



Newsletter

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Western Australia announces extreme measures for Public Safety

by Chris Fallows



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The sad news that Western Australia is planning on introducing a shark cull off their beaches is a massive blow for marine conservation, not only in Australia, but globally. All that this will do is give impetus to more culls around the world irrespective of any scientific or ecological input. The fact that this is being sanctioned in a first world country makes it that much worse.

We certainly do sympathise with the families who have lost loved ones for any reason, but to order the eradication of a threatened apex predator merely so that

we can recreate is a very big step backwards, especially when so many alternatives are on the table.

Amongst many things Nelson Mandela taught us was the fact that we need to make decisions based on fact and consultation and not emotion. Another of the modern world's greatest leaders, Mahatma Gandhi said "You judge a society by the way it treats its animals." With respect to both of these great leaders statements, those making decisions in Western Australia are certainly falling short.

Ironically,, in South Africa, a country with tremendous socio-economic pressures and high shark attack statistics some fishermen have chosen to release sharks rather than kill them. They do this because they realise their value to the ecosystem as well as the fact that it is simply not right to wantonly kill anything based on human arrogance.

We thought it very apt as Australia looks to implement a cull order that we post an image of a massive shark being released off Muizenberg beach on December 10, 2013. This is South Africa's most popular family surfing beach which has over the years seen several shark related incidents and today has a "Shark Spotters" program in place that offers a positive non-lethal alternative to keeping beaches safe.

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And now the Good News!

The demand for shark fins by China continues to plummet. It is down by 50 to 70 percent in just the past two years.

Since the mid-1990s, expansion of China's middle and upper classes transformed the country into a major consumer of shark fins. Shark fin soup is thought to have been created more than 1,000 years ago during the Sung dynasty by an emperor who served it to honored guests. Then, in the mid 1990s with the expansion of China's middle and upper classes, serving the soup at lavish weddings and banquets became a sign of social status. The dish became so popular that some shark populations declined by 98 percent in the last 15 years, primarily due to the demand for shark fin soup and the 14 species most commonly caught for their fins are at risk of extinction.

In 2012, the Chinese government pledged to ban shark fin soup from official banquets within three years, but on December 8, 2013, the Xinhua news agency reported that China's central authorities had published a regulation that explicitly ruled out dishes containing shark fins, bird nests and wild animal products in official reception dinners. The same instructions were sent out to the government in Hong Kong, a major center for the shark fin industry.

In 2009, the Alibaba, the largest online B2B platform in China, announced it would no longer permit shark products to be bought or sold on its site. In 2011, environmentalist Jim Zhang convinced around 30 members of China's 2,987-delegate parliament, the National People's Congress, to sign a proposal calling for a ban on shark fin imports. Although initially rejected, his second proposal met with success, helped by the finding that many soup samples contained dangerous levels of cadmium and methyl mercury. Shark fin imports to Hong Kong tumbled this year as result of a campaign, headed by Hong Kong based Alex Hofford and Ran Elfassy and supported by shark conservationists around the world, to convince air carriers to stop the transport shark fins to Hong Kong. As a result, LAN Chile / LATAM Airlines Group, Eva Air, Aeroméxico, Emirates, Korean Airlines, Asiana Airlines, Qantas, Air New Zealand and Garuda agreed to stop carrying shark fins. Thanks to social media the momentum grows among young people in China who, on learning about the cruelty of shark finning, and how important sharks are to the ocean, have taken pledges to never eat the soup.

This new attitude could spell a reprieve for other endangered wildlife, particularly in Africa where China's skyrocketing demand for ivory has fueled a huge expansion in elephant poaching. Some 25,000 elephants were poached last year, and 668 rhinos killed in South Africa alone, with China the largest market for ivory, and the second largest for rhino horn behind Vietnam. The illegal wildlife trafficking has financed global crime networks and local insurgents including Somalia's al-Shabab, responsible for the attack on a shopping mall in Nairobi.

New Affiliation: SRI & SharkProtect

When SRI was founded more than 20 years ago, there were no other organizations of its kind — actually there still are none that concentrate on *both* research and conservation. However, today there are many organizations that working to protect sharks. Some are doing excellent work to raise awareness, but the physical location of others limits their ability to get their message out to a wide audience.

