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Sharks Tagged Off Montauk Reveal Their Movements In Real Time

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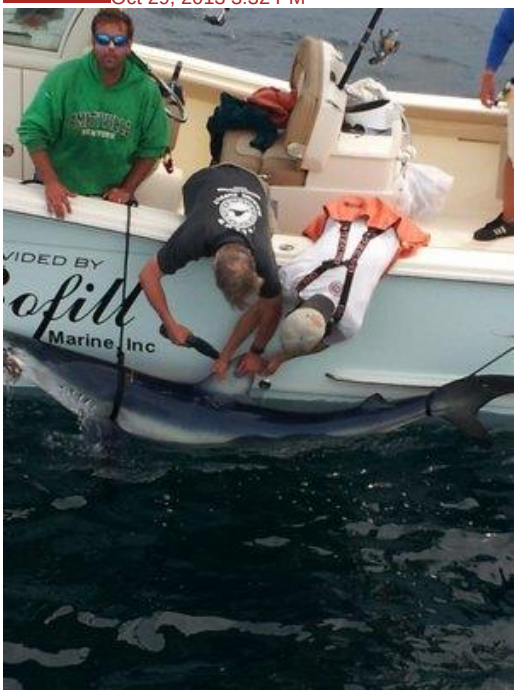

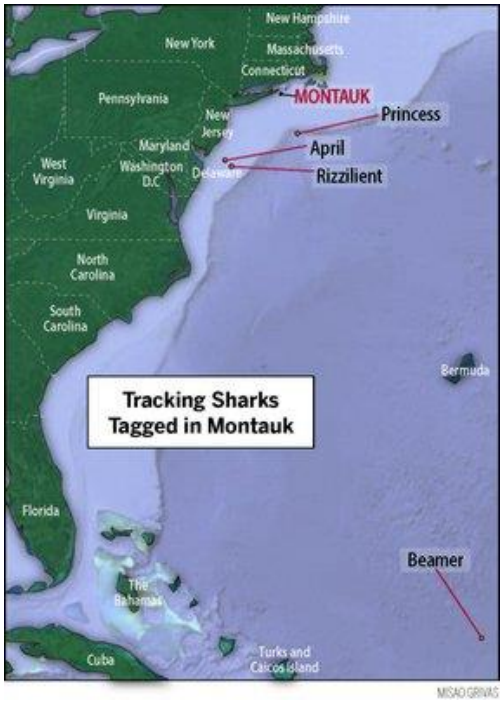

Dozens of sharks caught during Montauk's first satellite tag and all-release tournament in July got a new lease on life, and, ever since, four of those fish have been contributing to scientific research—for all the world to see.

The four swimmers—named April, Beamer, Rizzilient and Princess—avoided a fate all too familiar for their kind, winding up killed for sport. Instead, they were caught using safer, circle hooks and each tagged with satellite GPS devices and set free during the Shark's Eye Tournament, held on July 27 and 28. In the months since, the nonprofit organization, Ocearch, which researches great white sharks and other large apex predators, has been tracking their movements, and mapping them online so the public can follow along.

"It's just mind-blowing to see where these fish are," said Rav Freidel, a shark conservation proponent and Concerned Citizens of Montauk member who said he checks the sharks' locations pretty much every day. "They used to fill the Dumpsters up with them, but we're now seeing this incredible journey that Beamer has been taking. I think it will change a lot of attitudes. The blue shark has really got everybody jazzed up."

That blue shark he's referring to is "Beamer," a 9-foot, 200 pound male. Since being released near Montauk on July 28, he has swum nearly 3,500 miles, heading north around New England before, in mid-August, beginning a steady southward swim. As of Monday night, his most recent "ping," he was north of the British Virgin Islands, according to the shark tracker at ocearch.org.

A ping is determined when the tagged shark's dorsal fin breaks the surface of the ocean and transmits a signal to a satellite overhead. The transmission then sends back an estimated geolocation. The pings are plotted on a map and updated in real-time, shedding new light on shark movements, said Chris Fischer, the founding chairman and expedition leader of Ocearch.

"This is the first time we've been able to see these pathways," he said, adding how the plots can help answer questions about how sharks navigate, breed and give birth—essential information needed to protect sharks, which play a critical role in the seas.

"They are the lion of the ocean, the balance-keeper of the ocean, so are we really going to trade a robust future for the ocean for a bowl of soup?" he said, referring to the fact that 200,000 sharks are killed daily and 73 million a year just to make shark-fin soup, which is considered a delicacy in some countries, particularly China.

Sharks, as an apex predator, keep the environment in balance, often by keeping the second-tier predators from becoming too great in numbers, he explained. On a reef, for example, sharks keep the second-tier predators' population in balance. Without them, those predators would eat all the fish that maintain the reef and the reef would die, he said.

"When you remove these sharks, these lions, these apex predators," he said, "the whole food web wobbles out of balance, which ends up in collapse and then there's no fish. If we want to have a lot of fish in the future, we must have a lot of sharks. There is just no robust path forward for the ocean without lots of sharks."

Montauk School Superintendent Jack Perna and sixth-grade science teacher Todd Brunn named Beamer, evoking "beams" of guiding light from the Montauk Point Lighthouse and "beaming" signals when he surfaces, Mr. Brunn said. His students track the sharks regularly, he said, and use the data in other subjects, such as social studies.

Meanwhile, April, a 5-foot-long, 103-pound female mako shark, and Rizzilient, a 5-foot-long, 84-pound female mako shark, have pinged in a more jagged, zigzagged pattern similar to each other around the northeast states. Their most recent pings in the last week have been off Ocean City, Maryland.

Then there's Princess, a 5-foot-6-inch-long, 125-pound female mako shark. After swimming south in August and looping back around toward shore, she last pinged in on September 1 at 4:33 p.m. a little southeast of Jones Beach.

Sometimes sharks will go from pinging in every day to not pinging in for months, suggesting a behavioral shift, Mr. Fischer said. This could mean Princess is foraging down deep and not sticking her fin out of the water, necessary to catch a signal, he said. On the other hand, it could also mean she has been caught by another angler or commercial gear or had a tag failure.

Mr. Fischer said one of the things that was most significant about the effort is that the all-release tournament brought together recreational anglers with local scientists and the public.

"The cool thing is because we open-source everything in real-time, the whole world gets to follow at the same time as the PhDs, and that's cool," he said.

Carl Darenberg, the owner of Montauk Marine Basin and tournament host, said everyone has been shocked at how far the sharks have swum and that he plans for a similar tournament next year. "I think it's the wave of the future," he said. "These sharks have to be taken care of."

Sean and Brooks Paxton, who are also known as the "Shark Brothers," and who played a leading role in bringing the tournament format to Montauk, said it combines the goals of sport, science and conservation, an "effort to replace the spectacle of dead sharks hanging at the dock with something more of a spectator sport," Sean Paxton said.