

Newsletter



Shark Research Institute Global Headquarters

PO Box 40 • Princeton, NJ 08540 • USA • Phone: 609-921-3522 • Fax: 609-921-1505 • www.sharks.org

The First NATIONWIDE Ban on Shark Fishing and the Shark Fin Trade

On June 10, 2013 – World Oceans Day — His Majesty Sultan of Brunei Haji Hassanai Bolkiah Mu'izzaddin Waddaulah officially banned the catch and landing of all shark species from the waters of Brunei Darussalam.

The announcement was made at the 12th Annual Celebrate the Sea Festival by Guest of Honor Yang Berhormat Pehin Orang Kaya Seri Utama Dato Seri Setia Awang Haji Yahya bin Begawan Mudim Dato Paduka Haji Bakar, of the Ministry of Industry and Primary Resources. Also banned are the importation and sale of shark fins and products in the domestic market, including supplements and medicines of which sharks are an ingredient, and the government is officially enforcing the ban on the importation and trade of shark products which has been in place since August 2012.



*Sultan Haji Hassanai Bolkiah
Mu'izzaddin Waddaulah of
Brunei Darussalam*



*Minister YB Pehin Dato Hj Yahya &
SRI Board member & Director of
OceanNEnvironment Michael Aw*

“These measures are, probably, the world’s first commitment by any country,” said the minister. The rationales are “Firstly, our concern on food security and secondly, the environmental consideration.”

The minister noted that sharks are targeted for their fins only, their bodies discarded into the sea. He stated the ban would decrease the fishing pressure affecting the shark resources, especially in Brunei and in international waters, while more importantly, safeguarding the nation’s fishery resources for the future.

The ban supports the international bodies such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) at the recently concluded 16th Conference of Parties (16th COP) in Bangkok, Thailand. More shark species were listed under the International Union for Conservation of Nature (IUCN) as vulnerable, endangered and threatened.

Brunei Darussalam encourages other countries in the region to follow its lead by banning the sale and trade of all shark products.

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The Celebrate the Sea Festival, the biggest underwater imagery festival outside Europe, is a non-profit event funded and co-produced by OceanNEnvironment Australia and the Ministry of Industry and Primary Resources of Brunei Darussalam.



Status of Shark Fin Trade Bans

Jun-2013	Massachusetts, USA	Bill to ban shark fin trade introduced with exception for dogfish
Jun-2013	Brunei Darussalam	No shark fishing in territorial waters. Importation, sale and trade in shark fins and shark products banned
Pending	New York, USA	Shark fin trade bill passed the Assembly & awaiting Governor Cuomo's signature
May-2013	Texas, USA	Shark trade bill passed the House, but died in Senate
May-2013	Delaware, USA	Possession, sale and trade of shark fins prohibited.
May-2013	Maryland, USA	Possession, sale and trade of shark fins prohibited.
Dec-2012	Cook Islands	Possession and sale of shark products banned.
Nov-2012	American Samoa	Shark fishing banned in territorial waters, and the sale, possession, and distribution of fins and other shark products prohibited.
Oct-2012	Costa Rica	Import and trade in shark fins banned.
Jul-2012	Illinois, USA	Possession and sale of shark fins prohibited, effective January 1, 2013
Jul-2012	Bahamas	All shark fishing, sale and trade in shark products banned.
Oct-2011	California	Possession, sale and trade of shark fins prohibited.
Aug-2011	Oregon, USA	Possession, sale and trade of shark fins prohibited with exception for dogfish.
May-2011	Washington, USA	Possession, sale and trade of shark fins prohibited.
Mar-2011	Guam	Possession, sale and trade of shark fins and ray parts prohibited with an exception for subsistence fishing).
Mar-2011	Marshall Islands	Moratorium on the export of shark fins and the possession and sale of shark products.
Jan-2011	Commonwealth of the Northern Mariana Islands (CNMI)	Possession, sale and trade of shark fins and ray parts prohibited with an exception for subsistence fishing).
Jul-2010	Hawaii, USA	Possession, sale and trade of shark fins prohibited.

NOAA Weighs In On Shark Fin Trade Bans

The Shark Conservation Act (SCA) of 2010 is a federal law aimed at protecting sharks by prohibiting finning sharks at sea. Like many laws, its intent was good, but limited in scope because it addressed only part of the problem. Since 2010, 10 U.S. states and territories have passed even tougher legislation to protect declining shark populations. Hawaii, California, Washington, Oregon, Illinois, Delaware, Maryland, Guam, the Northern Mariana Islands and American Samoa have banned the trade of shark fins, while American Samoa, Guam and the Northern Mariana Islands also prohibited the catch and possession of sharks in their territorial waters. The legislation was adopted after extensive input from the public and reflect the desires of citizens in those states and territories.

