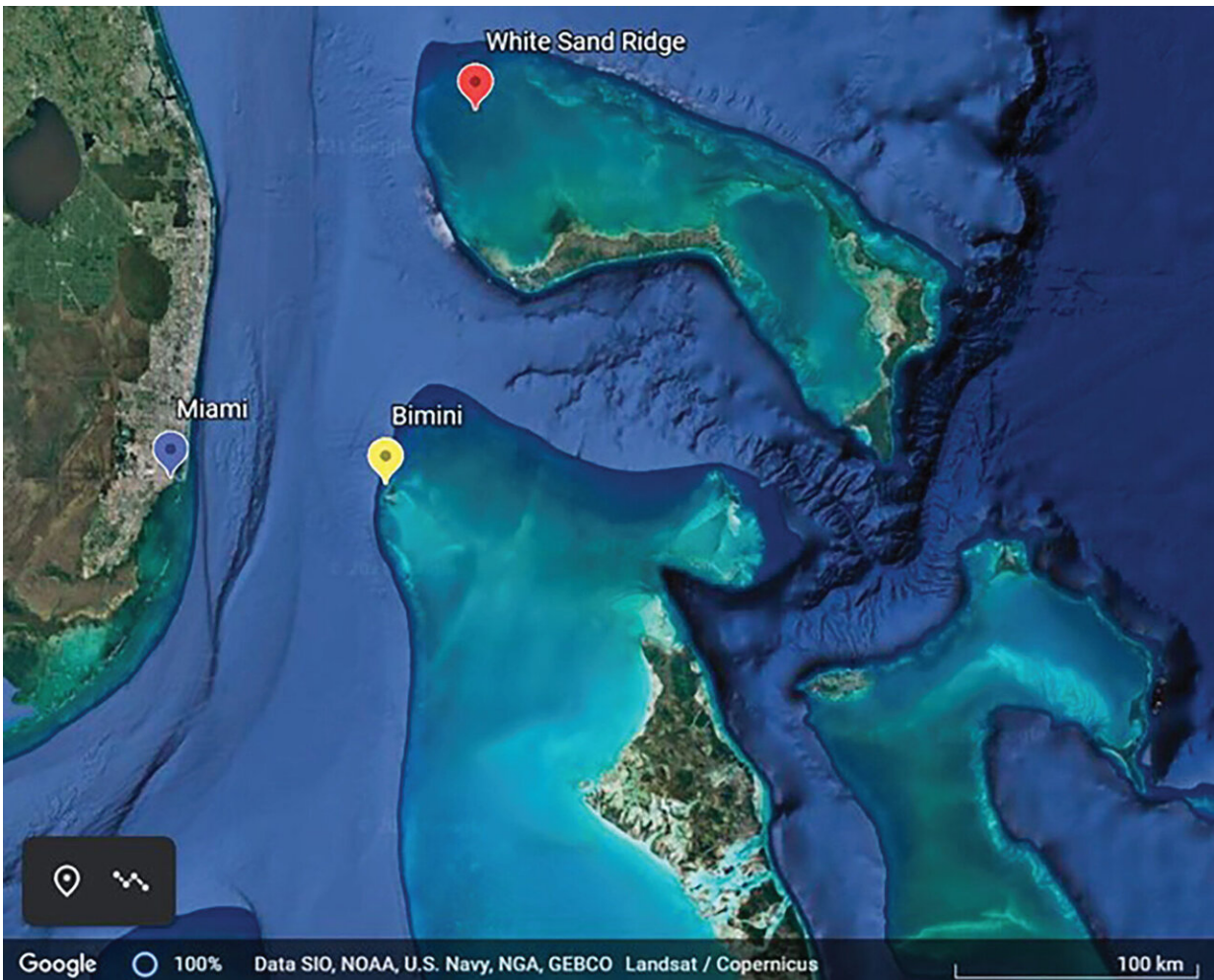


# Dolphins form rare alliance near Bimini, scientists say

August 11 2022, by JoAnn Adkins



Map of The Bahamas in relation to southern Florida, USA, focused on the Little Bahama Bank and the northern Great Bahama Bank. The yellow marker indicates the Bimini islands that are approximately 80 km east of Miami (blue marker). The red marker shows the approximate location known as the WSR on

the Little Bahama Bank, approximately 160 km north of the northernmost edge of the Great Bahama Bank. Map credit: Google Earth. Credit: *Royal Society Open Science* (2022). DOI: 10.1098/rsos.211963

Dolphins are known to be good at maintaining relationships, but a new study suggests their gregarious nature may extend beyond their own social circles.

In a rare alliance, FIU post-doctoral researcher Nicole Danaher-Garcia says two communities of Atlantic spotted [dolphins](#) around the Bahamas have actually joined together, forming their own complex society. She calls the merger a partial one, since only some dolphins from one group mingle with the other, but even a partial merger is not something Danaher-Garcia and the team of researchers expected to see.

"We'll see [small groups](#), maybe a couple of younger males, depending on the species, that will move between areas," Danaher-Garcia said. "But for two large groups to come together is very unexpected."

The fact that the dolphins from the two different groups actually swim together, exhibit bonding behaviors and possibly even mate likely means the dolphins have adapted over time, learning to let their guard down—at least to animals that are similar to them. Traditionally dolphins form alliances to keep their group together for protection, and also to ward off other dolphins that might try to gain access to a group's female population for mating. But when Danaher-Garcia was out observing a familiar group of dolphins, she noticed something different. Actually, she noticed 10 somethings different—dolphins she had not seen before with this group.

Originally separated by 100 miles and a channel, one group of these

Atlantic spotted dolphins was known to frequent the waters near Bimini while the other resided near White Sand Ridge. Danaher-Garcia is a member of the Dolphin Communication Project, a collaborative team of scientists who have been observing, studying and photographing the dolphins in these areas for more than two decades.

Danaher-Garcia was taking photographs that day on the boat when she saw the newcomers that appeared to be friends with the Bimini dolphins. The researchers later compared those photos to photos from other research trips in Bimini and other areas including White Sand Ridge. Based on unique markings, they were able to match those dolphins and others to pictures previously taken of the community from White Sand Ridge. This sent Danaher-Garcia's research in a new direction.

The research team collected data for five years, completing hundreds of surveys, before halting their fieldwork due to the COVID-19 pandemic. During that time, they observed mixed groups throughout every field season and no intergroup aggression, which is common among dolphins to protect their territory. Even more surprising, the mixed group of dolphins actually exhibited bonding behaviors indicating they welcomed the outsiders.

What exactly is driving this peaceful integration remains an unknown to scientists. It's possible the groups are spending more time together out of view, working together to fend off predators at night to feed in deeper waters. Or it could be a natural adaptation related to changing environmental conditions. Danaher-Garcia says this evolution of social tolerance among these spotted dolphins merits further study.

Perhaps more importantly, these dolphins have given the researchers even more to think about on the conservation front.

"The climate is changing and suitable ranges for a lot of species are

shrinking. Groups will likely have to share the same space as habitat availability decreases," Danaher-Garcia said. "One important question related to conservation is how these group mergers will affect the species. We can imagine that [loss of habitat](#) will have detrimental effects on population sizes but will mixing social groups also put them at risk?"

The research findings were published this week in *Royal Society Open Science*.

**More information:** Nicole Danaher-Garcia et al, The partial merger of two dolphin societies, *Royal Society Open Science* (2022). [DOI: 10.1098/rsos.211963](#)

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