

Dolphins sponge up culture: study

July 31 2012



Bottlenose dolphins that have learnt to use sea sponges as hunting tools form cliques with others that do the same -- the first evidence of animal grouping based on mutual interest, a study said.

Bottlenose dolphins that have learnt to use sea sponges as hunting tools form cliques with others that do the same -- the first evidence of animal grouping based on mutual interest, a study said Tuesday.

The finding may represent the first known proof of cultural behaviour in the animal kingdom, US-based researchers wrote in a paper in *Nature Communications*.

They studied a group of [bottlenose dolphins](#) at Australia's Shark Bay, some of whom had learnt the skill of "sponging" -- slipping a sponge on their beaks as protection against sharp rocks while scouring the [ocean floor](#) for prey.

Based on 22 years of observations, the team found that the "spongers" forged closer ties with other spongers than with dolphins that had not acquired the hunting technique.

"Like humans who preferentially associate with others who share their subculture, tool-using dolphins prefer others like themselves, strongly suggesting that sponge tool-use is a cultural behaviour," wrote the researchers from Georgetown University in Washington.

Sponging is a solitary activity.

"Dolphins don't sponge together but can identify who sponges and who doesn't," study author Janet Mann told AFP.

"Spongers spend a lot of time hunting, tend to be solitary, but clearly go out of their way when they can to meet up. You could think of them as workaholic dolphins that prefer to meet up with the other workaholics."

The study forms part of an ongoing scientific quest for proof of animal culture -- loosely defined as a form of social learning that differentiates between groups.

The first spongers were discovered among Indo-Pacific bottlenose dolphins in Shark Bay in the mid-1980s, and scientists believe they may have been using this hunting technique for centuries.

Normally, when some members of an [animal group](#) develop tool-use, the rest learn it too, as with chimpanzees using sticks to fish termites out of their nests or elephants swatting flies with tree branches.

But in the case of the Shark Bay dolphins, only the calves of sponger females become spongers themselves, and the practice remains limited to a small subset -- less than five percent of the 3,000-odd population,

and mainly females.

No other example of sub-culture has ever been shown outside of humans, said the study.

"This was the first study to show that a non-human animal groups on the basis of ... behaviour even though they don't engage in the behaviour together," said Mann.

"This is more similar to how we think of human culture."

Their intelligence and communication skills make [dolphins](#) popular subjects for such research.

(c) 2012 AFP

Citation: Dolphins sponge up culture: study (2012, July 31) retrieved 26 April 2024 from <https://phys.org/news/2012-07-dolphins-sponge-culture.html>

<p>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.</p>
--