Now, the federal government (National Oceanic and Atmospheric Administration NOAA and National Marine Fisheries) claims the laws of those state and territories may conflict with federal law because they interfere with fishing in U.S. waters. As a result, NOAA is proposing to overturn the decisions of the citizens of those

states and territories who, cognizant of the dangers facing sharks, have granted them additional protection. SRI has written to NOAA, hoping that the agency will acknowledge that the individual laws complement, rather than conflict with the SCA. To submit a comment to the Federal Register, go to:

<https://www.federalregister.gov/articles/2013/06/17/2013-14331/magnuson-stevens-act-provisions-implementation-of-the-shark-conservation-act-of-2010-correction>

In the US House of Representatives, Congressman Vern Buchanan of Florida has drafted a resolution to ban the importation of shark fins, but a Resolution is not enforceable; it is only a statement of opinion.

Thank You to Our Supporters!

We are very grateful for the continued support of:

- Bill Acker
- The Adikes Family Foundation
- Adventure Aquarium
- Atlantis Dive Resorts & Live Aboards
- Galveston Chapter, American Association of Zoo Keepers
- The Bennett Family Foundation
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- Al Vinjamur
- The WAVE Foundation
- Kathrin Winkler & Angus Campbell
- Wyland
- Josip Zeko

Spring Auction a Success for Conservation Programs

A big **Thank You** to everyone who supported our Spring Auction! More than 200 bidders registered for the auction and bidding was fast and furious. Donors contributed exotic dive vacations, art and sculpture, dive gear and books. Atlantis Dive Resorts and Liveboards contributed a dive vacation at a choice of their luxury resorts, Manta Ray Bay Resort & Yap Divers offered a week's stay and dives with manta rays, Deep Blue Resort donated a week of diving at the resort in Utila with the possibility of encountering whale sharks, Epic diving offered accommodations and diving with sharks in the Bahamas, FunBaja provided a stay in LaPaz and snorkel trip, and Fleet Azul donated a gift certificate to either the Maldives or Sea of Cortez for a trip aboard one of their yachts. Artists Wyland, Pascal Lecocq, Phill Singer, Bonnielynn Brankey, Jeremy Sinkus and Beka contributed their art. Octomask, Feifish and SRI members also donated dive equipment, art, posters, jewelry, a video camera & underwater housing, and shark books from their private collections. To all who participated in the auction and helped to generate needed funds to continue shark conservation programs — you are the greatest!

Mako Horror *by Doug Hack*

Point Pleasant, NJ -- Mako Mania 2013 boasted an \$80,000 grand prize, and the entrance fee was \$475. Fishing boats paid to participate in a shark kill tournament. In addition to usual fisherman one would expect to see at a marina, there were families. I overheard a father tell his daughter: "Someday you'll be big enough to go out and kill one of them yourself". It was really saddening. Sharks were hoisted into the air to applause and joy from the spectators.

Only two of the sharks caught in the tournament were at or above average, the rest were well below. Pictures don't do justice to what was going on at the tournament — bloodied sharks, most of them juveniles, lifted into the air, their bodies bouncing off the dock with blood pouring from their mouths and gills to applause from the spectators. It was a heartbreaking experience. Here is one of the juvenile sharks. Her weigh-in attracted the

attention of a wedding party in the main marina building and the bride and groom decided they wanted a pictures with one of these "trophies".



How disgusting is this? Talk about a lack of respect for an animal that is battling extinction — humiliated even in death so this couple might have a 'magical moment' with its bleeding body in front of the paparazzi. She was very beautiful. Not the bride. The shark.

Rules and regulations of the tournament were reportedly broken. The tournament officials themselves seemed confused as to what the regulations were. My original understanding was that any shark released would have been measured and tagged. One official said some of the boats had tagged sharks. Another said not one boat tagged a shark and that they do not tag any. The official who claimed some tagging takes place stated that the way they kept records of what sharks were tagged was no more than word of mouth. I'm going with that they went against their own rules and tagged a grand total of zero sharks.

