

Sharks choose who they hang with, researchers reveal

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A white shark (*Carcharodon Carcharias*). Credit: Wikimedia Commons

White sharks form communities, researchers have revealed.

Although normally solitary predators, [white sharks](#) (*Carcharodon*

carcharias) gather in large numbers at certain times of year in order to feast on baby seals.

These groupings, scientists had assumed, were essentially random—the result of individual sharks all happening to turn up in the same area, attracted by abundant food.

Now, however, a group of researchers including behavioral ecologist Stephan Leu from Macquarie University in New South Wales, Australia, have used photo-identification and network analysis to show that many of the [apex predators](#) hang out in groups which persist for years.

To make the findings, Leu and colleagues including Charlie Huveneers and others from Flinders University and the Fox Shark Research Foundation, both in South Australia, as well as French government research organization CNRS, spent four and half years taking multiple photographs of almost 300 white sharks gathered around a seal nursery in the Neptune Islands in the Great Australian Bight.

Through the images they were able to identify individual sharks and, to their surprise, found that many were seen in proximity to specific others far more often than chance would determine.

"Rather than just being around randomly, the sharks formed four distinct communities, which showed that some sharks were more likely to use the site simultaneously than expected by chance," says Dr. Leu.

"The numbers varied across time, and we suggest that sex-dependent patterns of visitation at the Neptune Islands drive the observed community structure.

"Our findings show that white sharks don't gather just by chance, but more research is needed to find out why."

The paper—published in the journal *Behavioural Ecology and Sociobiology*—is the latest research to change perceptions about the behavior of apex fish.

In August 2019 another group of scientists, led by Macquarie University's Robert Perryman, established that manta rays (*Mobula alfredi*) also have structured and persistent social relationships that can be described as communities.

More information: Adam Schilds et al. Evidence for non-random co-occurrences in a white shark aggregation, *Behavioral Ecology and Sociobiology* (2019). [DOI: 10.1007/s00265-019-2745-1](https://doi.org/10.1007/s00265-019-2745-1)

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