To inform an even greater number people about sharks and the need for their protection SRI and SharkProtect (www.sharkprotect.com), a Germany-based non-profit, are now affiliated. The objectives of both organizations are fully-compatible. SharkProtect focuses on public education, and we have worked together previously with excellent results. As of December 1, members of SharkProtect are supporters SRI and will receive our newsletters and alerts, and all SRI supporters are also members of SharkProtect. The affiliation enables both organizations to share many of their resources, and significantly expand the numbers of people they are able reach in Europe and the USA.

Thank You to Our Supporters!

We are very grateful for the continued support of:

- The Adikes Family Foundation
- Adventure Aquarium
- Atkins
- Atlantis Resorts
- Galveston Chapter, American Association of Zoo Keepers
- The Bennett Family Foundation
- William Bunting, Jr.
- Patricia Chock
- Seth Davidson
- Deep Blue Resort
- David Doubilet
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- Max & Victoria Goodwin
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- Greg Sparks
- Donald Nichols Storch
- Oakleigh B. Thorne
- The Barbara & Donald Tober Foundation
- Al Vinjamur
- The WAVE Foundation
- Kathrin Winkler & Angus Campbell
- Josip Zeko

Every Shark Counts by Captain Maureen Langevin

Awesome progress for sharks on the macro / global / political level! Wow.

I wanted to share this story with you showing progress at a micro level as well. Over several years in support of shark conservation I've had the pleasure to meet and talk with many fishermen, recreational and tournament savvy. Their argument always was, "we only take a few sharks, it's the commercial fishermen that are devastating the species". I understand their point but also explained that is why EVERY SHARK COUNTS. Any shark taken will have an impact since their numbers are reduced, they do not breed until they are many years of age, and have very small litters compared to other fish.

A few stories came back to me that made me very happy over the past several years. One was from an elite tournament fisherman who went out of his way to release a small mako shark, although legal – and even got the hook in his hand in the process! He couldn't wait to tell me. I've heard a couple more stories to that extent from him so I know I got the point across to him and I know he shares my story with others..

The other story I recently heard was from a recreational fisherman who was at the canyon, caught some tuna and mahi and a mako. He decided to release the mako based on what we (Steve and I) explained as to why every shark counts.

I thought you would like to know our fight for shark conservation is happening on several fronts behind the scenes: in our scuba classes, through our children's and adult videos, on our boat dive trips, and with fishermen at the marina. Today, the fishermen also know they can actually make a difference and that EVERY SHARK COUNTS. :-)



More News!

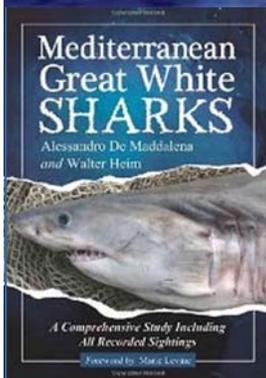
- The Secretariat of the Convention on International Trade in Endangered Species (CITES) has launched a section on their website about sharks and manta rays to assist the 179 Parties to the Convention in putting in place effective measures to control international trade in the newly listed species (www.cites.org) now have less than 10 months before they must start regulating international trade in the oceanic whitetip shark (*Carcharhinus longimanus*), scalloped hammerhead shark (*Sphyrna lewini*), great hammerhead shark (*Sphyrna mokarran*), smooth hammerhead shark (*Sphyrna zygaena*), porbeagle shark (*Lamna nasus*) and manta rays (*Manta spp.*). The regulations will enter into force on September 14, 2014.

- The International Commission for the Conservation of Atlantic Tunas (ICCAT), chaired by Masanori Miyahara of the Fisheries Agency of Japan, is a body of the major Atlantic tuna and shark fishing nations, as well as other Atlantic coast nations. ICCAT has been responsible for conservation of certain marine species in the Atlantic Ocean and adjacent seas since it came into force in 1969. At last month's ICCAT meeting in Cape Town, South Africa, a proposal to ban fishing of porbeagle sharks was opposed by Canada and blocked, and ICCAT once again failed to protect two other vulnerable shark species in the Atlantic: the shortfin mako and the blue shark.