I didn't see any official from the State of New Jersey present during weigh-in at Clarks Landing Marina. The only person of any authority was a volunteer representative from NOAA who said was recording the catches. NOAA, the same people who are seeking to undermine the Shark Conservation Act of 2010. NOAA, the same people who claim that local mako populations are improving. Hard to believe that in a 150 boat tournament, the largest shark caught was a 375-lb shortfin mako. As SRI's Dean Fessler and Marie Levine noted at the weigh-ins — an adult, but not big when compared to the 1,323-lb mako caught off California.

In my opinion, NOAA being there was hardly a great thing for the sharks. New Jersey Fish and Wildlife were not even there. Talk about your state letting you down. It shows where their priorities are. Mako Mania is one of New Jersey's largest shark tournaments and the state couldn't even send an official to ensure all regulations were being followed.

I have never been more convinced to keep up this fight up than I am now. There is still far too much work to do to stop. The reaction of the people at the dock, the joy of the wedding couple, the family outing that results in the slaughter of threatened species became too much to take, knowing that much still needs be done to educate the public. Mako Mania 2013 is over. Sharks have died again for the almighty dollar. Somewhere someone is celebrating with a new truck, a large chunk of change and a dead shark, and too many people view such fisherman as heroes. The year is 2013 and we humans still fear these animals for no reason other than the fact that they can potentially harm us, and we can make money off of them. The road to save sharks has never looked so tough, but I will not stop until tournaments like this are ended and sharks around the world have protection from their one natural predator: man.

Call for Investigation of Illegal Shark Hunting in the Red Sea

Egypt's tourism minister Hisham Zazou ordered an investigation into the hunting of sharks in the Red Sea, following a complaint submitted by the Hurghada Environmental Protection and Conservation Association (HEPCA). According to the conservation NGO's complaint, a tourism agent in Hurghada – a city in Egypt on the Red Sea – has advertised shark fishing activities along coral reefs and in nature reserves (which is illegal) and there were other reported incidents of shark hunting in the Suez Governorate.

HEPCA's Dr. Elke Bojanowski has been tracking the movements oceanic white sharks in the Red Sea since 2004. She notes that the last three years yielded the fewest number of identified individuals and/or the lowest resighting rates. In March, the oceanic whitetip shark was one of five species of sharks to receive international protection by an Appendix II listing on the Convention on International Trade in Endangered Species (CITES).

HEPCA and the Red Sea community are also outraged at the recurring slaughter of whale sharks, a species listed on both CITES and the Convention on Migratory Species (CMS). "Whale sharks are one of the most beautiful and timid of the shark species," HEPCA stated. "They feed on plankton and pose no danger to humans whatsoever. The sharks are internationally classified as an endangered species and hunting them is a violation of environmental law."

Dr. Hanafy of HEPCA estimates that each shark in the Egyptian Red Sea is worth approximately US\$40,000 per year to the dive tourism industry, a calculation based on the number of divers flying into Hurghada, Sharm-el-Sheikh and Marsa Alam.



Dr. Mahmoud Hanafy, marine environment professor at Suez Canal University and HEPCA's scientific adviser.

Airlines Stop Transport of Shark Fins

Approximately 10,000 tons of shark fins are traded through Hong Kong. Prominent hotels and restaurants in Hong Kong have been publicly striking shark's fin from their menus, while Hong Kong's main carrier Cathay Pacific stopped carrying shark fins as cargo last September "due to the vulnerable nature of sharks, their rapidly declining population, and the impacts of overfishing for their parts and products, our carriage of these is inconsistent with our commitment to sustainable development," said Cathay Pacific.

South Korea's two largest airlines, Korean Air and Asiana, also announced they decided to ban shark fin from their cargo flights as part of a growing global campaign against the Asian delicacy. Korean Air, which flies to 45 countries, stopped shipping shark fins on June 10. "Korean Air has joined a campaign to protect an ecological system by imposing a complete ban on the shipment of shark fin," the statement said. Asiana, the country's second largest airline, said it was following suit, but did not state when the ban would be enforced. The move brings Korean Air and Asiana into line with a number of other Asian carriers.

Air New Zealand no longer transports shark fins, and according to the South China Morning post, Qantas banned the carrying of shark fins. On June 24, Aubrey Swift, CEO of Air Pacific, Fiji's national airline (soon to be re-named Fiji Airway) said: "We believe a ban on the shipment of unsustainably sourced shark fins is the right thing to do, and have implemented this policy effective immediately."

Although most shark fins are shipped by sea, about 10% are carried as air cargo. Airlines need to know what they're carrying and how they are impacting environmental sustainability; they can have a substantial impact on reducing consumption in Hong Kong. The supply-chain of shark fins and products will no doubt find other air carriers, but the pressure to end the trade will also continue.

