

Florida turtle habitat nearly wiped out by Hurricane Irma

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Rachel Santulli works for Marine Turtle Research Group at Archie Carr National Wildlife Refuge in Brevard County, Florida. She monitors nighttime nesting of sea turtles, surveying hatching activity at daybreak. During an excavation, she found a live, baby green turtle. She released it and watched as it crawled into the Atlantic surf. Photo by: Kevin Spear/Orlando Sentinel/TNS.

Beaches in south Brevard County in Florida are a major refuge for sea turtles. Until last month, these beaches were home to a record number of sea turtle nests. Then Hurricane Irma hit Florida.

About half of nearly 16,000 green turtle nests were destroyed in the storm. Scientists called this a "devastating" blow to the threatened species.

But the big picture for green turtles looks much better. Scientist Kate Mansfield thinks Irma may prove to be a blip in their survival history. Mansfield is an expert on sea turtles. She is in charge of the University of Central Florida (UCF) Marine Turtle Research Group.



In the 1980s, green turtles rarely appeared at Central Florida's Atlantic Ocean beaches. Over time, that changed. The number of green turtles grew so large that it eventually beat the number of loggerhead turtles this year.

This trend is largely due to laws passed in the United States and around the world. Some of the measures protect nests and eggs. Others discourage the use of bright lights on beaches. These lights can disorient the creatures.

Mansfield thinks this positive trend will continue. "If we keep having these big turtle turnouts on the beach, I think we are going to do all right," she said.

But there's still one thing to worry about, she and other experts said. It's the number of damaging storms that continue to crash into Florida.

"One year's storm is sad but not a big deal in the big scheme of things," said Simona Ceriani. She is a scientist with the Florida Fish and Wildlife Conservation Commission. "It's the frequency of storms that matters."

Turtles Make Headway Before Hurricane Irma

Ceriani said green turtles were having great success leading up to Irma.

Sea turtles on Florida's east coast suffered the most, she said. They were hit harder by the storm than those along the west coast and Panhandle.

For more than 30 years, the UCF turtle group has been studying sea turtles. The scientists focus on the Archie Carr National Wildlife Refuge. This is a protected area for sea turtles. It spans 20 miles along Brevard and Indian River counties. Turtle activity there makes up about one-third of all nesting in the United States.

Plowing Up Sand For Thousands Of Nests

This summer, stretches of Archie Carr looked as if they had been bombed. It's what happens when turtles plow up sand for thousands of nests.

UCF turtle scientists have mental maps of the beach. They have learned how to read the jumble of holes, humps and tracks.

"We have GPS, but I've been on this beach so many times I don't really need it," said Rachel Santulli. She is a UCF graduate who now works for the turtle group.

The scientist pointed out a turtle's track along a giant "S" route. She explained how the turtle had moved around looking for the best place to nest. Santulli also found a place where a turtle had nested on top of another nest.

That's a sign of how densely packed the beach is with nests. Another sign of the intense activity at Archie Carr is what's missing. The beach does not have the wood stakes and signs usually found at other beaches.

The stakes would prevent the turtles from moving around, Santulli said.



Making sense of tracks and nests is best done in the evening, she said. That's because the sun is low and shadows are more pronounced.

A gritty task for her came after the sun was higher and hotter. Santulli dug through a nest where eggs had hatched.

The effort was to document the number of empty shells and the nearly dozen that failed to hatch. Some were filled with a thick, stinking liquid.

Also deeply buried was a living, wiggling hatchling. Unlike its siblings, it wasn't able to tunnel out of the nest.

"Nothing beats this," Santulli said as she carried the hatchling to the sea. "This is definitely one of the best parts."