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Dorsal Detectives

WELL KNOWN FOR THEIR MARINE RESEARCH, HARBOR BRANCH SCIENTISTS ALSO RUSH TO THE AID OF IMPERILED DOLPHINS, WHOSE INDIVIDUAL IDENTITIES THEY OFTEN KNOW

BY CHRIS FASOLINO

Harbor Branch's Tracy Kowalczyk is the principal photographer for the dolphin study and identification program.

The humorist Douglas Adams once made a wry case for the intelligence of dolphins. Humans, he pointed out, think they are more intelligent “because they have achieved so much more—the wheel, New York, wars, and so on,” whereas all the dolphins have ever done is play around in the water enjoying life. Yet perhaps dolphins think that they are more intelligent than humans “for precisely the same reasons.”

Whatever you think of Adams’s theory, the intelligence of dolphins and their apparent sense of joyfulness make them truly beloved creatures. Many people choose dolphins as one of their favorite animals. Yet, although they are so endearing to humans, dolphins face many challenges that are caused by humans. For dolphins in our area, help is being provided by programs at Florida Atlantic University Harbor Branch Oceanographic Institute.

In conjunction with their research mission, Harbor Branch personnel are involved in dolphin rescue teams. Rescue missions may be needed when dolphins become entangled in fishing line, rope, or other debris left by humans. In one Harbor Branch rescue, a baby dolphin had become stuck in an open-centered plastic Frisbee. In another case, a dolphin became entangled in a lanyard that had ended up in the water. The dolphin had been trying to play with the lanyard and had found it to be a dangerous toy.

Dolphins may also need help if they go too far into fresh water and become stranded; in the long run, fresh water is unhealthy for these marine mammals.

For dolphin rescues, Harbor Branch personnel work with other

organizations in Florida, including Clearwater Marine Aquarium, where they have transported seriously injured dolphins for care and rehabilitation. The aquarium is famous for the *Dolphin Tale* movies and the inspiring story of Winter, the dolphin that was fitted with a prosthetic tail in 2007.

What is involved in dolphin rescue? Steve Burton, director of FAU Harbor Branch’s Marine Mammal Stranding and Population Assessment team, explains: With the help of other licensed rescue groups, “we will catch the dolphin with a net, take photos, disentangle it, and take photos of the injury. We may collect a blood or respiratory sample.” Depending on the injury, the team veterinarian may administer an antibiotic to fight infection. Then, the dolphin is released—free to roam the waters once again.

What should you do if you see a dolphin that appears to need help? Call the Florida Fish and Wildlife Conservation Commission at 888-404-3922 (FWCC). How else can you help dolphins? Boaters are urged to slow down when they see dolphins or any other marine mammals. “Give them their space,” says Burton. “And if you’re fishing, pull your line up. The dolphins have already scared the fish away, in any case. So just wait for the dolphins to swim by. And if you do entangle a dolphin in your fishing line, call the help number! It’s better that we get help to the animal.”

Besides rescue missions, Harbor Branch also carries out a program of study and identification—all based on the dolphin equivalent of fingerprints. Did you know that the dorsal fin of each dolphin is unique? The notches and nicks on each dorsal fin form a distinctive pattern that



Dolphins are known for their playfulness, intelligence, and curiosity. Their apparent joie de vivre places them among the most beloved marine creatures. A remora tags along for the ride with this breaching dolphin.

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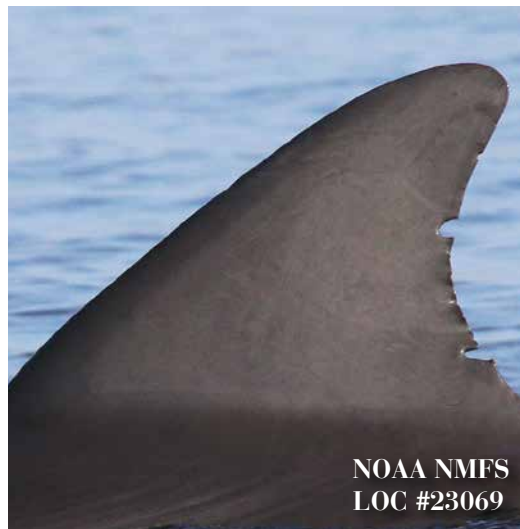
Citizen scientists participate in research by documenting dolphin sightings.



