

Are sharks gathering to mate off North Carolina? Mission launched to prove it's true

March 2 2022, by Mark Price



Credit: CC0 Public Domain

A shark hunt that could make history is being staged off North Carolina,

as a team of scientists set out to prove this is the coastline where great white sharks gather annually to mate in the Western Atlantic.

To accomplish the seemingly impossible task, the nonprofit OCEARCH intends to capture as many sharks as possible over 20 days and run tests on them. The expedition starts March 4 and will continue through March 24.

"In order to confirm this region as a white shark mating site, [blood samples](#) will be collected to measure reproductive hormone levels," OCEARCH said in a release.

"In addition, ultrasound images of the ovary and testes and semen samples from mature male animals will be assessed. Together these samples and diagnostic images will help determine if the adult white sharks present in the Carolinas region, during this season, are reproductively active."

OCEARCH has been a chief proponent of the North Carolina mating theory, after its researchers learned many of the 83 sharks it has tagged in the North Atlantic were converging off the state from late January to through March.

Then something even stranger happens: The females head out alone into open water ocean.

It's suspected this happens because they are pregnant and the trek into deeper waters is a way to avoid aggressive males as they gestate, OCEARCH says.

"We don't know why the sharks use this place to mate, but our indirect evidence of their mating condition and coming together in this spot at this time leads us to believe this is when and where they mate in the

Western North Atlantic," OCEARCH Chief Scientist Dr. Bob Hueter told McClatchy News.

"The males continue their north-south movements with the seasons along the coast and continental shelf, only occasionally venturing far offshore."

If the theory is proven, it would mean North Carolina's coast is brimming with [great white sharks](#) for about two months out of the year. Hueter wouldn't venture to guess how many are off the coast during this mating period. "We just know that the sample size we've tagged is probably a tiny fraction of the number of sharks out there," he says.

The challenges for the mission will be many, including finding and sampling "a specific size class of an animal in a specific region," OCEARCH officials said.

The team must also contend with seasonally "tumultuous weather" off the Carolinas and treacherous currents. The latter is due to the Outer Banks being a spot where warm Gulf Stream waters collide with southbound cold North Atlantic currents, experts say.

Hueter says finding where and when white sharks mate off the East Coast is the "last critical piece of the puzzle" scientists are missing in understanding the species.

"If we're able to do so, it will be the first time in history that a white shark mating site will be identified," OCEARCH founder Chris Fischer said in the release.

"This location will be crucial to monitor into the future as we continue to enjoy our slow and steady white shark population recovery off the eastern seaboard and Atlantic Canada."

The expedition will launch from Charleston, South Carolina, with representatives from 30 institutions collecting data for 24 separate research projects, according to a release.

©2022 The Charlotte Observer.

Distributed by Tribune Content Agency, LLC.

Citation: Are sharks gathering to mate off North Carolina? Mission launched to prove it's true (2022, March 2) retrieved 26 April 2024 from <https://phys.org/news/2022-03-sharks-north-carolina-mission-true.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.