

Latest red tide bad news: It's killing royal terns and sending some humans to emergency room

This time, it seemed to start with the birds: royal terns keeling over on the Sanibel Causeway, cormorants staggering loopily on the beaches, flopping into the surf. Then came the fish: scores of black drum littering Fort Myers Beach; then the sea turtles washing onto the sand or into back bays – all victims of the latest wave of havoc wrought by red tide.

Friday, a public notice went up, warning the public about red tide at gulf-side Lynn Hall Park, just across the road from the foot of the Matanzas Pass Bridge on Fort Myers Beach. Over the past three months, similar warnings have appeared on Sanibel, Captiva and Bonita Springs after researchers began sounding the alarm that red tide had returned to area waters in December.

This naturally occurring microorganism has become unnaturally ferocious and tenacious in recent years. Caused by the diatom *Karenia brevis* and commonly called a harmful algae bloom, red tide has become a fixture on the news, a

worry for would-be tourists and a persistent plague for wildlife and humans sensitive to its toxins.

For weeks, there have been reports of dead fish on area beaches, often swiftly whisked away by cleaning crews, but statistics are difficult to procure. Repeated requests to the Florida Fish and Wildlife Conservation Commission for information on how many and what kind of fish are dying were not immediately returned.

"We did have insane amount of fish that were dying a while ago," said Brittany Piersma, shorebird steward for Audubon of the Western Everglades, who patrols Marco Island, "but not recently." She thinks they die offshore in the Gulf, "then the west wind brings them in – that's the time we're going to be seeing them."

In January: [Red tide: When will it go away? Patchy blooms along Southwest Florida coastline persist](#)

More: [Researchers warn red tide is back in Southwest Florida](#)

Red tide appears to be affecting humans as well. Records requested by The News-Press from Florida's Department of Health showed over a five-day stretch starting Jan 7, Lee and Collier counties saw four emergency room visits from "possible red tide associated illness": three in Collier; one in Lee.

Area wildlife hospitals are used to seeing brevetoxicosis, the illness caused by red tide, in a handful of species. Appearing particularly susceptible are fish, sea turtles and some birds like pelicans and cormorants (Sanibel's Clinic for the Rehabilitation of Wildlife's Brian Bohlman calls them "the poster child for red tide poisoning).

But this is the first time in memory royal terns have been so hard hit. These shore-dwelling birds with punk rock-looking jet black crests make their living by plunge-diving for prey, laying their eggs in sandy nests where both parents care for the young.

On Collier's Marco Island, shorebird steward Piersma has seen both sick and dead royal terns as she patrols the shoreline. But she points out that even though the birds may be winding up on the beach, they could well have become ill farther out.

"Birds are a good indicator of what's going on offshore because they dive way out in the Gulf for fish," she said.

Piersma also points out that recently appearing windrows of empty shells, while a boon to collectors, can also be a danger sign. "All the shells can mean those organisms are suddenly dying off."

More: [Nearly three years after devastating red tide, harvest](#)

[ban remains in place for three species](#)

More: [Researchers growing fish stew to simulate red tide conditions](#)

In Naples, the Conservancy of Southwest Florida's von Arx Wildlife Hospital has seen an increase in royal tern admissions, which is decidedly unusual, said Director Joanna Fitzgerald.

In the space of six days, Feb. 7 through the 13th, she said, "We had 83 royal terns admitted which is more than we had for the total of 2020." Some have been admitted with fishing hook and line injuries and most of the birds have come in underweight, which may be a function of the illness.

The situation is similar on Sanibel. Since 2021 began, CROW's hospital has admitted 90 royal terns. By way of comparison, during all of 2020, it admitted 49. Such a difference in numbers, Bohlman says, "Really shows 'Hey, something's going on here.' "

But researchers are still working on what, exactly, that is.

Eric Milbrandt, director of the Sanibel-Captiva Conservation Foundation's marine lab and his staff are writing a rapid response grant proposal to try to figure it all out.

"It's been bad," he said. "Going over the bridge every day,

I've seen a lot of (distressed) birds. They're sitting on the rail, and one day I had to chase two of them because they were standing in the middle of the road in the afternoon with cars going by, People were ready to run me over, because I'm trying to get these terns out of the road," he said, shaking his head.

With more research, he says, scientists can better understand the terns' feeding habits: "What their prey items are and what is it about those prey items that may be concentrating the toxin." Milbrandt thinks a phenomenon called bioaccumulation may be at work, in which tiny creatures consume *Karenia brevis* diatoms, small critters eat the tiny ones, medium-sized critters eat the small ones and by the time top-of-the-line animals eat the medium-sized ones, the toxins have become dangerously concentrated.

"So the bioaccumulation theory seems to make sense," Milbrandt said. "The most simple thing may be that the fish are eating the *Karenia* (red tide organism) and the birds are eating a lot of the fish," said Milbrandt. The grant would allow him to "look at the isotopic food web and try to understand primary versus secondary consumers and maybe figure it all out," he said. The nonprofit should know if it's been approved in a couple of weeks.

The spate of deaths is particularly – and coincidentally – poignant for Milbrandt's foundation, because it came just as

the nonprofit rolled out a new logo, which happens to feature a royal tern over its mission: "Connecting you to nature."

The shorebird represents "the space where land and water connect," SCCF Director Ryan Orgera said in a video announcing the change. "(The birds) are also an important reminder of all the monitoring and research work that we do on various species of wildlife. Connecting you to nature is SCCF's ethic," Orgera said. "We want to empower you to protect and care for our coastal ecosystems."

To that end, Orgera and advocates like Fitzgerald and Piersma urge regular people to pitch in.

"I always plug for people to take action" Fitzgerald said. "Go to the beach prepared and be ready to make a difference. People tell me, 'Oh, I'm from Illinois or Wisconsin; I can't catch a sick pelican,' but I tell them, 'Yes, you can.'"

Though red tides have occurred throughout Florida history, many water quality scientists say it can be fed by human-sourced nutrients when the blooms get close to shore. A recent University of Florida peer-reviewed study blamed "anthropogenic nitrogen runoff" for the growth of blooms near Charlotte Harbor and suggested that blooms could be reduced controlling pollution coming from the landscape.

More: [Is red tide here? Tools to help beachgoers plan ahead](#)

Earlier this year: [Red tide patches move along Southwest Florida coast](#)

Piersma hopes people will take personal responsibility for water quality. "A lot of time people think red tide comes from one source (but) it can be fueled by so many different things," she said. When citizens choose to reduce their pollution footprint with something as simple as changing fertilizer use, "That can make a big difference," she said.

On Fort Myers Beach, Jacki Lyszak, executive director of its chamber of commerce, said her town is in the fight against red tide for the long haul. In the past, she said, "there may have been some who want to just brush it under the rug," and there may still be, Lyszak said, but things are changing as awareness builds.

"Sure, we don't want the bad news, but we can't fix it if we're trying to cover it up – we have to find solutions, whether its changing fertilizer on your lawn or changing septic to sewer or street projects to improve stormwater runoff," she said. "We're all rowing together to fix this."

And, Lyszak said, the beach is counting on visitors who love the island and this region to carry the message back with them.

"We have to educate to advocate ... We need our visitors to

go home and contact their representatives. We need other states to pull for us, and if we're hiding things, how can we advocate?

"If you want to enjoy our water, we need you to fight from that end too."