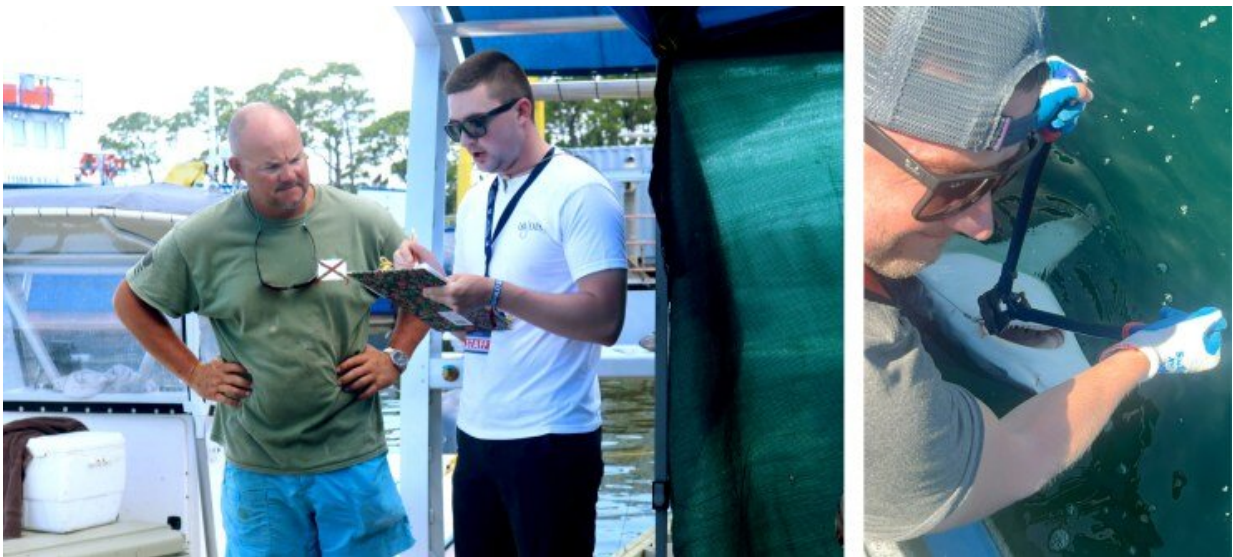


Shark Week, the 'Jaws effect' and how more great whites in the water are changing human behavior

July 22 2022, by Cynthia McCormick Hibbert



Credit: Evan Prasky

Cape Cod resident Doug Fraser realized he had made the right decision to give up boogie boarding in favor of a standup paddle board the day a great white shark swam under him and rolled over to take a closer look.

From his standing position on the paddle board, Fraser was able to see the shark coming and the roll that exposed a dark, hollow-looking eye.

"I switched from boogie boarding probably four to five years ago because you look a little too much like a seal when you sit there in the water with fins dangling," says Fraser, a writer who formerly covered the fishing industry—and sharks—in Massachusetts.

"I really enjoyed boogie boarding," Fraser says. "I changed my attitude."

There are no statistics on how many people have given up boogie boarding, surfing or long distance ocean swimming because they fear encountering one of the hundreds of [great white sharks](#) hunting for seals off the Atlantic-facing beaches of Cape Cod, a popular tourist destination spot in Massachusetts.

But there is no doubt the sharks' growing presence has changed human behavior on and near those waters, especially after 26-year-old boogie boarder Arthur Medici was killed by a great white off Wellfleet on the Outer Cape nearly four years ago.

The Swim for Life charity event in Provincetown, Massachusetts, that draws hundreds of participants will, for the second September in a row, take place in shallow waters of the East End shoreline rather than the traditional deepwater route across Provincetown Harbor due to concerns about sharks, whose local population peaks in late summer and early autumn.

And at ocean-facing beaches from Chatham to Provincetown, lifeguards keep beachgoers close to shore, especially during high tide when sharks ride the swells parallel to the beach in the hunt for seals.

"If they go waist deep or any further, lifeguards will call them back," says Leslie Reynolds, deputy superintendent of the Cape Cod National Seashore.

She says it used to be that lifeguards had to blow their whistles multiple times a day to get bathers closer to shore due to rip tides or big currents.

But now lifeguards report it's a rare occasion when they have to wave people in, Reynolds says.

"Behavior has changed. People have learned. Without a doubt, people are staying closer to shore," she says.

People's reluctance to go deep may also have something to do with the purple shark flags and giant billboards signaling the presence of great whites that greet beachgoers, messaging tips imported from South Africa and Australia, among other places with a large shark presence.

It's all part of an education program called [Shark Smart](#).

"A handful of years ago, after we talked to South Africa, we saw they were using shark flags," Reynolds says.

"You go to any beach, and it will be up. Whether you see the shark or not there are sharks present, and you have to adjust your behavior when you are recreating in the water."

Also popular with the public is the [Sharktivity app](#) operated by the Atlantic White Shark Conservancy, which shows users the locations of white shark sightings.

The Sharktivity app registered dozens of great white sightings off Cape Cod during the week of July 17, with two being spotted off Nauset Beach in Orleans July 19 around the same time, one of which was only 50 yards from shore and moving toward the beach.

The sharks' proximity to the surf line has been documented multiple

times, with a recent study showing that great white sharks off Cape Cod spend 47% of their time in water less than 15 feet deep. But hugging the shoreline for safety's sake won't work for the Cape's surfing community, made up of residents and seasonal visitors.

Some surfers have banded together with other ocean recreation enthusiasts to form Cape Cod Ocean Community, which is raising funds for increased shark surveillance in the form of drones and spotter planes.