Sharks Diving Patterns Guided by the Moon

by *Eve Pearce*

The diving behaviour of grey reef sharks is affected by the sea's temperature and the moon, research has revealed recently. The implications of this are significant, as it could prevent fishermen from inadvertently catching sharks on their expeditions.

The Ocean Institute at the University of Western Australia has spent a number of years monitoring the marine life's behaviour close to Palau, east of the Philippines, along with the Australian Institute of Marine Science. Thirty-nine sharks were tagged in the experiment and the team followed and monitored them for almost three years to produce the results. The sharks preferred the deep water when the moon was full and only ventured into the shallows of the Pacific when there was a new moon. The same patterns of swimming and diving were recorded in the shark's preferred species for feeding, such as the big eye and yellow fin tuna and swordfish, suggesting that the behaviour was related to food.

The researchers believe that the reef sharks avoid the light reflected on the ocean's surface by the moon as a defence mechanism, to avoid predators, such as larger sharks, being able to detect them.

The majority of the group of sharks were females and they were found to dive to around 35 metres during the winter months and up to 60 metres when the ocean temperatures increased. In the summer the reef sharks ventured into a wider depth range and this may be because they are cold blooded and ideally choose the warmer waters to enable them to save energy. The time of day was also significant, with the sharks diving deeper in the morning than the afternoon, reflecting how the light patterns change throughout the day. During the afternoon, the predators began to rise up to the surface again.

The news is thought to be good for conservation, as it may prevent sharks being caught by mistake at various times of the day. Gabriel Vianna, from the University of Western Australia, explained how the tourist industry in Palau relies on marine tourism and on sharks in particular. They are reported to be worth \$18 million a year as an attraction and the depletion of a few dozen sharks from the popular dive sites would be detrimental to Palau's industry.

Overfishing has threatened many species of shark, with 100 million being killed every year, but it is hoped that the regulation of the international trade of five different sharks at CITES will address this problem to some extent.

Research at the University of Western Australia The Western Australian Government has allocated \$646,000 for shark research at the University of Western Australia. This will fund important studies into shark detection and also deterrents such as bubble curtains, sounds and strobe lights. Professor Nathan Hart and Professor Collin are collaborating on a project to develop shark attack deterrent wetsuits which is also being funded by the government, and Dunbar Harper, a Western Australian company. Another Professor at the University, Lyn Beazley, is working on shark mitigation research and education.

Shark Education The UWA runs a Travelling Scientist Program, which is an outreach initiative to the rural schools in Western Australia. PhD students give talks to high school children about careers in science and how marine biology, and particularly shark sensory systems, can be an exciting and rewarding choice. The program was set up to give rural school children the same opportunities to learn about the marine life of Australia as children in city areas.

Metropolitan schools in Western Australia are holding shark education classes to teach children that these marine predators are not man-eating machines. The program is run in liaison with shark conservation, as a response to fears among children and to instil into youngsters that they are not on the menu for these intelligent and selective ocean hunters. It is vital that children in Australia and indeed across the globe are educated thoroughly about sharks to enable them to appreciate the marine life in the waters off shore and to

even study them. With the online resources available to school children, and student marketplace books such as ValoreBooks.com offering educational texts to rent, buy and sell back, students have all the amenities they need at their fingertips to enjoy learning about marine biology. Police Minister Liza Harvey released figures of shark sightings for the end of January this year, with helicopter patrols having counted 246 sharks. For research to have the most impact, the younger generation needs to understand sharks and realise that not only are they a valuable member of marine life, but that conservation is now a priority.

1. <http://www.iol.co.za/scitedch/science/environment/how-sharks-dive-by-the-moon-1.1501530#.UW7GKbvg.TM>
2. <http://www.news.uwa.edu.au/2012/12/075343/business-and-industry/uwa-gets-green-light-major-shark-research>
3. <http://www.theaustralian.com.au/news/west-australian-kids-to-get-shark-education-classes/story-e6frg6n6-1226579524325>
4. <http://www.valorebooks.com/sell-textbooks>

The European Union Closes Loophole in its Ban on Shark Finning

The EU banned shark finning in 2003, but special permits still allowed some fisherman to "process" the sharks they caught on board, with the fins and body then being landed together at one port or separately.

