

# Are you heading to Florida's Gulf Coast? Beware of red tide affecting several spots

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A bloom of the toxic algae known as red tide continued to plague parts of Southwest Florida's coastline over the past week with fish kills and respiratory irritation.

Red tide has persisted since October, when elevated levels of algae reached the coast shortly after Hurricane Ian stirred up the Gulf of Mexico.

"By virtue of killing fish, it generates its own nutrient supply," University of South Florida emeritus oceanography professor Robert Weisberg said in October, when the bloom was just beginning to appear on the radar. "Once it does that, it's off and running, and it's very hard to stop it."

As for what causes a bloom to dissipate, scientists still don't have a solid answer. However, historical patterns have confirmed a typical pattern for the blooms, according to Cynthia Heil, director of Mote Marine Laboratory's Red Tide Institute in Sarasota: A red tide usually starts in late summer or fall, lasts five to seven months and ends by spring.

As the densest part of the current bloom has drifted north in recent days, algae levels have lessened somewhat around Sarasota County, but reports of dead fish and breathing irritation continue to come in from the county's public beaches, including Siesta Key. The bloom's presence is also stronger around Anna Maria Island and Tampa Bay, [water samples](#) and local reports show.

It is also wrapping around the south end of Pinellas County, where impacts have already begun to hit some beaches.

In Manatee County, fish kills and respiratory irritation were reported in Anna Maria, Holmes Beach and Bradenton Beach this week. Water samples collected by Florida Fish and Wildlife Conservation Commission and partners last week confirmed red tide's presence.

Wildlife officials determine the severity of the algae by measuring the number of cells of *Karenia brevis*—the microscopic organism that

causes red tide—found in a liter of water. At levels of medium and above, the algae is considered to be at bloom strength, and it is more likely to cause harmful impacts to human health and the environment.

In Manatee County waters, medium concentrations of red tide were detected at the Rod and Reel Pier in Anna Maria and off the northeast side of the island on Monday. Low levels were found near Longboat Pass to the south and the Sunshine Skyway Bridge to the north. High levels were found northwest and much farther offshore, near the mouth of Lower Tampa Bay.

In all, red tide was detected in 76 water samples off of Hillsborough, Pinellas, Manatee, Sarasota, Charlotte, Lee and Collier counties over the last week, FWC said in an update.

## **Red tide impacts sensitive habitat in Sarasota Bay**

Red tide does more than foul beach conditions on the Gulf side of the barrier islands. The algae can also build up in the Intracoastal Waterway, where it has the potential to concentrate in [shallow waters](#) and damage sensitive marine habitats.

The current red tide bloom has persisted at high levels in the Intracoastal waters of Sarasota Bay for several weeks. The bay, which borders Sarasota and Manatee counties, has already been hit hard by red tide in recent years. Scientists largely blame the blooms for wiping out decades of seagrass recovery there.

As an estuary, Sarasota Bay and its seagrass meadows and oyster beds play an important role as a haven for manatees, dolphins, sport fish and countless other forms of marine life, according to the Sarasota Bay Estuary Program.

"Eighty to 90 percent of Florida's commercially valuable fish and shellfish species spend part of their lives in an estuary," SBEP's field guide to the bay says.

Though red tides are naturally occurring, a growing body of evidence suggests that human pollution can fuel the blooms and make them worse once they get near the coast.

Climate change's ongoing impacts on [natural phenomena](#), including more intense hurricanes, changes in rain amounts and warmer water temperatures, also have the potential to help harmful algal blooms thrive, according to the Environmental Protection Agency.

Locally, water quality advocates stress the importance that people can have in curbing algae blooms by reducing sources of pollution to area waters; those sources include wastewater spills, leaky septic tanks, pet waste that isn't picked up and misuse of lawn fertilizer.

Changes in our infrastructure and habits could take some of the pressure off of already imperiled water bodies, they argue.

## **Restoring the health of the water**

In a virtual water quality round table on Monday, [local government officials](#) and scientists weighed in on the state of local waterways, including red tide's role.

The intensity of the current red tide bloom is likely the result of polluted runoff after Hurricane Ian, Sarasota Bay Estuary Program Director Dave Tomasko said—a mix of unpredictable natural forces and preventable human pollution.

The estuary program and its partners found elevated levels of bacteria,

algae and nutrients in the bay in the weeks following Ian.

Tidal exchange between Sarasota Bay and the Gulf of Mexico gradually brought the levels back down, Tomasko explained. But there was a down side.

"We pushed a lot of these nutrients out into the Gulf of Mexico," Tomasko said. "Sarasota Bay getting better by tidal exchange actually probably helped to create a red tide that was bigger than it would have been without the effects of Hurricane Ian."

Now the water quality balance in the bay is being upset again as red tide moves in.

Despite the setbacks, Tomasko said restoring its health is within reach.

"We're trying to manage the bay by managing nutrient loads," Tomasko said.

SBEP has calculated that it will take a nutrient load reduction of about 20% to restore waters to much healthier levels observed between 2006 and 2012.

"We have more than enough we can act upon," Tomasko said. "Spills and overflows, septic tanks, reclaimed water, stormwater. If we make a big amount of action on all of those things, we're going to be able to get back to the [nutrient] load we had when we were a healthier bay. And we're going to be able to, we believe, hold the line on population growth over the next 30 years."

## **Red tide forecast**

The National Oceanic and Atmospheric Administration forecasts the

respiratory threat from red tide. On Thursday, NOAA warned of a moderate to high risk of respiratory irritation on the coasts of Pinellas, Manatee and Sarasota.

The respiratory risk is most likely when winds are blowing on or along the shore.

A red tide forecast from University of South Florida predicts that low to medium levels of the algae will persist around Anna Maria Island through last weekend. The strongest concentrations are predicted around the north end of the island as well as in Intracoastal and near the mouth of Palma Sola Bay.

A continued northward spread towards Pinellas County is predicted, with low to high levels of red tide around Fort De Soto Park, Shell Key Preserve and the southern tip of the county.

A patchy spread of very low to high levels of red tide are predicted to continue along Sarasota County's coastline.

## **Red tide safety tips**

The Florida Department of Health in Manatee County gives the following red tide safety tips:

- Look for informational signage posted at most beaches.
- Stay away from the water.
- Do not swim in waters with dead fish.
- Those with chronic respiratory problems should be especially cautious and stay away from these locations as red tide can affect your breathing.
- Do not harvest or eat molluscan shellfish or distressed or dead fish from these locations. If caught live and healthy, finfish are

safe to eat as long as they are fileted and the guts are discarded.  
Rinse filets with tap or bottled water.

- Wash your skin and clothing with soap and fresh water if you have had recent contact with red [tide](#).
- Keep pets and livestock away and out of the [water](#), sea foam and dead sea life. If your pet swims in waters with [red tide](#), wash your pet as soon as possible.
- Residents living in beach areas are advised to close windows and run the air conditioner, making sure that the A/C filter is maintained according to manufacturer's specifications.
- If outdoors near an affected location, residents may choose to wear masks, especially if onshore winds are blowing.

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