People whose enjoyment of the ocean is being threatened by great whites are not just surfers, says Heather Doyle, co-founder and chairperson of Cape Cod Ocean Community. "It's swimmers. It's people that used to dive for lobsters. It's boogie boarders, which used to be a pretty fun thing to do with your kids."

"How long will it be before we only go up to our ankles?" Doyle says.

Her organization has called on authorities, including officials from the Cape Cod National Seashore and Atlantic White Shark Conservancy, to embrace the use of advanced technology to promote shark safety.

Accelerating a pilot project to provide real-time data every time an acoustically tagged shark "pings" off a buoy containing a receiver would be one way for the seashore and shark conservancy "to put your money where your mouth is," says Doyle, whose organization is doing its own fundraising for drones and spotter planes that could operate when lifeguards are off duty.

Not all the solutions are high tech, Doyle says. She says Australia has a Shark Stoppers program in which people in high towers look for sharks with binoculars.

Doyle says her organization analyzed several years of data from the

Atlantic White Shark Conservancy and found tagged great whites pinged off receiver buoys around Cape Cod thousands of times last year. "It's certainly a reflection of our reality now. The danger is much greater than it used to be. (The sharks) have not always been here to this degree," Doyle says.

The increased presence of great white sharks off Cape Cod is part of a conservation success story that has grabbed world-wide attention. The local seal population rebounded in the decades following the Marine Animals Protection Act of 1972. Great white sharks soon followed.

"They are hunting on the Outer Cape, close to shore," says shark expert Greg Skomal, of the Massachusetts Division of Marine Fisheries.



Credit: Hannah Moore/Northeastern University

Since the 1990s the number off Cape Cod "has increased, absolutely," he says.

A soon to be completed five-year study of the shark population should reveal some answers about the actual number of great whites off the coast of Massachusetts, Skomal says. About 300 great white sharks have been tagged as part of the division of marine fisheries program.

His first tag of the season July 14 was a 12-foot great white off Chatham's North Inlet, proof that large sharks still patrol the waters undetected by current technology.

Susan Mello, associate professor of communications studies at Northeastern University, says the Cape's Shark Smart program is a good example of risk management communication. The use of bullet points on the Cape Cod National Seashore website and the flying of the purple shark flag are ways to get complex information to the public in an easily digestible format, she says.

"When you're in a situation where there's elevated fear, it's really hard to get messages through so people can act on the information. It's why we teach little kids to 'stop, drop and roll' during fire emergencies," Mello says. "It's important to distill information on how to reduce risk into its simplest form when fear is elevated."

The Cape Cod National Seashore also provides information about other risks such as rip tides, strong currents that put the shark danger in context, Mello says.

That's important because media depictions of sharks focus on their potential lethality when there have been few shark fatalities in the U.S., Mello says.

The Florida Museum, which maintains an International Shark Attack File, says that in 2021 11 people were killed by sharks worldwide, a figure that pales in comparison to deaths by lightning strike.

Even so, a 2021 content analysis of more than 250 episodes of Discovery Channel's Shark Week—which this year begins Sunday, July 24—found many shows were framed around fear, risk and adrenaline, although 53% also included conservation messages, Mello says.

It's "the Jaws effect," she says. "Unfortunately in this situation, the media is at fault."

Sharks continue to make headlines this summer, with reports of six people bitten off Long Island in New York, none fatally, as of July 20. But the recent attention to sharks also has given them star power.

An April 2022 report says that tourists and voters feel the beauty and ecological and economic benefits of great white sharks off Cape Cod outweigh the fear factor of having the world's largest predatory fish swimming at times the length of a pool from the beach.

Social media users have found the fastest way to get a negative response is to post photos of dead sharks hanging on the dock at fishing tournaments.

When it comes to how people view sharks, "there are two extremes," says Evan Prasky, a Ph.D. student in marine and [environmental science](#) at Northeastern University.

Some people—including charter fishing crews and frequent anglers—believe it's OK to fish for sharks in small numbers, particularly if the population is rebounding, says Prasky, who is conducting an online survey of over 1,000 people about their perceptions of how shark depredation impacts fishing.

Other people are of the opinion that no shark should be taken under any circumstances, he says.

"They are in complete denial that this animal is like another fish."

"The protection around sharks is (a) great development," Prasky says. But he says some species are doing so well in the Gulf of Mexico that they can be harvested sustainably and responsibly.

Prasky was on Dauphin Island off the coast of Alabama in July for the Alabama Deep Sea Fishing Rodeo, which brought back a shark fishing category for the first time since 2015.

Every one of the 10 to 12 tiger and bull sharks killed was handed over to scientists for dissection and provided a unique opportunity to sample large mature sharks, Prasky says.

"We're basically getting as much information out of this animal as we can. It's a whole scientific process," he says.

Science or not, the display of a 14-foot tiger shark caused jaws to drop. "It's a show stopper," Prasky says.

For Fraser, seeing a great white up close while paddle boarding provided a jolt of adrenaline like no other. "You only have to see one under your board to realize how huge they are in comparison with you," he says. "The shark influx really came with a loss of innocence," says Fraser, who

is in the trailer for Discovery Channel's Shark Week.

"The sense of the ocean as a playground is now mostly gone. In the back of your mind is the danger that's always there except in the dead of winter."

Fraser encountered the shark that eyeballed him two years ago, while paddle boarding off Nauset Beach—about 17 miles by road from Newcomb Hollow Beach where Medici died on Sept. 15, 2018.

"The shark circled me twice while I was paddling in," Fraser says.

He remembers that the waves were great that day. He waited about a half an hour in hopes that the white shark had cleared the area, then paddled back out.

Provided by Northeastern University

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