

# Off South Africa's coast, great white sharks are threatened

August 23 2016, by Renee Graham

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In this Aug. 11, 2016, photo, a great white shark swims past researchers as they chum the ocean looking for sharks in the waters off Gansbaai, South Africa. Extensive research by shark expert Michael Rutzen and his marine biologist partner Sara Andreotti has found that great whites off the South African coast are rapidly heading for extinction. (AP Photo/Schalk van Zuydam)

On the edge of a boat off this coastal village, Michael Rutzen stubs his cigarette into a soda can and stares pensively out to sea.

He has free-dived with great white sharks for nearly 20 years, and he has

never known it to be this difficult to find them.

Extensive research by Rutzen and his marine biologist partner, Sara Andreotti, has found that great whites off the South African coast are rapidly heading for extinction. The area long has been one of the world's best places to see the sharks, which also live off Australia, the United States and Japan.

Streams of fish blood and oil trail in the water behind other cage-diving boats nearby. Rutzen phones one of his spotters, who has been searching for hours.

"Nothing here, let's move on," Rutzen tells his crew.

Rutzen started free-diving with the sharks in 1998 to show they are not the monstrous creatures they are portrayed to be. He has built a successful business in Gansbaai's shark diving industry, which has prided itself on almost guaranteed interactions with great whites and has boomed in the past two decades.

His clients have included Halle Berry, Matt Damon and Brad Pitt, the king of Jordan and Prince Harry.



In this Thursday, Aug. 11, 2016, photo, a great white shark tries to bite a fish head being trolled through the water as researchers chum the ocean looking for sharks off Gansbaai, South Africa. Extensive research by shark expert Michael Rutzen and his marine biologist partner, Sara Andreotti, has found that great whites off the South African coast are rapidly heading for extinction. (AP Photo/Schalk van Zuydam)

But while it once was not unusual to see 15 to 20 great white sharks per trip, Rutzen now counts himself lucky if he sees one or two.

Andreotti, who works with Rutzen to photograph and take DNA samples from sharks, estimates there are 333 breeding animals left in the area. For a healthy, growing population there needs to be at least 500, she says. The sharks here have not been known to breed with sharks from other parts of the world.

"The great white sharks on the South African coast are heading for extinction," Andreotti says. "That has massive implications for the

ocean's ecology. White sharks are top predators. They are much like lions. If you take top predators out of the environment, the rest of the environment will collapse."

The conservation group WWF has warned that the number of great whites is decreasing worldwide.



In this Thursday, Aug. 11, 2016, photo a man throws a fish head into the ocean to be pulled through the water as researchers look for sharks in the waters off Gansbaai, South Africa. Extensive research by shark expert Michael Rutzen and his marine biologist partner, Sara Andreotti, has found that great whites off the South African coast are rapidly heading for extinction. (AP Photo/Schalk van Zuydam)

The White Shark Research Group, a team of scientists studying all major areas where the sharks gather off South Africa, believes the study done in Gansbaai needs further research. The study assumes that

Gansbaai "represents the entire South African white shark population. However, we are not convinced that this is true," said Alison Kock, a member of the research group.

She said it is possible that the total population has been underestimated, but she agrees that the sharks are low in number and vulnerable to humans' impact. "This would not be the first time that estimates of population sizes of white sharks and other species have been disputed," Kock said in an email. "It is a consequence of the difficult nature of such investigations."

With fewer great whites as predators in the local waters, the population of Cape fur seals has grown rapidly, which has a negative effect on fish populations and the rest of the ecosystem.

Pollution, baited hooks and shark nets are some of the main factors behind the decline in the number of great whites.



In this Thursday, Aug. 11, 2016, photo, small fish follow a boat of researchers as they chum the ocean looking for sharks in the waters off Gansbaai, South Africa. Extensive research by shark researcher Michael Rutzen and his marine biologist partner, Sara Andreotti, has found that great whites off the South African coast are rapidly heading for extinction. (AP Photo/Schalk van Zuydam)

"We are polluting the oceans, and as top predators they tend to accumulate heavy metals in their bodies and that can be very detrimental for their survival," Andreotti says.

Poaching is another problem. "People want the jaws of a great white shark hanging in their pub," she says.

Both Rutzen and Andreotti believe that great white sharks, which are listed as vulnerable animals by the Convention on International Trade in Endangered Species, should be listed as endangered species at the next CITES conference in South Africa in September.

After several hours out at sea and two brief shark sightings, Rutzen and his team pull up the anchors.

"Within three years, all the great white sharks off the shore of Gansbaai will be gone, mark my words," Rutzen says.



In this Thursday, Aug. 11, 2016, photo, birds follow a boat of researchers as they chum the ocean looking for sharks in the waters off Gansbaai, South Africa. Extensive research by shark expert Michael Rutzen and his marine biologist partner, Sara Andreotti, has found that great whites off the South African coast are rapidly heading for extinction. (AP Photo/Schalk van Zuydam)



In this Thursday, Aug. 11, 2016, photo, the fin of a great white shark is seen swimming a past research boat in the waters off Gansbaai, South Afric. Extensive research by shark expert Michael Rutzen and his marine biologist partner, Sara Andreotti, has found that great whites off the South African coast are rapidly heading for extinction. (AP Photo/Schalk van Zuydam)





In this Thursday, Aug. 11, 2016, photo, shark researcher Michael Rutzen, left, prepares a shaft used to take DNA samples from great white sharks as part of his research in waters off Gansbaai, South Africa. Extensive research by Rutzen and his marine biologist partner, Sara Andreotti, has found that great whites off the South African coast are rapidly heading for extinction. (AP Photo/Schalk van Zuydam)



In this Aug. 11, 2016, photo, a great white shark swims past as researchers chum the ocean in the waters off Gansbaai, South Africa. Extensive research by shark researcher Michael Rutzen and his marine biologist partner, Sara Andreotti, has found that great whites off the South African coast are rapidly heading for extinction. (AP Photo/Schalk van Zuydam)



In this Aug. 11, 2016, photo, Marine biologist Sara Andreotti, left, holds her camera as she waits for great white sharks as part of her researcher in the waters off Gansbaai , South Africa. Extensive research by Andreotti and her shark expert partner Michael Rutzen has found that great whites off the South African coast are rapidly heading for extinction. (AP Photo/Schalk van Zuydam)



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