

Orcas covered in scars left by 'cookiecutter sharks' may be new population, study says

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A killer whale leaps out of the water when swimming—a behaviour known as porpoising. Credit: Minette Layne/Wikipedia/CC

A group of killer whales spotted hunting off the coast of California and Oregon over two decades may actually be their own unique population of animals, a new study says.

When the notorious black fin of an orca emerges from the waves, it is

almost always followed by another and then another.

The social, family-oriented animals travel in pods, part of larger populations of animals that hunt the same species and circulate the same waters.

But a new study published in the journal *Aquatic Mammals* suggests there is a group of killer whales that have gone uncategorized by researchers.

"The open ocean is the largest habitat on our planet, and observations of killer whales in the high seas are rare," study author Josh McInnes, a master's student at the University of British Columbia's Institute for the Oceans and Fisheries, said in a March 15 news release. "In this case, we're beginning to get a sense of killer whale movements in the open ocean and how their ecology and behavior differs from populations inhabiting coastal areas."

To do this, McInnis and others examined sightings and photographs of 49 different orcas from 1997 to 2021 to see if they had been cataloged in any other existing [orca population](#).

Orcas live in three different ecotypes, or classifications. Resident orcas stay close to the shore and feed primarily on salmon along the west coast of Canada and into the Pacific Northwest of the U.S., the researchers said. Transient orcas also visit coastlines, but they spend some of their time in deeper waters in the northern Pacific, feeding on pinnipeds and cetaceans. Offshore orcas feed on sharks and larger fish in deeper water still, rarely, if ever, coming close to the shore.

The researchers collected examples and evidence of killer whales traveling even further out to sea, miles from the coastline.

When they compared the photos of the animals to known populations, they didn't match, the study said.

The orcas have only been spotted nine times, the researchers said, but it's enough for a "solid hypothesis," according to the release.

They also had odd scarring that doesn't appear on other orcas, the study said.

"A key clue to the new population's presumed habitat range lies in cookiecutter shark bite scars observed on almost all the orcas," according to the release. "This parasitic shark lives in the open ocean, meaning the new population primarily inhabit deep waters far from land."

Cookiecutter sharks attach to the orcas, eventually leaving behind small, circular scars that were observed in photos of the animals.

"In one of the first encounters researchers had with a pod of these oceanic killer whales, they were observed taking on a herd of nine adult female [sperm whales](#), eventually making off with one. It is the first time killer whales have been reported to attack sperm whales on the west coast," McInnes said. "Other encounters include an attack on a pygmy sperm whale, predation on a northern elephant seal and Risso's dolphin, and what appeared to be a post-meal lull after scavenging a leatherback turtle."

The researchers said deep-sea anglers and passengers on ships have made it a "hobby" to try and find the whales, going as far as to buy camera equipment to get better photos of the sightings.

"It's pretty unique to find a new population," co-author and Institute for Oceans and Fisheries professor Andrew Trites said in the release. "It takes a long time to gather photos and observations to recognize that

there's something different about these killer whales."

More information: Josh D. McInnes et al, Evidence for an Oceanic Population of Killer Whales (*Orcinus orca*) in Offshore Waters of California and Oregon, *Aquatic Mammals* (2024). [DOI: 10.1578/AM.50.2.2024.93](#)

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