- The 62-acre Hilton Waikoloa Village, on Hawaii's Big Island is adding a blacktip sharks to its lagoon to help educate visitors, and plans to offer shark interactions in the future. The two sharks were raised in captivity and both are 4.5-foot long males. The hotel hopes having them in the lagoon will help to demystify sharks and enable them to serve as "ambassadors for their wild counterparts."

- Thanks to the generosity of sponsors Scuba Lessons Inc./Florida Conservation Dive Club, the Shark Whisperer Organization (www.sharkwhisperer.org) will be launching a campaign in 2014 to raise funds enabling dive training and certification at no cost for Ocean Blue Pride veterans. The objective is to educate and create an awareness of ocean life, and transform our American Heroes into Ocean Heroes.

Members' Bookshelf



Mediterranean Great White Sharks, A Comprehensive Study Including All Recorded Sightings, by Alessandro De Maddalena and Walter Heim, with foreword by Marie Levine. Paperback \$52.25 and less from Amazon.com.

In 1996, the Italian Great White Shark Data Bank began collecting & recording encounters in the Mediterranean between white sharks and boats, bathers, divers and fishermen from the Middle Ages to the present. This meticulously researched book presents the study's findings. It is a rich resource for historians, scientists, fishermen and divers.

Schwarzbuch WWF, by Wilfried Huisman. Kindle edition \$32.99, new hardcover \$41.01, and less for paperback or used editions from Amazon.com

"It is easier to penetrate the secrets of the CIA than the WWF," says Raymond Bonner, New York Times investigative journalist. Wilfried Huisman dared anyway and penetrated its heart. The panda of WWF enjoys the confidence of donors so far, but he has a second face: For money, the WWF washes green the environmental crimes of industry." WWF tried unsuccessfully to get the book banned in Germany but without success.



Study Shows Sharks Prefer to Approach Humans from Behind

Erich K. Ritter, E Raid Amin (2013) **Are Caribbean reef sharks, *Carcharhinus perezii*, able to perceive human body orientation?** *Animal Cognition*, 2013; DOI: 10.1007/s10071-013-0706-z

To hunt successfully a predator needs to correctly perceive the body form, size and movement of its potential prey. Studies confirm this is also true when sharks hunt. Descriptions of a shark's approach to typical prey indicate that these predators prefer to avoid the field of vision. In other words, a shark would tend to approach a person from behind. These observations underlie the yet-untested assumption that sharks are able to identify human body orientation and can use such information in a self-serving manner. Ritter and Amin set about to deepen the understanding of how sharks select an approach pattern when interacting with humans. A test was designed to evaluate if sharks show a measurable preference based on body orientation when approaching a person, and if they choose a certain swim pattern when close to a human being. In one experiment, a diver in full scuba gear was positioned on the sea floor in a kneeling position, looking forward. In another, two divers kneeled back-to-back to eliminate the blind area. They found that when approaching a single test-subject, significantly more sharks preferred to swim outside the person's field of vision. The results suggest that sharks can identify human body orientation, but the mechanisms used and factors affecting the nearest distance of approach remain unclear.

Tumors in Sharks

Scientists have known for more than a century that sharks get cancer. Yet, the belief persists that sharks don't suffer from the disease. The misconception was widely promoted by those who sell shark cartilage, who claim that the substance will help cure cancer. One was Frank Lane, author of *Sharks Don't Get Cancer* and owner of Lane Labs which produced a shark cartilage product called Benefin. What received less media coverage was the US government's suit and fine against Lane Labs for unlawfully promoting the product as a treatment for cancer, dangerous because it diverts patients from effective treatments. No studies have ever shown that shark cartilage is an effective treatment for cancer, but the demand for cartilage has helped decimate shark populations.



Tumor on the mouth of a white shark

Anecdotal reports suggest that sharks may be less prone to malignancies, but there hasn't been a large scale study. What is known is that sharks have a faster immune response than humans, and like us, they seem to get cancer in response to environmental toxins, as well as other diseases, including bacterial infections and parasites.

Recently, researchers at the Fox Shark Research Foundation in southern Australia observed a one-foot (30-centimeter) by one-foot tumor protruding from the mouth of a white shark, and a mass on the head of a bronze whaler shark. To date, the scientists have documented tumors in 23 species of sharks. "The main take-home message from the study is that it adds to the growing evidence of tumor formation in sharks, contrary to popular belief that sharks do not suffer from such anomalies," said Rachel Robbins, one of the researchers involved in the study.

