

Red tide is back in Florida and rare egrets are at risk

December 2 2019, by Jenny Staletovich



Credit: CC0 Public Domain

A lethal Gulf Coast red tide that littered beaches with dead wildlife in

2018 is back and this time around, it's claiming one of North America's rarest bird species.

Earlier this month, two reddish egrets tagged as part of a research project on the dwindling species died from likely red [tide](#) poisoning in the Ding Darling Wildlife Refuge on Sanibel Island, Fla. Since they were tagged in 2014, the birds provided a trove of information to scientists trying to understand why the species never fully recovered from the devastating plume trade a century ago.

"These birds are giving us a signal," said zoologist Ken Meyer, director of the Avian Research and Conservation Institute in Gainesville, Fla., which led the study. "It might seem insignificant, but what they're revealing to us is that the problems that we already know are a problem, are not going away. They're only getting worse."

The birds were prime examples of the 2-foot-tall egrets best known of their dinner dance. In 2014, Meyer outfitted five birds with \$4,000 trackers after Ding Darling hired the institute to study the small family of egrets at the refuge. Wildlife managers want to better understand why reddish egrets around Florida have continued to flounder.

Like other wading birds, reddish egrets were nearly hunted to extinction during the plume trade. In the 1920s and '30s, none could be found in Florida. And unlike other [wading birds](#) that recovered, Meyer said, their numbers remained small, with just a few hundred counted in the state.

For plume hunters, reddish egrets were particularly prized for the burnt orange feathers that adorn their long necks.

"They have sort of a slightly reddish brown back, but a very distinctly reddish plumage on their neck and on their head," Meyer said.

They're also a favorite among birders, wowed by mating colors and fishing maneuvers.

During the mating season, their beaks turn bright pink. When they hunt, the egrets spread their wings, casting a shadow to corral baitfish that they then spear with pointy beaks. As they pursue their prey, they may hop in and out water, run sideways on pencil-thin blue legs or skip and spin.

"They sort of look inebriated," Meyer said.

That odd foraging behavior may also be part of the reason the birds' numbers remain so low, he said. Researchers believe they need [clear water](#) and a hard bottom to maneuver during these dramatic hunts. By comparison, other egrets will fish in any kind of water, taking a slower, more methodical approach. A muddy bottom doesn't seem to bother them.

Those specific feeding habits can also make reddish egrets fiercely competitive and territorial, meaning they tend not to move around much, Meyer said. When their habitat deteriorates, the birds can suffer as well. Meyer estimates only about 350 to 400 breeding pairs remain in Florida.

The two research birds, named Ding #2 and Darling, were particularly valuable because they lived in and near the protected refuge. That appears to have helped them survive about twice as long as reddish egrets Meyer has studied in the Keys, where car strikes and other predators are more common. The birds' radio trackers quit last year after batteries expectedly ran out, but the birds could frequently be spotted along the four-mile Wildlife Drive that runs the length of the refuge.

Last week, Meyer got word from the Clinic for the Rehabilitation of Wildlife in Sanibel that Ding #2 had been found in bad shape, showing signs of red tide poisoning. Rescuers said they couldn't save the bird. A

few days later the second tagged egret, Darling, was brought in, also showing signs of red tide poisoning. The egret was unable to stand or eat on its own and died four days later.

In a blog post, Meyer called Ding #2 an icon of research, "contributing over 8,000 precise locations as he fed, rested, roosted, nested, and graced us with his presence ... Ding#2's data represent a priceless conservation legacy, making his debilitation and death, almost certainly the result of yet another severe invasion of red tide, all the sadder."

Meyer said while the bird survived last year's [red tide](#) algae bloom, October concentrations of the toxic algae appeared to be higher and more toxic.

Blooms at the refuge cleared up at the end of last year, he said, but in the summer began to reappear. In October, water sampling by the Clinic for the Rehabilitation of Wildlife showed even higher concentrations, he said, leading to an increase in bird deaths in general.

According to reports, the number of animals they treated rose from nine the first week of October, when seven birds and two sea turtles were brought (in addition to the discovery of a dead turtle) to 25 the third week of November. Of the 24 birds treated, eight died.

Meyer worries that while red tides occur naturally, and egrets and other birds have likely survived centuries of tides, manmade pollution and climate change are making the tides worse and more lethal. Warmer ocean temperatures can allow more of the *Karenia brevis* algae, which grow on the bottom of the Gulf, to move shoreward, he said. When that festering tide collides with coastal pollution and nutrient-filled water from polluted Lake Okeechobee, it can explode, as it did in 2018.

"We've known for decades that this was coming. Exactly what's

happening was predicted," he said. "The only way we're going to save [birds](#) like the reddish egrets, and save ourselves, is to address those large scale problems."

©2019 Tampa Bay Times (St. Petersburg, Fla.)
Distributed by Tribune Content Agency, LLC.

Citation: Red tide is back in Florida and rare egrets are at risk (2019, December 2) retrieved 3 May 2024 from <https://phys.org/news/2019-12-red-tide-florida-rare-egrets.html>

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.