQ at 609.921.3522 to reserve a space.

Whale sharks are protected in the Seychelles where their numbers appear to be increasing. For more information on how to join David Rowat and his team studying these magnificent sharks in the Seychelles or Djibouti, go to:

http://www.diveseychelles.com.sc/spops_a.htm



Photo by Oscar Reyes

SOUTH AFRICAN SARDINE RUN

If you would prefer a dive trip instead, three of our members are offering trips this year, including dives in South Africa's sardine run, one of the ocean's great spectacles:

Debbie Smith is taking divers to the June-July sardine run, and other areas in South Africa. For information and bookings, go to:

<http://www.divingwithsharks.co.za/bookings.html>

Lesley Rochat is offering 3 trips for groups of 10 divers per trip and photo courses: One trip to the sardine run and two shark diving trips. For more information or to book a space, go to:

<http://www.lesleyrochat.com/sardine-run-2011/>

And **Suzy Quasnichka**, SRI-UK, owns AfricaDiver, a travel agency based in the UK that specializes in shark diving.

<http://africadiver.co.uk>



Photo by Lesley Rochat

A Clearinghouse of Resources on Bycatch Mitigation



Consortium
for Wildlife
Bycatch
Reduction

The Consortium for Wildlife Bycatch Reduction has launched a new, expanded website: www.bycatch.org The Consortium for Wildlife Bycatch Reduction is a science-industry partnership that consists of the New England Aquarium, Blue Water Fishermen's Association, Duke University, Maine Lobstermen's Association, and University of New Hampshire. The Consortium supports collaborative research

between scientists and the fishing industry to identify practical bycatch reduction solutions for threatened or endangered species.

The website features:

- A searchable database of references and summaries from bycatch reduction studies
- Search by a species of interest, fishing gear, or mitigation technique and view related studies and their effectiveness for reducing bycatch and maintaining target catch
- Bycatch research and resources
- Bycatch related news and events

JAWS was a FABRICATION!

Photographer, explorer and SRI Advisory Board Member Amos Nachoum dispelled the misconception of “killer species” in a photographic exploration presented at TEDxConejo2011. He showed how some in the media deliberately altered his photograph of a white shark to create hype and misinformation about the species.

Amos has captured images of just about everything there is to shoot in the sea, and he has become world famous. He has also led National Geographic expedition teams with Dr.

Eugenie Clark, Dr. Sylvia Earle, and astronaut Buzz Aldrin and was the team leader for a number of National Geographic's photo expeditions.

Amos's photos and essays have appeared in hundreds of publications around the globe, including National Geographic, Time, Life, The New York Times, Condé Nast Traveler, Le Figaro, Terra Sauvage, Airone, Mondo Somerso, Der Spiegel, Unterwasser, and many more. His work has also been included in the books *The Living Ocean*, *The World of Nature*, and *Oceans*. He has been profiled in television appearances on National Geographic Explorer, Today, and Good Morning America, as well as featured in People, Esquire, and Money magazines. His photography has won Nikon, Communication Arts, and BBC Wildlife Photographer of the Year awards. His clients include Apple, IBM, Microsoft, Discovery Channel, Armani, Disney, and Columbia Pictures.

Amos' commitment to wildlife led him to co-found Israel's Marine National Park on the Red Sea. Amos works tirelessly to bring attention to some of the most fragile regions of the underwater realm, with preservation of the environment foremost in every encounter. He works tirelessly to bring attention to some of the most fragile regions of the underwater realm, with preservation of the environment foremost in every encounter.



Based in San Francisco, California, Amos operates the cutting-edge adventure-travel programs: www.biganimals.com. Amos takes his guests all over the world to observe, photograph, and revere the most magnificent creatures on the planet.

Amos' presentation can be viewed on our website — <http://www.sharks.org> — or on youtube: <http://www.youtube.com/watch?v=sy72DGDb45E>

Mark Your Calendars

July 9, 2011: One Message: “I am the future, I don’t eat shark fins.” 1,000 children (ages 7 to 15) in Hong Kong — the epicentre of the shark fin trade — will be taking a pledge not to eat shark fin soup. This is a definitive campaign to empower children and inspire the citizens of Hong Kong and communities around the world to end the consumption of shark fin soup. The event is being organized by Michael Aw of Ocean Geographic, and sponsored by Rolex, Ocean Geographic, Shark Research Institute and the Hong Kong Shark Foundation. Honorary President, Sylvia Earle, and Board members David Doubilet and Jennifer Hayes, will attend as our representatives. ***If you live in Hong Kong, please encourage your children and their friends to register for the events at www.1000kidsonemessage.org***

July 16, 2011: 4th Annual City of Water Day at Governor’s Island (NY) and Liberty State Park (NJ)
This free event, produced by the Metropolitan Waterfront Alliance, celebrates the potential of our waterfront. Hundreds of organizations participate, offering fee boat rides, games, films performances, readings, crafts and much more — and thousands of people join in. See www.waterfrontalliance.org for more information and to register for special events. SRI is participating, and volunteers are needed at our tables to talk to visitors during the event. If you are able to help, please contact SRI HQ at 609.921.3522.