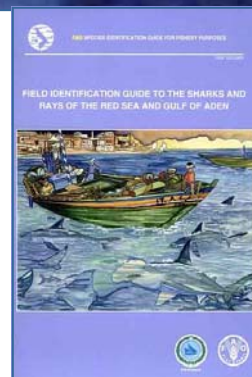
In actual practice, the exemption had "cast doubts on the effectiveness" of the controls on finning and the scientific management of shark populations, EU ministers said in a statement. Closing the loophole reduces the chances of fishermen misreporting their catch. As result, ministers – with the exception of Portugal's representative – endorsed plans to end the exemption "so that sharks can only be landed with their fins attached." This policy enables the EU to push for shark protection at international levels.

Ministers stressed that sharks, skates and rays are "very vulnerable to over-exploitation owing to their life-cycle characteristics of slow growth, late maturity and small number of young." EU fishermen annually land about 110,231 tons of shark and skate worldwide.

Members' Bookshelf

Field Identification to the Sharks and Rays of the Red Sea and the Gulf of Aden, by Ramon Bonfil and Mohamed Abdallah, fully describes 44 species of sharks and 33 batoids. Each species account includes an illustration of the species, identifying characters, basic information such as size, habitat, biology, and distribution. This guide, published by the United Nations Food and Agriculture Organization (FAO), may be downloaded free of charge at:

<ftp://ftp.fao.org/docrep/fao/009/y5080e/y5080e00.pdf>



Field identification guide to the sharks and rays of the Mediterranean and Black Sea, by Fabrizio Serena, describes 49 species of sharks, 34 batoids and a chimera. Each species account includes at least one annotated illustration of the species highlighting its relevant identification characters; basic information on nomenclature, synonyms and possible misidentifications; common names; basic information on size, habitat and biology, distribution, importance to fisheries; and conservation and exploitation status. Color plates for a large number of the species are included as well as two plates showing the egg cases. It is also published by FAO, and may be downloaded without charge at either:

<ftp://ftp.fao.org/docrep/fao/009/y5945e/y5945e00.pdf> — or —
<http://www.fao.org/docrep/009/y5945e/y5945e00.htm>

Field Expeditions

WHALE SHARKS — Cancun, Mexico

August 6 to August 10, 2013.

At present, this is the only open SRI expedition. Dr. Jennifer V. Schmidt, Director of SRI's DNA study and the project leader, will once again be taking swimmers and snorkelers to the Afuera Whale Shark Aggregation. (Note: no scuba; bubbles frighten the sharks). Cost is \$1400 per person (double occupancy). **Only 2 spaces are left.**

SARDINE RUN — South Africa

July 2013

The Sardine Run is one of the ocean's great spectacles! Huge humpback and Brydes whales, hundreds of sharks, great pods of dolphins, and clouds of ocean birds follow to feed on the massive shoals of sardines as they migrate through the warm waters of the Indian Ocean! Spaces are filling up. If you are interested in witnessing and/or diving this incredible marine event, contact us for space availability. Cost for 5 days/6 nights double occupancy is ZAR17,500 (currently US\$1,882), or ZAR19,250 (US\$2,070) single supplement.



Hundreds of whale sharks gather at the surface in the Afuera



Expeditions are also being planned to study:

OCEANIC WHITETIP SHARKS — Bahamas

WHALE SHARKS — Cuba

BLUE & MAKO SHARKS — Rhode Island

If you'd like to come along on any of these expeditions, please call SRI HQ at 609.921.3522 as soon as possible



Photo by Vince Canabal

Coming Events

August 2013: SRI's Annual Shark Celebrity Auction. The auction spotlights celebrities and leaders in shark research or conservation from many organizations around the world that are doing excellent work. All proceeds support marine educational programs *and* winning bids are 100% deductible from US Federal Income taxes. The event provides an opportunity to meet one-on-one with your favorite shark expert!

October 5-10, 2013: Third International Whale Shark Conference. Venue: Georgia Aquarium in Atlanta, Georgia, USA. For information and registration, go to: <http://iwsc3.info>.

October 6-8, 2013: Surf Expo: Orlando, Florida. <http://www.surfexpo.com/>

November 6-9, 2013: Dive Equipment and Manufacturing Association (DEMA) in Orlando, Florida. www.dema.org

June 2-6, 2014: Second Sharks International Symposium, Durban, South Africa. <http://www.sharksinternational.org/Pages/Home>

Kid Power!