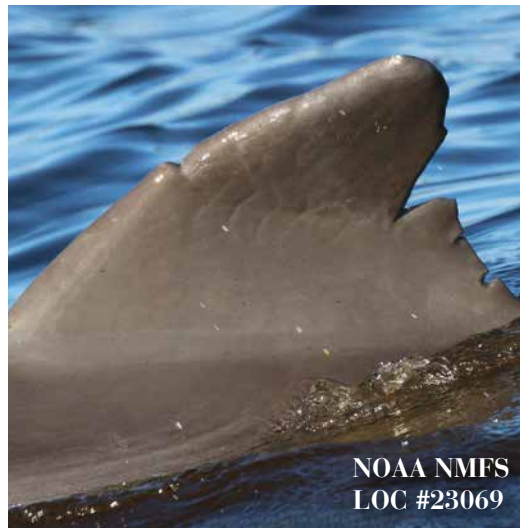
Steve Burton directs the Marine Mammal Stranding and Population Assessment team.

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“Misy” was found in 2011 entangled in fishing line. She is still seen in Treasure Coast waters today.



“Regr” is the mother of Misy, who survived due to the help she received from a Harbor Branch rescue team.

is used for identification of individuals. Like detectives with a book of fingerprints, Burton and his team of experts maintain photo files with hundreds of close-up views of dorsal fins. In the Indian River Lagoon, there are more than 200 dolphins with photos in the file.

Each month, Burton and his Harbor Branch team conduct reconnaissance by boat from Sebastian Inlet in the north to Jupiter Inlet in the south, searching for dolphins and photographing their dorsal fins. Every dolphin is given a name, and staff members like Tracy Kowalczyk, a Marine Mammal Stranding and Population Assessment assistant, are expert in identifying them.



Trips out to photograph dolphins are dependent on the weather. The team has learned to study the notches, shapes and lines on the dorsal fins to identify each dolphin photographed.

With just a glance at a dorsal fin photo, Kowalczyk can quickly recognize a dolphin by name.

“With older dolphins, the notches get more defined,” she says, as older dolphins are more likely to have picked up scars. However, even if the dolphin appears to have a smooth fin, Kowalczyk has learned to perceive subtle differences. “You look at little notches, or even the shape of the fin. Some fins are more wavy than others. Some have squiggle lines that we call ‘lasagna.’”

Kowalczyk is also a principal photographer for the project. While voyaging on one of Harbor Branch’s boats, she uses a telephoto lens to zoom in on the dorsal fins of any dolphins they encounter. These trips are dependent on the weather, not only for the usual reasons of nautical safety, but also because in rough waters, a silvery-gray dorsal fin is easily concealed by waves.

The project is complemented by Harbor Branch’s “Dolphin Spotter” program, a citizen science project. Interested? You can enroll in the

program and then take photos of any dolphins you see from land; then, you submit the photos and the GPS location to Harbor Branch. “The key is that it is land based,” Burton emphasizes. “We will not accept photos from somebody’s boat. We don’t want people chasing dolphins.” Efforts of photographers on the shore can be a valuable supplement to the work of Burton, Kowalczyk, and the team. After all, Burton says, “We can’t cover the whole river.” To view a video tutorial about the Dolphin Spotter program and register to participate, visit fau.edu/hboi/citizen-science.

As is often the case with scientific discovery, the Harbor Branch programs have led to answers that in turn raise more questions. For example, there is abundant evidence that there are more dolphins in the river in wintertime, but the reason remains a mystery. “I believe it’s prey shifts—they’re following the prey,” says Burton. “That’s a hypothesis I’ve had for 15 years. However, it’s not proven yet.”

“You look at the little notches, or even the shape of the fin. Some fins are wavy. Some have squiggle lines that we call ‘lasagna.’”

– TRACY KOWALCZYK

Burton hopes to someday work with fisheries to track the kinds of fish that dolphins feed on, and then see how that relates to the movements of the dolphins themselves.

As fascinating as it is to learn more about dolphins, it is the rescue missions that are especially satisfying. As Kowalczyk says, “That’s why we do what we do—well, along with helping researchers, but it’s all hand in hand.”

Some rescue stories are even multigenerational. An especially rewarding tale was that of a dolphin

named “Regr” and her daughter, “Misy.” (The designations assigned in the study are always four characters, but these names are pronounced “Regrow” and “Missy.”) In 2011, when Misy was just a baby, she became entangled in fishing line. The line was wrapped around her body and her flippers. She was still able to nurse from her mother, but the line was wrapped so tightly that she could not get free. Regr could not help her, and eventually it would have gotten worse, with fatal consequences. The Harbor Branch

crew came to the rescue, disentangling the line and saving the baby dolphin’s life. Today, they still see Misy in Treasure Coast waters. And now she is all grown up with a baby of her own.

It’s a rescue story that has spanned three generations of dolphins. And it’s emblematic of the work that the dedicated people at Harbor Branch do to help these wonderful creatures—so that dolphins can keep on joyfully swimming, leaping, and playing in the waters of the Treasure Coast. 🌊



Large mammal rescue missions extend to manatees as well. Steve Burton works in conjunction with other agencies to help injured manatees return to the wild.