July 25-27, 2011: First International Symposium on Sharks in West Africa, Dakar, Senegal
The theme is Conservation and sustainable management of Sharks in West Africa: Achievements and Prospects. Contact SRI for more details if you’d like to attend.

July 31, 2011: Discovery Channel’s Shark Week

August 1, 2011: SRI’s ANNUAL SHARK CELEBRITY AUCTION! You’ve read their books and watched them on Discovery Channel and Animal Planet. Now meet them in person! This is a unique opportunity to bid on lunch or dinner with your favorite shark expert or celebrity, get to know them personally, and “talk shark”. This year even more celebrities are participating including such legends as *Dr. Eugenie Clark, Valerie Taylor, Jeremiah Sullivan, Donald Schultz, Stuart Cove*, and many other shark experts and celebrities. The auction catalog will be posted on our website with a link into the auction 24 hours before the start of the auction. Proceeds of the auctions help fund our conservation and educational programs, and winning bidders will receive tax receipts.

August 8, 2011: The Camden Riversharks Club, a professional baseball team based in Camden, NJ, is celebrating their namesakes. The Riversharks are donating a percentage of tickets sales to SRI to support our research and conservation. This is also a great way to spend a summer day and support our local South Jersey baseball team.

August 12-14, 2011: The State of the Oceans Eco Summit in San Jose, Costa Rica. SRI President Jupp Kerckerinck will be the keynote speaker. See: www.stateoftheoceans.com

October, 28-30, 2011: The European Elasmobranch Association’s 15th Annual Scientific Conference. The meeting, hosted by the German Elasmobranch Society and the Natural History Museum of Berlin, will take place in Berlin, Germany. Deadline for abstract submission is August 31, and the deadline for registration is September 30. Invited are contributions on all aspects of chondrichthyan research; a special focus will be given on shark fisheries and conservation. Further details on the programme, abstract submission, registration, social events, and EEA student travel awards are on-line on the EEA website at: www.eulasmoo.org

May 11, 2012: Fintastic Friday 2012: Giving Sharks a Voice WhaleTimes and SRI have teamed up to raise awareness of the plight of sharks through a new holiday: Fintastic Friday is celebrated annually on the second Friday in May.

White Sharks visiting Cape Cod



This six- to seven-foot immature white shark, weighing about 150 pounds, was tagged and released near Cape Cod in Massachusetts. Sharks come to the area to prey on seals.

favorable weather boosted revenue by about 20 percent for Beachcomber Boat Tours, which ferries tourists to where the seals at Monomoy Island, said Paula St Pierre, owner.

The seal population at Monomoy Island swelled after they were protected by the federal Marine Mammal Protection Act in 1972. Fishermen tend not to like the seals, according to Greg Skomal of the Massachusetts Division of Marine Fisheries. They blame the seals for eating their catch and driving away other fish, Skomal said.

During the past two summers Skomal and his team tagged 13 great white sharks and confirmed the sighting of at least four others. "The seal population has reached some critical level and the likelihood of seeing a white shark now has increased," Skomal said.

White sharks are once again summering off Chatham, Massachusetts. Last year summer the sightings brought about 5,000 day-trippers into town during July and August as busloads of visitors to Cape Cod detoured to see the sharks. Visits by the sharks generated profits for local shops and restaurants. The event also caused traffic jams in the normally quiet community. This year, with film crews recording the action, the town is bracing for more visitors. Chatham's population is 6,579 most of the year, swelling to about 25,000 in July and August, according to the town website. The sharks have certainly put Chatham in the limelight said Lisa Franz, executive director of the Chatham Chamber of Commerce. The shark buzz and

...and Basking Sharks are swimming off Scotland



© Dan Burton

Basking sharks have returned to the west coast of Scotland. A group of 20 were sighted June 11 at Hyskeir near Canna, and 20 were recorded on July 1 between Clabbach and Gallanaach by Simon Wellock for the Hebridean Whale and Dolphin Trust. Between the islands Coll and Tiree in Gunna Sound, four times as many basking sharks have been recorded per hour of survey than anywhere else in the UK. Frequent displays of courtship-like behavior, including breaching in which the shark leaps clear of the water, suggests that both areas are important for sharks seeking a mate. The west coast is one of the best places to see basking sharks, according to a report published by Scottish Natural Heritage (SNH).

The basking shark (*Cetorhinus maximus*) is the world's second largest fish and may grow to a length of 33 feet. The sharks once hunted for their oil and meat in Scotland, had almost disappeared from UK waters by the turn of the 20th century. They came back in vast numbers in the 1930s. By 1937, basking sharks had become so common that the Scottish Office even ordered the deliberate ramming of the sharks to control their numbers, but by 2002, the population numbers had fallen so low that the species was placed on Appendix II of the Convention on International Trade in Endangered Species.