On May 10, the second Friday in May, many school children across the USA and Canada celebrated Fintastic Friday to raise awareness about the plight of sharks. Events were held, petitions gathered, and talks about sharks were given. At St. Sebastian School & St. Stanislaus Kostka Catholic Academy in Brooklyn, NY, students gathered hundreds of individual notes and hand-written letters asking for more shark protection and an end to shark fin trade. The kids sent them to SRI, and we forwarded all of them to Governor Cuomo of New York, also urging him to sign the shark fin trade bill into law. The New York bill passed the House, the Senate and the Assembly is still sitting on Governor Cuomo's desk awaiting his signature.



This is the Polka Dot Cupcakes kindergarten class, a class for gifted children in Colorado. They became passionate about protecting sharks and sponsored a booth at the Kids Who Care Share Fair at their school. They raised almost \$300 for shark conservation by making and selling items such as shark key chains, pins and stationary. *Yeah Cupcakes!*

Mako and Sandtiger Shark Projects



March 2013 saw unprecedented protection for five species of sharks at the Convention on International Trade in Endangered Species (CITES). At the next meeting of CITES in 2016, to be held in South Africa, additional shark species will be proposed for



CITES protection. Likely candidates are mako sharks and sandtiger sharks. Since CITES delegates require scientific evidence that species need their protection, SRI is gathering data on populations of both species. A number of dive tour operators who feature diving with these species, have been sent data gathering forms (available on waterproof paper) and faxing them to SRI. If you are or know divers or dive operators who also wish to participate, please contact SRI Headquarters.

Proposed Floating Aquarium to Feature White Sharks

Australian businessman Travis Nottle has applied to the City Council of Port Lincoln, Australia, for permission to build a floating aquarium to house white sharks. Nottle hopes to build a "Great White Shark Discovery Centre" as a major tourist attraction in which sharks would be kept for months at a time in the open ocean enclosure. Although very close to shore, visitors would be taken to the centre by ferry. He wants to create "a significant floating piece of infrastructure to temporarily accommodate a live great white shark in captivity with the shark's health and well being [at the] forefront of the design." He says the aquarium would enable people who cannot or do not want to dive with sharks, to observe a white shark at close range. He estimates it will cost Aus\$35 million to build the aquarium but it will generate Aus\$30 million annually for the area, and would open in 2016.



He estimates it will cost Aus\$35 million to build the aquarium but it will generate Aus\$30 million annually for the area, and would open in 2016.

Journal Article Analyses Economic Value of Shark Tourism

Cisneros-Montemayor, A. M, Barnes-Mauthe, M, Al-Abdulrazzak, D, Navarro-Holm, E and U. Rashin Sumalia, U. (2013) Global economic value of shark ecotourism: implications for conservation. *Fauna & Flora International, Orynx*, pp.1-8.

This new study analyzes management of shark populations as economic resources, providing the first global estimate of the current and potential contribution of shark ecotourism in terms of tourist participation, tourist expenditures and employment, and compares it with the landed value of shark fisheries. It notes a mean annual increase in visitors at shark watching sites of almost 30% during the last 20 years with visitor numbers increasing as new sites become available. Tourist participation can lead to increased awareness and support for shark conservation. Even relatively poor fishing communities with important shark fisheries may be amenable to conserving sharks given proper economic incentive. Reducing fishing mortality for overexploited species is a priority for any management framework and as the ecological and economic value of sharks is increasing recognized, more shark sanctuaries are being created.

The study determined shark ecotourism currently generates more than US\$314 million annually worldwide and is expected to more than double to US\$780 million in the next 20 years.

Scotland Reports Shark Spawning Ground



G. melastomus

Marine scientists in Scotland report that they have discovered a deep-sea shark spawning ground on the country's only inshore coral reef.

Researchers from Edinburgh's Heriot-Watt University, said they observed egg cases of the blackmouth catshark, *Galeus melastomus*, on the Mingulay Reef in the Outer Hebrides, Anglers in the area fish for the deepwater sharks but this is the first time their spawning grounds have been found. The egg cases were found nested in corals at depths of 540 feet to 565 feet on the leeward side of the reefs where they are protected from being washed away by strong currents.

"It's very exciting to find these spawning sites, as there's still relatively little information about deep-sea sharks' habitat across their life cycles," researcher Lea-Anne Henry reports. "Our research is revealing many close links between cold-water corals and the early life stages of sharks, skates and rays. The sharks are choosing these sites because the corals have many hard branches which deter predators, and laying egg cases in the lower part of the seabed, away from the current, reduces the risk of them drifting away." "The European Union is considering designating the site as a marine protected area," she said.