It's unknown why the tumors in the white or bronzer shark developed. However, reports of cancerous tumors in marine animals, especially mammals, have steadily increased over the past 20 years, raising concerns that pollutants may be triggering the cancers. In areas near aluminum smelting plants, cancer is the second leading killer of beluga whales. The study is available online in the November issue of the *Journal of Fish Diseases*.

Another Pickled Shark from Hirst



After a seven-year fabrication process, *Leviathan*, the latest work by artist Damien Hirst, is now on display in Doha, Qatar. *Leviathan* is a 6.8-metre basking shark that washed up on a British beach that Hirst subsequently acquired from the Natural History Museum in London. *Leviathan*, suspended in a display case filled with turquoise formaldehyde, is the showpiece of an exhibition titled "Relics" which includes 93 pieces by Hirst currently on display until January 22, 2014 at ALRIWAQ, a temporary exhibition space located on the waterfront next to Doha's spectacular Museum of Islamic Art.

Upcoming Events



January 9-11, 2014: Surf Expo. Venue: Orange County Convention Center, Orlando, Florida. www.surfexpo.com



March 14, 2014: One of our favorite local events! The Science Fair. Venue: Hopewell Elementary School, Hopewell, NJ. 5 to 8 pm.



March 28-30, 2014: Beneath The Sea. Venue: Meadowlands Convention Center, Secaucus, New Jersey. www.beneaththesea.org

May 15 to 29, 2014: SRI Spring Auction.



June 2-6, 2014: The Second Sharks International Symposium. Venue: Durban, South Africa. www.sharksinternational.org

Serious Scholars / Silly Shark Movies

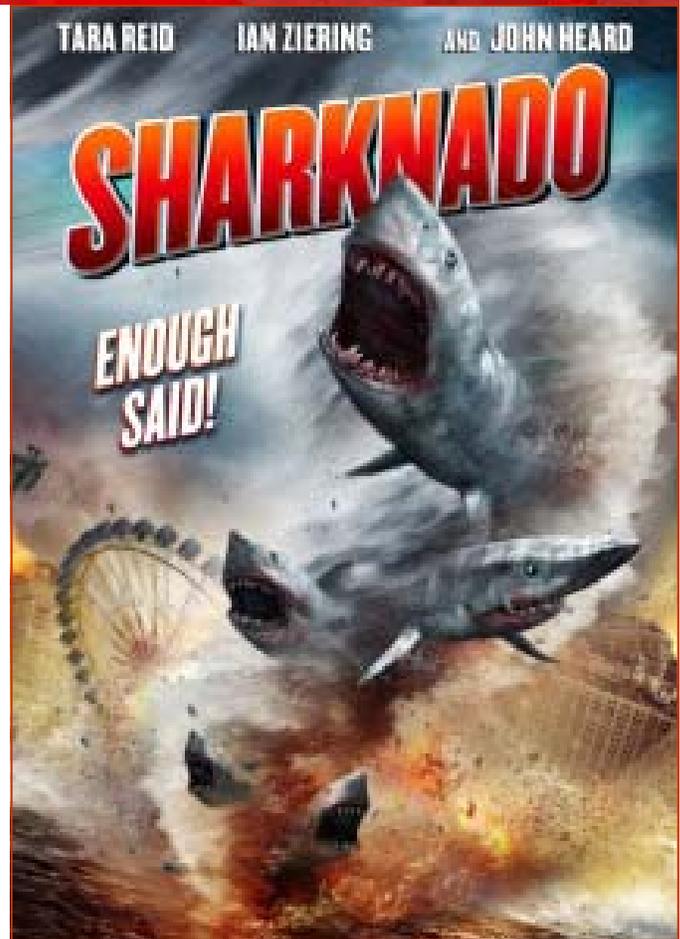
A thought-provoking and hilarious event was held at Barnard College, Columbia University last month. The seminar, sponsored by the Department of Anthropology, was the first of a four-part series, *Nature/Culture in Film – Serious Scholars talk about Silly Movies*, and a screening of *Sharknado*.

With millions of mentions on Twitter, *Sharknado* was the most watched film in the history of the SyFy Channel. Set in Los Angeles, the plot is absurd: huge waterspouts lift up hundreds of sharks from the ocean which then rain down upon a intrepid set of B-list actors.