Sharks are cruelly harvested for their fins; they are wrangled out of the sea, de-finned and thrown back into the sea while still alive, to die. This is like chopping off the legs of cows and dumping them in the field to endure a slow and painful death. Therefore, with such a wicked practice, there is nothing but bad karma when shark fin soup is served at auspicious occasions. It is, in fact, a symbol of ignorance, cruelty and the senseless killing of majestic animals.

Chinese communities believe that shark fins have mystical powers and superlative gastronomic and aphrodisiac qualities. In truth there is no evidence of their gastronomical, mystical or health benefits. On the contrary, fins are not even food; they are the equivalent to finger nails and hair, but with a high concentration of mercury which is scientifically proven to cause ill health (along with birth defects). The cruel culling of sharks for shark fin soup is fast depleting the shark population in the wild. Yet those in the shark fin trade, over decades, have so successfully embedded the untruths as powerful beliefs in the Chinese mind, that even the poor at times scrape the barrel to feast on this soup of lies and fallacies.

We appeal to hosts of birthdays, weddings, corporate, family dinners — refrain from offering shark fin soup. If you are getting married soon, your enlightened choice to not serve shark fins will save the lives of 30 to 40 sharks while saving money for other more sensible and enjoyable luxuries. In the spiritual realm, your good deed is good karma for both wealth and good health.

Since 2007, Ocean Geographic has been offering wedding couples the 'Double Joy Luck' card and letter package to help with a polite explanation for not serving shark fin soup. To date 30,000 cards have been given out at over 300 weddings, equivalent to saving 1000 sharks.

The symbol of 'Double Happiness' is specially designed for you to be a part of a growing fraternity of concerned stewards protecting our planet. Spread the No Shark Fins message to family, friends and corporations who will be hosting dinners, and encourage them to contact us for the 'Double Joy Luck' card and letter package. There are far healthier and tastier alternatives. We need not be captives of ruthless and inconsiderate traders whose only goal is to empty our wallets. Email info@OGSociety.org for the Double Joy Luck card and letter package and join the growing fold of concerned global citizens.

The 'Double Joy Luck Package' is in constant need of funding to produce the cards; the program is supported by advertisers and Ocean Geographic SOS Funds. Make a donation to this program and you will be rewarded with a copy of the limited edition, "Heart of the Ocean" – Palm D'Or winner at the 2009 World Festival of Underwater Pictures.



What to do with a Dead Greenland Shark . . .

The Greenland shark *Somniosus microcephalus*, lives farther north than other species of sharks, and has long been the subject of study by Jeffrey Gallant of SRI-Canada and his team from GEERG. Greenland sharks are huge. They grow to a length of 21 ft, possibly 24 feet, may weigh 2,200 lbs, and are said to have a lifespan of 200 years.



The flesh of the shark is highly poisonous due to the high levels of uric acid and trimethylamine oxide the shark uses as effective antifreeze against the frigid seas of Canada, Norway and Iceland. Effects of eating the shark in its 'fresh' state range from the feeling of being very drunk to death. Reportedly, Arctic sled dogs, having accidentally eaten the meat, have been unable to stand due to its effect on their nervous systems. As result, the shark is rarely consumed except in Iceland and only way to make the shark edible is to process it, which is exactly what Hildibrandur Bjarnason does. He "ferments" it.



From his small (and isolated) farm in Bjarnarhöfn, Bjarnason produces *hákarl*, the Icelandic dish of fermented Greenland shark. The Greenland shark is not specifically hunted, according to Bjarnason, but often gets caught by fishing trawlers and when that happens, they call him. At his farm, the sharks are butchered and boxed up for up to six weeks, then removed and hung in a wooden building for six months before they can be eaten as *hákarl*.



Hákarl ready for the table

Hákarl, not surprisingly, is an acquired taste and is described as "having an ammonia-rich smell and fishy taste, similar to very strong cheese slathered in ammonia." While the fermented shark is touted as a health food for children in Reykjavik , how likely is it to

become popular? Wikipedia advises that "those new to it will usually gag involuntarily on the first attempt to eat it" and "first-timers are sometimes advised to pinch their nose while taking the first bite as the smell is much stronger than the taste." It is reported that chef Gordon Ramsay couldn't even keep it down, due to its repugnant stench. For the full article on Bjarnarhof and his operation, see the June-July 2011 issue of *Atlantica*, a publication of the Icelandic Review.

If fermented Greenland shark doesn't turn you off, this surely will. These neonatal pickled sharks were spotted in a Florida shop recently. Ray Richardson reports that he saw them in a few different souvenir shops in Panama City Beach, Florida and said "I know for sure "Sunsations" has them for \$14.99."