Panelists included anthropologists Patrick Nason and Michael Taussig; Paige West, the Tow Professor of Anthropology at Barnard College; Dr. Joshua Drew, Conservation Biologist from the Department of Ecology, Evolution and Environmental Biology at Columbia University; Jeff Sebo, Assistant Professor/Faculty Fellow of Animal and Environmental Studies at New York University, and Marie Levine of SRI. As the film was screened, students viewed the panelists impressions on Skype (anyone who has seen the film can guess the gist of the comments)!

After the screening, panelists had a conversation about the film, its popular success, and some of the deeper historical and cultural forces propelling this strange phenomenon. “The shark”, no longer simply an aquatic predator, has become something much more to the Western imagination. At the same time, there is an unprecedented effort to protect shark populations from the threats of finning and overfishing. As conservation organizations and policymakers fight this good fight, are their efforts helped or harmed by public perceptions and cultural habits, all of which are closely linked to film, art, and other mediated experiences?

For those who can't wait for the sequel to *Sharknado*, *Sharknado II: The Second One*, said to be released in 2014 and probably set in New York City, here is a blurb found on the internet about the next silly shark movie. “Killer sharks are like peanut butter and jelly – an American classic. And that delicious pairing continues with *Mega Shark vs. Mecha Shark*, the latest output from the studio that never quite understood the concept of “shame.” Once more, enlarged marine life emerges from the seas to threaten all mankind. Once more, common sense is thrown out the window, as the military decides the best course of action is to fight stupid with stupid and build an equally gigantic robot shark. Once more, the cast is dotted with minor celebrities trying to keep their careers afloat – this time, it's singer Debbie Gibson and actor Christopher Judge (better known as “that dude with the thing on his head from *Stargate SG-1*.”



New Hammerhead Species!

When new species are found near populated areas, they are generally small and inconspicuous. But researchers from the University of South Carolina discovered a new species off the state's coast that looks identical to the scalloped hammerhead, but is genetically distinct, and contains about 10 fewer vertebrae, or segments of backbone. The new species, named the Carolina hammerhead, *Sphyrna gilbert*, gives birth to pups in estuaries near the shore off the Carolinas. The scientists collected 80 young sharks that appeared to be scalloped hammerheads, but on analyzing their DNA, found that they were distinct from their scalloped cousins. Of the 80 sharks, 54 belonged to the new species.

Extinct Megamouth Species Identified

Scientists have identified a new species of megamouth shark that swam in the ocean 23 million years ago, nearly 50 years after the first teeth were first discovered and then forgotten.

"It was known to be a new species for a long time," said Kenshu Shimada, a paleobiologist at DePaul University in Chicago. "But no one had taken a serious look at it." Its teeth were first found in the 1960s, but at the time, there were no similar living creatures so scientists didn't quite know what to make of them. Hundreds of their teeth turned up along the coast of Oregon and California and were tossed into drawers in a few museums. Then, in 1976, the modern megamouth shark was discovered. The shark inhabits the deep ocean by day, rising to the shallows at night to feed on plankton.

When Shimada found the teeth at the LA County Museum he contacted Douglas Long of the California Academy of Sciences and Bruce Welton of the New Mexico Museum of Natural History, and persuaded them to take a second look at the teeth with him. The team found the ancient creature was related to the modern megamouth shark, *Megachasma, pelagios*. The ancient shark would have had a longer snout than the modern megamouth and probably grew to an average length of 20 feet, possibly 27 feet, close to the size of a modern megamouth shark. But unlike the modern shark, it had slightly longer, more pointed teeth. That suggests the shark may have fed on plankton but may also have been feeding on fish. The teeth had been found in deep ocean and near shore sediments, suggestive that the shark had started migrating between the two habitats in search of food. The new species has yet to be named, but its genus will be *Megachasma*. The findings will be published in a forthcoming issue of the *Journal of Vertebrate Paleontology*.



Shopping for holiday gifts? Consider a giving an Adoption of one of the Whale Sharks that SRI has tagged, or select a book from SRI's Shark Shop at www.sharks.org.

Wishing you a very Happy Holiday Season
And a Great New Year!!

Photo by Amos Nachoum